



General Certificate of Education

Psychology 2004

Specification Support Document

This document should be read in conjunction with:

Specification

Specimen and Past Papers and Mark Schemes

Examiners' Reports

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Introduction

This Specification Support Document has been provided to assist teachers and lecturers in their preparation for the delivery of courses based on the AQA Advanced Subsidiary (AS) and Advanced (A2) Level in Psychology Specification A 2004 Onwards. It replaces the Teachers' Guide issued at the launch of the new specification in September 2000 and addresses changes to the specification associated with the Review of Curriculum 2000.

The document should be read in conjunction with the specification. Details of any amendments to the document will be notified to centres both in print and on the website www.aqa.org.uk/qual/gceasa/psyA.html (*Hyper-link to AQA Psychology A specification*). The specification is no longer re-issued annually but will remain in force until further notice. The version on the website will be updated and become the definitive version of the specification.

How to use this Support Document

The document has been divided into three sections. The first section focuses on the AS examinations, the second moves onto look at the A2 written examinations and the final section considers the A2 coursework unit. Each section offers advice and guidance in the planning of the courses, explaining the different question styles of the assessment units and suggests possible resources which may be of use in the delivery of the specification.

AS Examination (5181)

Specification at a glance

AS Examination 5181	
Unit 1 (PYA1)	
1 hour	33.33% of the total AS marks <i>(16.67% of the total A Level marks)</i>
2 structured questions chosen from 4: Cognitive Psychology, Developmental Psychology (candidates must answer one from each section)	
Unit 2 (PYA2)	
1 hour	33.33% of the total AS marks <i>(16.67% of the total A Level marks)</i>
2 structured questions chosen from 4: Physiological Psychology, Individual Differences (candidates must answer one from each section)	
Unit 3 (PYA3)	
1 hour	33.33% of the total AS marks <i>(16.67% of the total A Level marks)</i>
1 structured question chosen from 2: Social Psychology	
1 short answer question: Research Methods	

Jargon Buster

In order to make this document as useful as possible you will need to be clear on what each term used refers to:

- A **unit** is the term given to describe each exam, e.g. Unit 1.
- A **module** is the teaching content of each unit, e.g. Cognitive Psychology and Developmental Psychology constitute one module.
- Each module is separated into two **sections**. In Module 1 the two sections are Cognitive Psychology and Developmental Psychology.
- Each section is subdivided into **subsections** e.g. Cognitive Psychology is subdivided into three subsections: (a) short-term and long-term memory, (b) forgetting and (c) Critical issue: eyewitness testimony.

Examination Availability and Regulations

Availability

Each examination is available in both the January examination series and the summer examination series. All three AS examinations are sat on the same day; in one examination session; either a morning session or an afternoon session.

Examination Timetable

Centres have the authority to decide the order in which to conduct examinations for candidates taking two or more unit tests in a session. Centres have authority to give candidates a supervised break between unit tests within a session.

Each examination should be treated separately. At the start of each exam the relevant question paper should be given out to candidates and then collected in after the time permitted; 1 hour. The next paper should then be issued to candidates and then once more collected at the end of the examination.

If you are in any doubt with regards to the administration of the examinations you should in the first instance contact your examinations officer. If you require further clarification the subject department should be contacted.

Re-sits

With effect from 1 January 2004 the restrictions on re-sitting units are being removed. Students will, therefore, be able to re-take units more than once. When an entry is made for certification, the best attempt will count towards the final award. This change will apply to all students, including those who have already been entered for any units or full qualifications.

Further detailed information can be obtained from: www.jcgq.org.uk (*Hyper-link to website*)

Question Styles

The Assessment Objectives

Candidates are assessed on three skills:

AO1 knowledge and understanding of psychological theories, terminology, concepts, studies and methods and communication of knowledge and understanding of psychology in a clear and effective manner.

AO2 analysis and evaluation of psychological theories, concepts, studies and methods and communication of knowledge and understanding of psychology in a clear and effective manner.

AO3 design, conduct and report psychological investigation(s) choosing from a range of methods, and taking into account the issues of reliability, validity and ethics, and collect and draw conclusions from the data.

Quality of Written Communication (QoWC)

Candidates are assessed on quality of written communication in all assessment units. Candidates will be assessed according to their ability to:

- Select and use a form and style of writing appropriate to purpose and complex subject matter;
- Organise relevant information clearly and coherently, using specialist vocabulary when appropriate;
- Ensure text is legible, and spelling, grammar and punctuation are accurate, so that meaning is clear.

Question Formats (except Unit 3: Research Methods)

- On each paper, two sections are examined. For example Unit 1 consists of the two sections: Cognitive Psychology and Developmental Psychology.
- There are two questions provided for each section and candidates are required to select one question from each section.
- Each question is marked out of 30 marks.
 - AO1**, description will always make up 18 marks.
 - AO2**, evaluation and commentary will always make up 12 marks.
- Each question consists of 3 parts, Part (a), (b) and (c).
 - Parts (a) and (b) are each worth 6 AO1 marks.
 - Part (c) is always worth 18 marks, composed of 6 AO1 marks and 12 AO2 marks.

- On some occasions part (c) will include a quotation. For example:
“Some of the procedures used by social psychologists such as Asch, Zimbardo and Milgram are ethically questionable.”
Briefly outline some of the procedures used in social influence research (theories **and/or** studies) and evaluate whether these procedures are ethical. (18 marks)
The quotation is intended as a ‘helpful hint’ to candidates in various ways. In the example above the intention is to remind candidates of the range of research that they might include in their answer and also emphasise that procedural detail is required. In other questions it may be that the quotation helps the candidate structure their response, or may offer them a starting point for their essay.

In all cases candidates must take care to focus on the question. Candidates will never be required to address the quotation on an AS unit exam.

- Candidates have about 30 minutes to answer each question, giving a notional ‘mark per minute’. In fact they have slightly less because of time taken to select which question to answer. However the marks allocated per question are a useful guide to how much time to spend on each part of the question (thinking and writing time).
- Across the two questions for each section the three subsections of the specification will be sampled. Note that in each question the whole specification for that section will not necessarily be covered. It is possible, for example, that two of the subsections will appear in one question, and the other question could then sample one subsection only.
- Any subsection of the specification including the ‘critical issue’ may appear in any part of the question.
- Numbers are provided in questions to assist candidates in knowing the breadth of response required. For example ‘Describe **one** explanation of majority influence and **one** explanation of minority influence. (3 marks + 3 marks)’ or ‘Outline and evaluate **two** explanations of forgetting in short-term memory’. (18 marks)

Question Formats - Unit 3: Research Methods

- In research methods only one question is set.
- The research methods question will consist of 3 AO1 marks, 6 AO2 marks and 21 AO3 marks.
- This means the main emphasis will be on questions that require candidates to **use** their knowledge of research methods (AO3 style questions) rather than explaining the terms/concepts (AO1). Thus, when a question includes the phrase ‘...in the context of this study candidates must contextualise their answers.

Types of Question

Examination questions are based on the wording of the specification. An example of this can be seen by looking at one area of cognitive psychology. The specification states 'Research into the role of emotional factors in forgetting, including flashbulb memories and repression (e.g. Freud).' This means that questions may be asked about defining terms or about research into these areas but candidates would not be asked to explain why flashbulb memories happen nor would they be asked about Freud's view on repression.

On the other hand, the part of social psychology that says 'Research studies into conformity (e.g. Sherif, Asch, Zimbardo) and minority influence (e.g. Moscovici, Clark). Explanations of why people yield to majority (conformity) and minority influence.' Means that candidates could be asked about research studies in these areas, they could be asked to define the terms and also could be asked to explain why people yield to majority and minority influence. Again they could not be asked to describe the specific studies mentioned (e.g. Asch, Moscovici) because these are given as examples only.

Finally, in the part of physiological psychology that says 'The body's response to stressors, including the General Adaptation Syndrome (Selye)' candidates could be asked to describe the body's response to stressors and could also be asked to describe the General Adaptation Syndrome, and might also be asked about Selye.

Across the whole specification there are 5 main classes of question: terms/concepts, research studies, research, theories/explanations and criticisms. In order to help teachers, further clarification and examples of each are given below.

Terms and Concepts.

A list of all the possible terms and concepts in the specification is provided on page 11. For research methods, a thorough knowledge and understanding of the terms in the specification is required.

Some examples:

- What is meant by the following ... (2 marks + 2 marks + 2 marks)
- Explain what is meant by the following ... (3 marks + 3 marks)
- Describe **two** differences between... (3 marks + 3 marks)

Research Studies.

Questions may be asked about the aims, procedures, findings, conclusions and criticisms (APFCC) of research studies **but only related to selected topics**. A list of these topics is provided on page 12.

Some examples:

- Describe the [aims/ procedures/ findings/ conclusions/ criticisms] of one study of ... (6 marks)
Any two (aims, procedures, findings, conclusions, criticism) will be selected for any one question.

Outline the findings of **one** study of ... and give **one** criticism of the study. (3 marks + 3 marks) In these questions the two components are marked separately.

- Outline the findings of studies of.... (6 marks)
- Outline the conclusions of studies of.... (6 marks)
- Outline and evaluate two studies of.... (18 marks)

Research

Research can be related to any area of the specification. The specification does not use the term ‘research’ in conjunction with every topic, but such questions are nevertheless legitimate because research (theories, explanations and/or studies) has to be covered as part of delivering any topic. In such questions candidates may report findings/conclusions from one study or from many studies, but the topic areas for such questions are drawn from the *entire specification* as distinct from the restricted list for APFCC studies.

Some examples:

- Outline the findings of research into ... (6 marks)
- Describe the conclusions of research into ... (6 marks)

Theories and Explanations

Theories and explanations as detailed in the specification.

Some examples:

- Describe/outline **one** theory of... (6 marks)
- Describe/outline **one/two** explanations of ... (6 marks) or (3 marks + 3 marks)
- Describe/outline **two** factors which explain ... (3 marks + 3 marks)
- Give **two** criticisms of... (3 marks + 3 marks)

Criticisms

Criticisms, related to any area of the specification. Criticisms can be positive or negative.

Note that ‘strengths and weaknesses’ will only be asked where this has been identified in the specification.

Some examples:

- Consider **two** ... in terms of their strengths and weaknesses. (18 marks)

Terms and Concepts

Candidates need to know the meaning of the following terms and concepts.

Unit 1: Cognitive and Developmental Psychology			
Capacity Duration Encoding Eyewitness testimony Forgetting Flashbulb memory Long-term memory	Memory Multi-store model Repression Reconstructive memory Short-term memory	Attachment Cognitive development Cross-cultural variations Day care Deprivation Insecure attachment	Privation Secure attachment Separation Social development
Unit 2: Physiological Psychology and Individual Differences			
Cardiovascular disorders Control General adaptation syndrome Immune system Life changes Physiological approaches to stress management	Psychological approaches to stress management Stress Stress management Stressors Workplace stressors	Anorexia nervosa Abnormality Bulimia nervosa Cultural relativism Deviation from ideal mental health Deviation from social norms	Eating disorder Failure to function adequately Statistical infrequency
Unit 3: Social Psychology and Research Methods			
Conformity/majority influence Deception Ecological validity Ethical guidelines Ethical issue Experimental validity Informed consent Minority influence Obedience to authority Protection of participants from psychological harm Social influence	<i>Research methods questions will be asked that contain the following terms, including 'Explain what is meant by ...' where appropriate.</i> Bar charts and histograms Control Correlational analysis Correlation coefficients Demand characteristics Dependent variable Directional hypothesis Ethics Experimental/alternative hypothesis Experimental design	External (ecological) validity Field experiment Frequency polygons Improving reliability Improving validity Independent groups Independent variable Internal validity Interview Investigator effects Laboratory experiment Matched pairs Measures of central tendency Measures of dispersion Natural experiment Naturalistic observation Negative correlation	Non-directional hypothesis Null hypothesis Operationalisation of variables Pilot study Positive correlation Qualitative data Questionnaire survey Random sampling Reliability Repeated measures design Research aims Research design Research method Scattergraphs Selection of participants Validity

Research Studies – APFCC Studies

Questions will only be asked about aims, procedures, findings and conclusions (as well as criticisms) in relation to the studies listed in the middle column below. Questions may be asked about non-emboldened areas, but no examples are provided because emboldened studies can be used.

	APFCC questions will be asked <i>only</i> in the following <i>topic</i> areas:	In APFCC questions you <i>could</i> use any of these studies. These are intended as <i>examples</i> only. Candidates are not required to know more than <i>one</i> APFCC study in any topic area.
Cognitive psychology	Encoding in STM	Conrad (1964), Baddeley (1966)
	Capacity in STM	Simon (1974), Baddeley <i>et al.</i> (1975)
	Duration in STM	Peterson & Peterson (1959), Sebrechts <i>et al.</i> (1989)
	STM	Can use any study of STM
	Encoding in LTM	Can use study of encoding in STM which includes LTM
	Duration in LTM	Bahrick <i>et al.</i> (1975), Shepard (1967)
	LTM	Can use any study of LTM
	Flashbulb memory	Brown & Kulik (1977), McCloskey <i>et al.</i> (1988), Conway <i>et al.</i> (1994)
	Repression	Williams (1994), Levinger & Clark (1961), Myers & Brewin (1994)
	Emotional factors in forgetting	Can use study of repression or flashbulb memory
	Reconstructive memory	Bartlett (1932), Cohen (1981), Wynn & Logie (1998)
	Eyewitness testimony	Loftus & Palmer (1974), Loftus <i>et al.</i> (1987), Yuille & Cutshall (1986)
Developmental psychology	Secure/insecure attachments	Ainsworth & Bell (1970), Van Ijzendoorn & Kroonenberg (1988)
	Cross-cultural variation	Van Ijzendoorn & Kroonenberg (1988), Takahashi (1990)
	Individual differences	Can use study of secure/insecure attachments or cross-cultural variation
	Effects of deprivation/separation	Bowlby (1944), Bowlby <i>et al.</i> (1956)
	Related to Bowlby's maternal deprivation hypothesis	Can use study of long-term effects of deprivation.
	Effects of privation	Hodges & Tizard (1989), Rutter <i>et al.</i> (1998)
Physiological psychology	Stress and cardiovascular disorders	Friedman & Rosenman (1959, 1974), Rozanski <i>et al.</i> (1999)
	Stress and the immune system	Cohen <i>et al.</i> (1993) Kiecolt-Glaser <i>et al.</i> (1995)
	Stress and physical illness	Can use study of cardiovascular disorder or the immune system
	Life changes	Rahe <i>et al.</i> (1970), Moos & Swindle (1990)
	Workplace stressors	Johansson <i>et al.</i> (1978), Marmot <i>et al.</i> (1997)
	Sources of stress	Can use study of life changes or workplace stressors
Individual differences	Biological explanations of anorexia	Holland <i>et al.</i> (1988), Lambe <i>et al.</i> (1997)
	Psychological explanations of anorexia	Garner <i>et al.</i> (1980), Henninghausen <i>et al.</i> (1998)
	Biological explanations of bulimia	Kendler <i>et al.</i> (1991), Wade <i>et al.</i> (1998)
	Psychological explanations of bulimia	Nasser (1986), Ruderman (1986), Field <i>et al.</i> (1999)
	Biological/psychological explanations of eating disorders	Can use any of above studies
Social psychology	Conformity/majority influence	Asch (1951 and 1956), Zimbardo <i>et al.</i> (1973)
	Minority influence	Moscovici <i>et al.</i> (1969), Nemeth <i>et al.</i> (1974)
	Obedience	Milgram (1963), Hofling <i>et al.</i> (1966), Meeus & Raajmakers (1995), Bickman (1974)

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Assessment Issues

Marking Schemes

Marking schemes are available via the Publications Department ([Hyper-link to http://www.aqa.org.uk/public/index.html](http://www.aqa.org.uk/public/index.html)) and are published on the AQA website. ([Hyper-link to www.aqa.org.uk/gceasa/psyA-assess.html](http://www.aqa.org.uk/gceasa/psyA-assess.html).)

The marking scheme consists of:

- The **Marking Criteria** which is the **guide** as to what is required in the answer to the question. The intention is to indicate how candidates may answer the question and how examiners should deal with special cases, such as partial performance. The criteria are not intended to be a comprehensive review of the question area. They are written for examiners to use and not as teaching content guidance.
- The **Marking Allocation** indicates the way marks will be awarded. In each division of the marking allocation there is question-specific material to indicate how answers will be differentiated.

Partial Performance

In questions where plurality is required (e.g. ‘**two** studies’ or ‘**two** explanations’) partial performance penalties will be applied when only one study or explanation (etc.) is presented.

In questions with aims and conclusions, or procedures and findings, where the candidate only provides one of these (e.g. aims only) then partial performance is reflected in the marking allocation. However, for full credit an evenly balanced answer is not required. For example, a number of conclusions but only one aim could potentially attract full marks.

Positive Marking

On all questions in the exam, except for those in research methods, examiners use positive marking. This means that, if a candidate is asked to describe **one** explanation of attachment, and two explanations are provided, the examiner will mark both explanations and award marks for the better of the two.

In the research methods section, positive marking is **not** used. Here, the examiner only marks the first answer given. This is because of the nature of the material in this section. For example, a candidate might be asked to state the independent variable and provides both the independent and dependent variable, not knowing which is which. To resolve this problem examiners are directed to consider only the first answer.

Criteria for Assessing AO1

The main criteria for assessing **AO1** are accuracy and detail. In a three mark question, full marks are awarded for an answer that is accurate and detailed. Two marks are given for an answer that is limited, generally accurate and/or less detailed. One mark is given for an answer that is basic, lacking detail and may be muddled and/or flawed. An answer that is inappropriate or incorrect receives zero marks.

In a six mark question, there are three ‘bands’, each equivalent to the descriptors outlined above. So 5 or 6 marks are given to an answer that is accurate and detailed; 3-4 marks are given for an answer that is limited, generally accurate and/or less detailed; and 1-2 marks are given to an answer that is basic, lacking detail and may be muddled and/or flawed. Examiners decide between marks within a band by using the ‘magnet’ effect. For example, if an answer is limited and generally accurate, then the examiner must consider whether there is more evidence of the qualities in the band below (basic, lacking detail, etc.) or towards the band above (accurate and detailed). This determines whether a mark of 3 or 4 is given.

In cases where the descriptors don’t fit the answer exactly, for example an answer might be limited but accurate, then the examiner selects the descriptor that *best* fits the answer.

Summary of Mark Allocations for AO1

6 Marks	3 Marks	Descriptors
6-5	3	Accurate and detailed
4-3	2	Limited, generally accurate and/or less detailed
2-1	1	Basic, lacking detail, may be muddled and/or flawed
0	0	Inappropriate or incorrect

Criteria for Assessing AO2

The main criteria for assessing **AO2** are quality of the commentary and analysis, and the extent to which material has been used effectively.

Commentary refers to any statement which establishes the value, usefulness or meaning of the descriptive content of the answer (e.g. a criticism of a study or an application of a theory).

Analysis is the process of breaking a topic area into constituent parts or identifying different parts of a question that need to be addressed.

Effective use of material. Candidates must make explicit how the material being presented addresses the question. Candidates may intend to present a particular study as a criticism of a theory, however, all they do is **describe** the study and fail to use it as a criticism. This is an example of ineffective use of material.

Summary of Mark Allocations for AO2

Marks	Commentary	Analysis	Use of material
12-11	Informed	Reasonably thorough	Effective
10-9	Reasonable	Slightly limited	Effective
8-7	Reasonable	Limited	Reasonably effective
6-5	Basic	Limited	Reasonably effective
4-3	Superficial	Rudimentary	Minimal interpretation
2-1	Just discernible	Weak and muddled	Mainly irrelevant
0	Wholly irrelevant	Wholly irrelevant	Wholly irrelevant

Criteria for Assessing AO3

This criteria is only assessed on research methods. Accuracy and detail are again the main criteria. For top marks candidates usually also have to set their answer in the context of the study. For example, if a candidate is asked 'Explain why a pilot study may have been used in this study. (3 marks)' then candidates will only get the full three marks if they describe one advantage of a pilot study but do this within the context of the study described at the start of the question. (All research methods questions start with a brief description of a psychological study.)

The first answer below would receive two out of three marks. It is accurate and detailed but not set in context, whereas the second answer would receive three marks:

1. The researcher would use a pilot study because this means you can see if all aspects of the design are going to work. If not then you could put it right.
2. The researcher would use a pilot study to check that the questions on the questionnaire were not ambiguous and that the participants could understand the instructions. Any ambiguity could then be changed.

Exemplar Responses to Summer 2003

Unit 3: Question 2

- (a) Outline **two** psychological processes that may be involved in obedience to authority. (3 marks + 3 marks)
- (b) Outline the findings of **one** study of minority influence and give **one** criticism of this study. (3 marks + 3 marks)
- (c) “Some of the procedures used by social psychologists such as Asch, Zimbardo and Milgram are ethically questionable.”

Briefly outline some of the procedures used in social influence research (theories **and/or** studies) and evaluate whether these procedures are ethical. (18 marks)

(see Appendix – Mark Scheme, page 104)

Candidate A

(a) With obedience an individual will do as a figure of authority wishes as the figure is seen as having more power and so must be obeyed. Also the situation may lead to obedience such as being in a prestigious university building.

(b) Asch conducted a study using a card with three lines each of a different length. The participants then had a card with one line on it that was the exact same length as the one with three lines on it. Three stooges took part in the experiment. They picked a line out of the three that obviously didn't match up and was wrong. Participants then began to question their answers and many changed their answers even though they were obviously wrong, although there were a few participants who didn't change their answers despite the stooges. The study failed to alter the answers of all the participants, proving that minority influence does not depend on stooges being persistent with their answers.

(c) Stanley Milgram conducted an experiment using psychology students at a University. He and the student participants would wire a stooge to a generator (although the generator did not actually give shocks to the stooge. Participants and stooges were in separate booths. Milgram said that the experiment was to find out the effects of punishment on learning and the stooge would give worse and worse shocks throughout the experiment if something was forgotten. The participants were asked by Milgram to increase the shocks given to the stooge to dangerous levels, the stooge would scream as the intensity of the shocks increased. Many of the participants continued to administer shocks even though there was no sound coming from the stooge's booth. Many participants protested but were prompted by Milgram to increase the intensity of the shock using sentences such as 'You must complete the experiment' or 'You must continue'.

Many of the participants felt they had to continue with the experiment as Milgram was of higher status than themselves and were obedient. Many were afraid that if they didn't finish the experiment it would affect their grades. Milgram went against many ethical guidelines. He used gross deception, the participants felt that they could not withdraw from the experiment because of Milgram's status. This experiment could have caused psychological or emotional harm to the participant by thinking they may have seriously hurt someone. Milgram's study received a large amount of criticism from other psychologists who believed the experiment to be very unethical. Participants were not debriefed.

(see Appendix – Responses, page 108)

Candidate B

(a) Agentic state theory: This is when you see yourself as an agent of someone else and you believe they will take responsibility for the consequences so you obey.

Buffering: This is when you don't see the consequences of your actions, therefore obedience levels increase.

(b) Moscovici 'calling a blue slide green'

Findings: - Approximately 8% of participants were influenced by the minority in the consistent group
 - Approximately 1% of the participants were influenced by the minority in the inconsistent group
 - The control group only had a 0.25% error rate.

Criticism: It lacks ecological validity because in the real world minority influence is only used in extremely important situations and this isn't.

(c) A lot of procedures used by social psychologists are said to be unethical but it can be argued that important findings would not have been found if these procedures wouldn't have taken place. Milgram's study used deception right from the start when the advert said it was a learning and punishment experiment. Deception was used throughout the experiment. The participants were given orders to administer an electric shock to another man (even though it wasn't real, they thought it was). It has been said it was unethical because the participants were obviously stressed and didn't want to carry on. However Milgram argued that without deceiving them he would never have found these results. Milgram made it more ethical by debriefing them thoroughly afterwards. He also gave them the right to withdraw. Most participants afterwards said they were glad they took part in this study because they helped find some important findings and found out a little about themselves. So I believe that Milgram's procedures, even though unethical in places, can be justified.

Asch's experiment with the line study was unethical because participants came out humiliated. Asch tried to overcome this by debriefing them afterwards and saying their results were perfectly normal.

Zimbardo's experiment was unethical as he didn't give them protection from harm. I think this experiment was unethical because the findings did not outweigh how unethical the experiment was.

The procedures of studies are only ethical if the value of the findings outweigh the distress caused to the participants.

(see Appendix – Responses, page 109)

Candidate C

(a) It is believed that socialization is a key factor in why people obey. For a society to run smoothly people must obey social norms and rules, therefore people are socialized into acting certain ways and obeying authority. The penalty for disobeying authority can often mean being rejected by society or facing imprisonment.

Another psychological process in obeying is the autonomous and Agentic states. The former refers to an individual making their own decisions and acting out of personal direction. The Agentic state refers to acting as an agent of another and following orders, thus removing personal responsibility.

(b) Moscovici (1979) performed a study where subjects were placed among confederates and shown colour slides. They had to say what colour the slide was. In a consistent minority condition, confederates would call out the wrong colour. In these trials, 10% of subjects conformed to the minority decision. Moscovici concluded that this was due to 3 things: a) subjects had an error in perception, b) subjects thought they were wrong – error in judgment or c) although subjects had known they were right, they had suffered anxiety about going against the minority decision.

Although the study showed the influence of minority in certain circumstances, it was criticized for its lack of ecological validity as conformity in real life rarely occurs in a similar situation to this.

(c) In 1963 Milgram carried out a study looking at obedience to authority. He told participants that he was conducting a study on learning. The study entailed delivering (false) electric shocks to a confederate when he answered a question incorrectly. By the end of the study 62.5% of subjects had delivered shocks up to the maximum 400 volts, enough to kill a man. Every subject delivered shocks up to 350 volts. These findings held important implications about the willingness of ordinary people to obey and many people, including psychologists, questioned whether Milgram's procedure had been ethical. During the study the stooge would occasionally call out to stop the shocks, to which Milgram would calmly ask participants to continue. Many subjects showed extreme distress and anxiety over, supposedly, harming the stooge, however, many continued delivering the shocks. Due to the nature of the responses, Milgram had his membership to the APA suspended in 1964. In defence of himself he argued that participants could have stopped their intense distress at any time by refusing to carry on. At no point did he force a subject to continue against their free will.

Although Milgram did deceive participants on the real aim of the study, and thus failed to get fully informed consent, it is possible to view the procedures of being similar to that of a situation whereby unpleasant orders must be obeyed, for example in the army. The nature of social psychological research means an element of deception must be retained to ensure the validity of the study.

Zimbardo in 1973 attempted to overcome many of the criticisms Milgram had faced by obtaining consent from participants and de-briefing them on the aim of the study. In Zimbardo's study a group of men took on the roles of either guard or prisoner in the prison simulation. The study, intended to last 2 weeks, was stopped after 6 days due to the way guards had adopted their roles. On entering the 'prison', prisoners had been showered, de-clothed and given a number rather than a name. This allowed for guards to remain anonymous and de-individualized the prisoners, making it easier to treat them brutally. Again this study was heavily criticized over ethics, as many prisoners had suffered severe depression and anxiety, however it provided important information about the dangers of adopting new roles in new social situations and conformity.

(see Appendix – Responses, page 110)

Although it seems that 'some of the procedures used by social psychologists are ethically questionable', it is important to weigh the information gained against the ethical costs. Both Milgram and Zimbardo's studies revealed important information about the nature of obedience and conformity, and participants in both studies said they did not regret taking part. To help aid social psychological research the BPS published the book of ethical guidelines in an attempt to overcome these issues.

Unit 3: Question 3

The teacher in a small secondary school wanted to find out whether there was any truth in her idea that students who used a computer regularly for their homework achieved higher exam grades than those who did not.

She decided to interview a sample of 30 students taken from across the school. She tape-recorded all the interviews. She later obtained their end of year exam grades from their reports.

- (a) (i) Name **two** different methods that the teacher might have used to select her sample. (2 marks)
- (ii) Explain how she would have carried out one of the methods of selection named in part (i). (2 marks)
- (b) (i) Outline **one** advantage of using interviews in psychological research. (2 marks)
- (ii) Outline **one** weakness of using interviews in psychological research. (2 marks)
- (c) Outline **one** way in which the teacher could check the reliability of the data concerning computer use that she collected from the interviews with the students. (2 marks)
- (d) What is meant by the term validity in the context of research? (2 marks)
- (e) Give **one** factor that could affect the validity of the interviews with the students. (2 marks)
- (f) Identify **one** ethical issue that the teacher might have considered and explain how she might have dealt with it. (1 mark + 2 marks)
- (g) (i) Identify **one** appropriate measure of central tendency for the time students spent on the computer each week and explain how you would calculate it. (2 marks)
- (ii) Outline **one** disadvantage of the measure of central tendency you have identified in (i). (2 marks)
- (h) The teacher decided to conduct an experiment to see whether giving students more time using computers would improve their grades.
- (i) Suggest a non-directional hypothesis for this experiment. (2 marks)
- (ii) Identify an appropriate design. (1 mark)
- (iii) Using the design identified in (i) outline the procedures that could be used for this experiment. (6 marks)

(see Appendix – Mark Scheme, page 112)

Candidate D

- (a) (i) Random sampling and systematic sampling.
 - (ii) Systematic sampling is like random sampling but you pick every 10th name out of register.
- (b) (i) Interviews can obtain more in depth information. This can give a better insight to what is being studied.
 - (ii) Interview bias is one weakness. They may misinterpret the answer to what they want to hear.
- (c) Conduct a questionnaire on those students. This could involve questions on computer use.
- (d) Validity means that it is experimentally and ecologically valid. The research is true.
- (e) Students may be affected by demand characteristics in this study, they may be invited to what to say in the way questions are asked.
- (f) Informed consent. Teacher should inform each participant of the purpose, what is required and their right to withdraw from the study or their right to withhold data.
- (g) (i) Mean. This is calculated by adding up all the scores and dividing by the number of participants.
 - (ii) This measure of central tendency does not account for even numbers of scores.
- (h) (i) Using the computer regularly for homework will affect exam grades.
 - (ii) Matched participants design.
 - (iii) Students should be of the same age. For example those taking GCSE exams. The ages should be 16. A list should be compiled of 16 year olds taking their GCSEs then systematically picking out 30 names from that list that use a computer and 30 names from that list. This can be done by selecting every 10th name from the list. Each then should be interviewed as planned. When results are obtained comparison should be made, for example did those using a computer regularly get high grades. This can be done by drawing out a table of 2 columns – use computer regularly and do not use computer regularly, then note down each students' grade under relevant heading e.g. if they used a computer regularly put their grade under that heading.

(see Appendix – Responses, page 119)

Candidate E

- (a) (i) Two sampling methods the teacher could have used are random sampling or opportunity sampling.
 - (ii) Random sampling. Put all the names of the students in the school in a hat. Draw out the first 30 names of students and use these students in the exam.
- (b) (i) One advantage of interviews is that the same questions can be used for all the participants. The answers can therefore be compared easily. The experimenter can also tell things about the person as they can observe their body language.
 - (ii) A weakness of interviews is demand characteristics. The person being interviewed may be influenced by things in the room or by the experimenter. For example a participant could give an answer that they believe the experimenter wants to hear from picking up on the behaviour of the experimenter. This may therefore not be truthful or represent accurate results.

- (c) The teacher could carry out another experiment using different randomly selected pupils from the school to see if the same results can be obtained from different pupils. This may also ensure that the previous sample was not biased and that she obtains a representative sample of data which is reliable.
- (d) Validity can be experimental or external. Experimental validity would mean the teacher measuring what she said she was measuring. External validity means could the teachers results be applied to real life. In this case the teacher used a real life situation so it therefore could be said to be valid.
- (e) The interviews with the students may be valid if the questions asked do not reflect the results which are needed to determine whether amount of time on a computer affects exam results. Experimenter bias may also effect validity as the experimenter may treat some students differently according to preference. This may have caused the teacher to obtain varied results but not due to differences, due to bias.
- (f) Informed consent. The teacher could deal with this by obtaining prior informed consent from the parents of the students and also ensuring that the parents knew the procedures and aims of the experiment.
- (g) (i) Calculate the mean time students spent on the computer each week. Calculate this by adding the numbers spent per day and dividing this number by 7 to find the mean number of hours for the whole week.
- (ii) One disadvantage of this method is that if there are any extreme numbers such as 1 hour on a Monday and 18 hours on Thursday it will disrupt the mean and not give an accurate or representative average.
- (h) (i) The time students spend on computers will affect their exam grades.
- (ii) Independent groups design.
- (iii) Obtain a random sample of students by drawing 30 student names out of a hat with all the students in. One group of students (15 students) should use the computer for three hours a day. The exam grades of these students should then be recorded. The other group of 15 should use the computer for only 1 hour per day. The exam results of these students should then be recorded. Both groups of students should be allowed to use the same types of computer. The period of time in which the groups of students can use the computer daily should also be the same, for example 1 month.

(see Appendix – Responses, page 119)

Candidate F

- (a) (i) Two different methods that the teacher might have used to select her sample is opportunity sampling and stratified sampling.
- (ii) Opportunity sampling would mean she approached anyone who appeared suitable for her so only the students in the school.
- (b) (i) Interviews mean that as soon as you receive an answer from the participant you can read it. Take for example a questionnaire, these take much time to organize and give out and you may not get them back.
- (ii) Interviews are a long process and will mean the teacher fitting everyone in (each student) to times that are suitable for them.

- (c) The teacher would find it particularly hard to check reliability of computer usage that the students stated. Although questions could be asked 'What subject did you use the computer for', 'What piece of homework'. This could mean she could check with teachers of this subject.
- (d) Validity means to the extent the research collected is (valid) useable, it is not biased in any way or unreliable.
- (e) The sample of students taken. A sample of 30 students, may be relatively small, if she was wanting to gain an overview of the usage of computers and the exam grades achieved at the end of the year, she was better off asking about half of the students. A sample that is too small would encounter reliability questions.
- (f) One ethical issue that the teacher may have considered is the confidence and stating the aims and objectives at the beginning of the research. She will have dealt with this by relating to students what the research was about and the objectives its trying to gain. Leaving students to decide whether they want to take part. And there is the confidentiality criteria, that this will be kept under wraps. The teacher should state that the student can withdraw from the experiment at any time.
- (g) (i) To take an appropriate measure of central tendency, the average time the students spent on the computer each week can be taken. This will be taken by adding up this time and dividing it by 30 for each participant, and then this will be used in relation to their exam grades achieved, which will be compared and a contrast will be made.
- (ii) One disadvantage would be that a large enough sample may not have been taken in relation to the number of students in the school. So a clear average cannot be obtained.
- (h) (i) 'Students using computers more may improve their exam grades.'
- (ii) Repeated measures design.
- (iii) This repeated measures design will be used to test out the hypothesis during two tests. The first test will be conducted before the students are given more time on the computers. The interview will be given to the sample of 30 students to see if those students who used the computer regularly for their homework achieved higher exam grades. The exam grade would be obtained at the end of year and a comparison and judgment can be made. The second test will be carried out the following year, where exactly the same students will be given exactly the same time, but more of it during the year to use the computers. Again at the end of the year exam grades can be checked and recorded and a conclusion can be made. This experimental design will state the correct direction of the hypothesis. Therefore the experiment will be carried out over 2 years.

(see Appendix – Responses, page 119)

Delivery of the Course

Essential Considerations

- **The whole AS specification is compulsory**
- **Questions are derived from the specification**

If it is on the specification it could come up in the exam.

For example, questions may be asked on the structure and nature of memory, because this phrase is in the specification. Questions may also be asked about the multi-store model of memory because this is given in the specification but questions will not specifically be asked about working memory since this is given as an example. Questions would be asked about 'alternatives to the multi-store model' and then candidates may select whichever model they prefer. This might be the working memory model or levels of processing, or any other appropriate model.

- **Focus on skills as well as content, AO1, AO2 and AO3 are skills**
Students need to develop and practise these skills rather than just learning content. Often teachers cover more content than necessary and leave too little time for practising skills.

Research Methods

The following are some ideas as to how it might be possible to incorporate research methods alongside the other modules. It is possible to cover almost all the research methods at the same time as delivering the rest of the specification. The trick is to know which areas on the specification can be used to teach the various methods.

Here is an attempt to map research methods onto the specification. This is not intended to be comprehensive but to give some ideas about how it could be done. Many of the concepts would be repeatedly examined (e.g. aims, design, validity, analysis of data).

Cognitive Psychology: This is possibly the best place to start because there are so many experiments that can quickly and easily be carried out in the classroom. All the design concepts relating to experiments can be covered (research aims, types of hypothesis, types of variables, operationalisation of variables, experimental design, sampling techniques, experimental control).

Experiments generate data to analyse (measures of central tendency, standard deviation and of course graphs). Students seem to understand research methods if they can actually *do* something that generates their own data (since this is not coursework, students can pool class data).

- Peterson & Peterson trigrams: repeated measures design
- Tulving, cue dependent memory: independent groups design
- Primacy/ recency – drawing the graph illustrates this very effectively
- Levels of processing; randomisation of orienting task shows how to avoid order effects

There are many other examples but this would do to start with and all these experiments would allow the discussion of elements of design; experimenter bias, demand characteristics etc.

Developmental Psychology: There are opportunities here to discuss natural experiments since deprivation/privation and day care are topics where it is not possible to manipulate variables. The study by Hodges and Tizard is an obvious example.

Naturalistic observations may also be discussed in relation to studies of children such as Robertson & Robertson, or Lorenz's observations of goslings (was this a field experiment?). Ainsworth's Strange Situation is an example of a controlled observation whereas her earlier research in Uganda and America were naturalistic observations of young children in their own homes. Reliability can be introduced in relation to inter-observer reliability.

Note that students should not conduct research themselves in areas of psychology which are sensitive. Studying children under the age of 16 is a sensitive area.

Physiological Psychology: The studies by Friedman & Rosenman and Holmes & Rahe provide examples of questionnaires. Data from questionnaires can provide opportunities for correlational analysis (e.g. stress and health) and use of correlation coefficients and scattergraphs. Reliability and validity of questionnaires should be discussed.

Individual Differences: Accounts of anorexia nervosa and bulimia nervosa may be used for qualitative analysis. Students may either have a list of clinical characteristics and see to what extent these occur in case histories, or they might read case histories and produce their own list of clinical characteristics.

Interviewing could also be used to produce qualitative data, for example interviewing people about how they would define abnormality or about attitudes to abnormality (but never ask about experiences of abnormality and any other sensitive and private topic). This might be a good place to try a pilot study. Resulting data can be analysed in qualitative and quantitative ways. Reliability and validity of the interview technique should be discussed.

Social Psychology: Ethical issues (and how to deal with them) are a part of this module, therefore the obvious time to cover ethical issues in different kinds of psychological research. Validity is also covered in this module.

Experimental methods can be looked at by conducting role plays of the studies covered in conformity and/or obedience (Asch/Milgram: lab experiments, Hofling: field experiment – you might debate to what extent these are experiments. What are the independent variables?).

Social psychology can provide a good context for discussing the relationship between participants and researchers (demand characteristics and investigator effects).

Overview: In order to keep a check on what you have covered, it may help for students to compile their own 'research methods glossary' to record the definitions of key terms (see page 11) as well as other useful terms listed below. They should also note, where appropriate, the advantages and weaknesses of any concepts (e.g. lab experiments, non-directional hypothesis, the use of the mean, median and mode) and any other necessary details.

Revision: It is also possible to use research methods as a form of revision. Students are given a term e.g. ‘Experimenter bias’ the students have to define it and then find a study that illustrates it. For example, Bowlby carried out the interviews himself and made the diagnosis of affectionless psychopath himself – his own expectations might have biased his findings. They need to understand what the term means and then need to be able to apply their knowledge in order to find an example to illustrate the term.

Other Useful Terms

These are terms which are not included in the specification (and therefore questions will not be set asking about them). However, you are likely to include these when studying research methods.	
Confederate	Order effects
Confounding variable	Ordinal data
Counterbalancing	Participant variables
Experimental and control conditions	Placebo conditions
Experimental and control group	Random allocation
Extraneous variable	Response set
Interval data	Single and double blind
Inter-observer reliability	Social desirability bias
Nominal data	Standardised instructions
Observer bias	Standardised procedures
Open and closed questions	Time, point, event sampling
Opportunity sample	

Improving Candidate Performance

Where Marks are Typically 'Lost' in AS Questions

1. Not reading the exam questions accurately

For example, in a question such as 'Outline and evaluate one psychological method of stress management. (18 marks)', candidates do not notice that *psychological* rather than *physiological* methods of stress management are required. One way to deal with this is to recommend that candidates underline all key words in the question in order to focus on the specific requirements.

2. Candidates do not make an effective choice of questions

Candidates have to choose one question in each section of the unit exam. They should read all parts of all questions first and make a note of the parts they think they can do well on. This may help them choose between question 1 and 2, and question 3 and 4. Some teachers recommend paying particular attention to part (c) as this may potentially earn the most marks though excellent answers on parts (a) and (b) will earn 12 marks.

3. Candidates do not focus on the demands of the question

It is imperative that candidates think about and plan what they are going to write rather than presenting 'everything I know about this topic'. The idea of 'one minute per mark' includes thinking as well as writing time. In a question worth 6 marks a candidate might think for 2 minutes and write for 4 minutes.

Improving Performance on AO1 Questions

Terms and Concepts

Many students use examples to elaborate their answers. However examples are not necessarily sufficient. For example, if the question was 'Describe one explanation of why people yield to majority influence' then writing 'People conform because of normative social influence for example wearing certain clothes' or '... for example, in Asch's study' would not receive a full 3 marks. For full marks, the example must be elaborated and used to illustrate the term/concept.

Students should be cautious about using 'everyday' (anecdotal) examples. Ideally they should be examples such as saying 'as in obeying the experimenter in Milgram's experiment' rather than 'obeying your dad'.

Theories

Some students score higher marks when asked to describe a study than when required to describe a theory. They possibly cope better with concrete rather than abstract information – so make theories more concrete. There are various ways to do this. For example, encourage students to identify key points for each theory so that they can focus on each point in turn and thus present a more detailed description. Alternatively or additionally, students might construct models of certain theories or even role-play them.

APFCC Questions: Aims

The scientific process involves generating aims/hypotheses from previous research (theory or study). All studies have aims: a statement of what the researcher(s) intend to find out, which may include the hypothesis (a statement of expectations), and/or may include identification of a theory (or study) that the study intends to support or challenge.

Encourage your students to ask themselves a series of questions to help them generate the aims, such as 'What is the hypothesis that is being tested?', 'What study or theory is the researcher aiming to support or challenge?', 'What were the conclusions of the study?'. The answers to such questions may produce material related to the aims. Note that aims and hypotheses are not the same, but a hypothesis could be incorporated into the aims.

APFCC Questions: Findings and Conclusions

Findings are facts, conclusions are arguable. For example, Milgram found that 65% of the participants gave the maximum shock (can't be argued about). He concluded that people are highly obedient to authority (This can be argued because it is simply a logical inference he made from his findings). Another example can be drawn from Baddeley's study of encoding. He found that acoustic similarity caused greatest confusion in STM recall and semantic similarity cause greatest confusion in LTM recall. This led to the conclusion that information is acoustically coded in STM and semantically coded in LTM.

If a candidate starts a sentence 'The findings show that...' or 'This suggests that ...' it should force them to make a general statement about behaviour rather than a specific statement about the research.

Use of Technical Terms

This is important for QoWC and also can act as an aide memoire. Students should not be afraid to use technical terms.

Names and Dates

Names are useful in identifying particular pieces of research, but it's far more useful to know about ideas, concepts, research findings, technical terms etc. Candidates are not penalised for omitting researchers' names but should be encouraged to include them.

As for dates, a general awareness of when research took place is all that is needed (e.g. looks a bit odd to talk about Freud as if he is still alive and an awareness that Milgram's research is getting on for 40 years old might be useful).

Getting Candidates to Elaborate and Contextualise Criticisms

A major problem with criticisms is that candidates identify the criticism but offer no further elaboration, chiefly they do not explain why the criticism was a problem (or strength) in this particular study.

An effective way to encourage students to elaborate their answers is to use the three point rule (for 3 mark questions): identify it, explain/justify this statement with reference to the particular study or theory, and finally to explain why this *is* a criticism. For example, a candidate might state that one problem in a particular study is that the study lacks ecological validity (identifies it), the candidate should go on to explain/justify this statement. For example, saying that the study involved a simple task that is not representative of real life (and describing this task). Finally, it needs to be made clear why this is a criticism, in this case because it means one is not justified in generalising the findings to real life settings.

Use of Bullet Points

It is acceptable for students to use bullet points but they will lose marks if these are single word points, communicating little understanding and only some knowledge. Bullet points must be explained.

Use of Diagrams

Diagrams also tend to demonstrate knowledge but not understanding. A diagram of the multi-store model is a 'basic' response to a question asking for a description of this model. Diagrams are a useful part of an answer but must be supplemented by explanations.

Improving Performance on Part (c) Questions

The intention behind the 'part (c) question' is that it should require discussion and thoughtfulness. It is intended as a discriminator.

Balance and Organisation

Candidates frequently present answers which have too much AO1 and too little AO2, or vice versa. The fact that there are always 6 AO1 marks and 12 AO2 marks should be reflected in their answers. There are various plans that candidates might use in relation to different question styles to ensure that they get this balance right and present an organised answer. Candidates should be prepared to use different styles as appropriate.

Starting and Finishing an Essay

In some essays it helps to begin with a conclusion and then present evidence to support this conclusion. Candidates may also present evidence to challenge the conclusion. There is no requirement, for full marks, to present a balanced answer, nor is there a requirement for a summary at the end (which is often little more than a repetition of points already made and therefore would receive no further credit).

Equally, there is no need for a formal introduction unless it contributes in some way to the AO1 or AO2 content of the essay. There are no specific marks awarded for an introduction. Candidates may, however, want to write out some form of plan, not to gain credit, but to help them organise their answer.

Candidates may also increase their *focus* on the question by beginning every paragraph with a restatement of the question, for example 'The procedures of another study of social influence were ...', 'A second criticism of this explanation is ...'.

Producing Good AO2: Evaluation and Commentary

'Evaluation' includes both positive and negative criticisms. The 'value' of any knowledge can also be established by examining consequences, implications, alternatives, and so on.

'Commentary' refers to additional explanations or critical notes that can be added to enhance the meaning of an explanation. The inclusion of 'commentary' is an attempt to widen the scope of AO2.

- Encourage students to have their own opinion – but this must be informed by psychological knowledge. Opinions on their own attract no credit but they do encourage the student to process the material more deeply.
- Give students an AO2 vocabulary.

Having a set of 'key phrases' encourages **AO2** responses:

This suggests that...

This suggests that children who have experienced early deprivation should have difficulty in relationships when they are older.

However...

However a study by Thomas found that some lower class workers are not more likely to develop coronary heart disease.

Therefore...

Therefore we might conclude that minority influence has a greater effect on attitude change.

On the other hand...

On the other hand the working memory model proposed that immediate memory consists of several different stores.

In contrast...

In contrast with the psychodynamic model, the cognitive model proposes that we should focus on the here and now.

One advantage of this view is...

One advantage of this view is that it provides a means of treating behaviour problems.

The study was flawed because...

The study was flawed because the participants were all males and American, and so we should not generalise the findings to the wider population.

Support is shown by...

Support is shown by a range of other studies such as one by Kiecolt-Glaser which found that wounds healed more slowly in stressed individuals.

A useful application of this....

A useful application of this theory is in teacher training because it shows teachers how they may best influence their pupils.

Not everyone reacts in the same way, for example...

Not everyone reacts in the same way, for example one study found that women were more conformist than men (Eagly and Carli).

There may be cultural variations...

There may be cultural variations in this behaviour, therefore many of these explanations may not be applicable or relevant to non-Western cultures.

Remember good commentary should also be elaborated. Encourage students to answer further questions about their comment:

- Is the comment appropriate to the material being 'evaluated'? Is it relevant? Don't just say that the study lacked ecological validity, it might not have lacked ecological validity.
- Is it justified? How do I know that the study lacked ecological validity?
- Is it elaborated? So why exactly is ecological validity a problem?

Improving Performance on Research Methods

- If a question includes the phrase ‘in this study’ then candidates will not gain maximum marks unless their answer has been set in the context of the study. For example, if asked ‘Describe **one** advantage of an interview in this study. (3 marks)’ then a candidate who writes ‘This allows the researcher to collect rich data because he can ask participants to explain their answer’ would not receive full marks.
- When asked to describe ‘**one** advantage’ or ‘**one** ethical issue’ only provide one answer because only the first will be marked.
- Candidates should use the allocation of marks to guide them in the amount of detail required. Frequently candidates fail to give enough material to gain a full 6 marks on questions given this allocation.
- Debriefing is not credited as an ethical issue. This is a means of resolving ethical issues.

Resources

Textbooks Written Specifically for AQA A Psychology AS

Cardwell, M. C., Clark, E. & Meldrum, C. (2003) *Psychology for AS level*, (3rd Edition). London: Collins. ISBN 0-00-715363-5. [Also published in *Psychology for A Level*. (2000) (2nd Edition). London: Collins. ISBN 0-003-22474-0. AS in this is not the updated version]

Cardwell, M. & Flanagan, C. (2003) *Psychology AS: The Complete Companion*. Cheltenham: Nelson Thornes. ISBN 0-748-76747-9

Cox, E. (2000) *Psychology for AS Level*. (2000) Oxford: Oxford University Press. ISBN 0-19-832824-9. [also published in *Psychology for A Level*. (2001) Oxford: Oxford University Press. ISBN 0-19-832838-9]

Eysenck, M. W. (2003) *Psychology for AS Level*. (2nd Edition). Hove, Sussex: Psychology Press. ISBN 1-84169-364-2

Gross, R., McIlveen, R., Coolican, H., Clamp, A. & Russell, J. (2000) *Psychology: a new introduction for AS Level*. London: Hodder & Stoughton. ISBN 0-340-77690-0. [Also published in *Psychology: A New Introduction*. (2nd Edition) (2000) London: Hodder & Stoughton. ISBN 0-340-77689-7]

Gross, R. & Rolls, G. (2003) *Essential AS Psychology for AQA (A)*. London: Hodder & Stoughton. ISBN 0-340-84640-2

Moxon, D., Brewer, K. & Emmerson, P. (2003) *Psychology AS for AQA A: Student book and CD Rom*. Heineman. ISBN 0-435-80673-4

Rice, D. & Haralambos, M. (Ed) *Psychology in focus: AS Level*. (2000) Ormskirk, Lancs: Causeway Press. ISBN 1-902796-04-7 [Also published in *Psychology in focus: A Level*. (2001) Ormskirk, Lancs: Causeway Press. ISBN 1-902796-05-5]

Student Dictionaries

Cardwell, M.C. (2003) *The Complete A-Z Psychology Handbook*. (3rd Edition) London: Hodder & Stoughton. ISBN 0-340-87269-1

Flanagan, C. (2000) *AS/A Level Psychology: Essential word dictionary*. Deddington, Oxon: Philip Allan Updates. ISBN 0-860-03371-6

Hayes, N. & Stratton, P. (2003) *A student's dictionary of Psychology*. (4th Edition). London: Hodder & Stoughton. ISBN 0-340-87303-5.

Russell, J. & Jarvis, M. (2002) *Key ideas in Psychology*. Cheltenham: Nelson Thornes. ISBN 0748765646.

Reber, A.S. & Reber, E. (2001) *The Penguin Dictionary of Psychology*. (3rd Edition). London: Penguin. ISBN 0-14-051451-1

Statt, D. (2003) *A student's dictionary of psychology*. Hove, Sussex: Psychology Press. ISBN 1-84169-342

Teacher Packs

Charles, C. (2002) *Psychology for AS level workbook*. (2nd Edition). Hove, Sussex: Psychology Press. ISBN 1-84169-332-4

Hartshill Press publish a range of resource packs for teachers of AQA A psychology. The packs are regularly updated, photocopiable and all content is provided on disk.

Resource pack for AS level Psychology (AQA A) ISBN 1-900-84316-1

Meldrum, C. (2003) *Psychology for AS/A2: Resource file*. ISBN 0-007-17041-6. Collins Educational.

Philip Allan Updates publish resource packs for AS level psychology which are fully photocopiable and contain ideas for activities and lessons, information about key studies, and worksheets.

Cognitive and Developmental Psychology. ISBN 0-860-03269-8

Physiology Psychology and Individual Differences. ISBN 0-860-03270-1

Social Psychology and Research Methods. Forthcoming

Psychology Press. *Resources for teaching AS/A2 Psychology* CD-ROM including the *Essential AS Teaching Package* with PowerPoint lectures, AS workbook in pdf format and weekly teaching plan.

Rolls, G., Banks, A., Munroe, J. & Gross, R. (2001) *Psychology: a new introduction for AS level: Teacher's Book*. London: Hodder & Stoughton. ISBN 0-340-80386-X

AS Revision Guides and Exam Questions

Brody, R. & Dwyer, D. (2002) *Revise Psychology for AS*. Hove, Sussex: Psychology Press. ISBN 1-84169-325

Cardwell, M. & Flanagan, C. (2004) *Psychology AS: The Exam Companion*. Cheltenham: Nelson Thornes. ISBN 0-748-77420-3

Cardwell, M., Meldrum, C. & Willson, J. (2002) *Do brilliantly at AS Psychology*. London: Collins. ISBN 0-007-14331-1

Cardwell, M. & Wadeley, A. (2003) *Revision Express A level study guide*. London: Longman. ISBN 0-582-78419-0

Flanagan, C. (2000) *Revise AS Psychology*. London: Letts Educational. ISBN 1-840-85334-4

Flanagan, C. (2003) *Psychology AS: The mini-companion*. Cheltenham: Nelson Thornes.

Hill, G. (2001) *AS Psychology through diagrams*. Oxford: Oxford University Press.

Humphreys, P. (editor) (2002) *AS/A AQA (A): Exam revision notes*. Deddington, Oxon.: Philip Allan Updates. ISBN 0-860-03431-3

McQueen, H. (2001) *AS Fast-Track*. London: Pearson. ISBN 0-582-43239-1

Meldrum, C. (2002) *Instant revision: AS Psychology*. London: Collins. ISBN 0-007-12607-7

Philip Allan Unit guides (2002) *AS Psychology (2nd Edition)*:

Unit 1 (C. Flanagan) ISBN 0-86003-890-4,

Unit 2 (M. Cardwell) ISBN 0-86003-883-1,

Unit 3 (A. Wadeley & M. Cardwell) ISBN 0-86003-892-0.

Sammons, A. & Putwain, D. (2001) *AS level in a week: Psychology*. Letts Educational. ISBN 1-840-85369-7

AS Books for Each Module

Cognitive Psychology: Human Memory

Baddeley, A. (1999) *Essentials of Human Memory*. Hove: Psychology. Press. ISBN 0-86377-545-4

Cohen, G. (1996) *Memory in the Real World*. (2nd Edition) Hove: Psychology Press. ISBN 0-86377-729-5

Developmental Psychology: Attachment

Bee, H. (1998) *The Growing Child*. (2nd Edition) UK: Longman. ISBN 0-321-01346-8

Brislin, R. (1993) *Understanding culture's influence on behaviour*. Fort Worth: Harcourt. ISBN 0-03-075897-1

Gross, R. (2003) *Themes, Issues and Debates in Psychology*. (2nd Edition) London: Hodder & Stoughton. ISBN 0-340-85784-6

Schaffer, H. R. (1996) *Social Development*. Oxford: Blackwell. ISBN 0-631-19412-6

Smith, P. K., Cowie, H. & Blades (1998) *Understanding Children's Development*. (3rd Edition) Oxford: Blackwell ISBN 0-631-19412-6

Sroufe, L.A. et al (1996) *Child development: Its nature and course*. New York: McGraw Hill. ISBN 0-07-553785-0

Physiological Psychology: Stress

Jones, F. & Bright, J. (2001) *Stress*. Prentice Hall. ISBN 0-130-41189-2

Pitts, M. & Phillips, K. (Eds) (1998) *The Psychology of Health*. (2nd Edition) London: Routledge. ISBN 0-415-15024-8

Weiten, W. (1999) *Psychology applied to modern life*. Wadsworth. ISBN 0-534-35553-6

Individual Differences: Abnormality

Comer, R. J. (2002) *Fundamentals of abnormal psychology*. (4th Edition) New York: Worth. ISBN 0-716-75119-4

Eysenck, M. W. (1994) *Individual Differences: Normal and abnormal*. Psychology Press. ISBN 0-86377-257-9

Gross, R. (1995) *Themes, Issues and debates in Psychology*. London: Hodder & Stoughton. ISBN 0-340-62031-5

Lawrence, M. (1995) *The Anorexic Experience*. (3rd Edition). London: The Women's Press. ISBN 0-7043-4441-6

Social Psychology: Social Influence

Baron, R. A. & Byrne, D. (2000) *Social Psychology: Understanding Human Interaction*. (9th Edition) Boston: Allyn and Bacon. ISBN 0-205-31131-8

Hewstone, M. et al (Eds) (2001) *Introduction to social psychology*. (3rd Edition). Oxford: Blackwell. ISBN 0-631-20437-7

Pennington, D. C., Gillen, K. & Hill, P. (1999) *Social Psychology*. London: Arnold. ISBN 0-340-54846-0

Research Methods

Coolican, H. (1996) *Introduction to Research Methods and Statistics in Psychology*. (2nd Edition). London: Hodder & Stoughton. ISBN 0-340-67937-9

Dyer, C. (1995) *Beginning Research in Psychology: A Practical Guide to Research Methods and Statistics*. Oxford: Blackwell. ISBN 0-631-18929-7

Searle, A. (1999) *Introducing Research and Data in Psychology*. London: Routledge. ISBN 0-415-18875-X

Psychology Review Philip Allan Updates, Market Place, Deddington, Oxfordshire. OX15 0SE.

A quarterly journal which is highly suitable for AS and A Level psychology students and which contains articles and features on topics from the specification as well as columns on coursework, examination issues, etc. Clearly presented information and highly useable for students at this level.

Richmond-upon-Thames College supply copies of broadcasts they have recorded to schools & colleges who are members of their library.

([Hyper-link to Richmond-upon-Thames College](#))

A2 Examination (6181)

Specification at a glance

A2 Examination 6181	
Unit 4 (PYA4)	
1½ hours	30% of A2 marks <i>(15% of the total A Level marks)</i>
3 essays: 1 essay chosen from 3 in each of: Social Psychology, Physiological Psychology, Cognitive Psychology, Development Psychology, Comparative Psychology (no more than two questions from each section)	
Unit 5 (PYA5)	
2 hours	40% of A2 marks <i>(20% of the total A Level marks)</i>
Individual Differences: 1 essay chosen from 3 Plus Perspectives: Issues & debates 1 essay chosen from 4 Perspective: Approaches: 1 structured question chosen from 2	
Unit 6 (PYA6)	
Coursework	30% of A2 marks <i>(15% of the total A Level marks)</i>
1 report of an investigation, 2000 words maximum, centre-assessed and AQA-moderated	

Jargon Buster

In order to make this document as useful as possible you will need to be clear on what each term used refers to:

- A **unit** is the term given to describe each exam, e.g. Unit 4.
- A **module** is the teaching content of each unit.
- Each module is separated into a number of **sections**. There are five sections in Unit 4: Social psychology, Physiological Psychology, Cognitive Psychology, Developmental Psychology and Comparative Psychology.
- Each section is subdivided into **subsections** e.g. Social Psychology is divided into three subsections: Social Cognition, Relationships and Pro- and anti-social behaviour.
- Each subsection is separated into three **divisions** e.g. Social cognition is divided into (a) Attribution of causality, (b) Social perception and (c) Prejudice and discrimination.

Minimum Requirements for Each Unit

- Unit 4**
 Candidates must study a minimum of **three** subsections in total, taken from **at least two** sections of the specification. For example you can study Brain and Behaviour (in Physiological Psychology) and Attention and pattern recognition plus Language and Thought (both from Cognitive Psychology). If your students studied **only** the three subsections from Cognitive Psychology, they would not be able to meet the exam rubric which states: Answer **three** questions in total. These must be taken from at least **two** different Sections. [Note: this does not mean that candidates should answer 6 questions in total but that the three questions they answer must be drawn from at least two different sections.]
- Unit 5**
Individual differences: candidates must study a minimum of **one** subsection from this part of the specification. (E.g. psychopathology).
Perspectives: Issues and debates: candidates must study a minimum of either **three** issues **or** **three** debates. [Four questions are set, two from the issues and 2 from the debates so this means that, if for example a candidate has studied 3 issues, then one of these must be on the exam.]
Perspectives: Approaches: candidates must study a minimum of **two** approaches in detail as they are required to use two approaches in the question.
- Unit 6**
 One project and associated project brief.

Examination Availability and Regulations

Availability

Each examination is available in both the January examination series and the summer examination series. Each examination is timetabled to take place on a different day.

Exam Timetable

The Unit 4 examination will always be timetabled first. However, there is no requirement for candidates to sit Unit 4 before Unit 5. Candidates may if preferred sit Unit 5 in the January examination series followed by Unit 4 in the Summer series. Although it is expected that most candidates are likely to wait until the end of their course to take Unit 5 the 'synoptic' unit.

If you are in any doubt with regards to the administration of the examinations you should in the first instance contact your examinations officer. If you require further clarification the subject department should be contacted.

Re-sits

With effect from 1 January 2004 the restrictions on re-sitting units are being removed. Students will, therefore, be able to re-take units more than once. When an entry is made for certification, the best attempt will count towards the final award. This change will apply to all students, including those who have already been entered for any units or full qualifications.

Further detailed information can be obtained from: www.jcgq.org.uk (*Hyper-link to website*)

Question styles

The Assessment Objectives

Candidates are assessed on two skills:

AO1 knowledge and understanding of psychological theories, terminology, concepts, studies and methods and communication of knowledge and understanding of psychology in a clear and effective manner. In addition, at A2, this includes knowledge and understanding of psychological principles, perspectives and applications of some of the core areas (from Cognitive, Social, Developmental, and Physiological Psychology and Individual Differences).

AO2 analysis and evaluation of psychological theories, concepts, studies and methods and communication of knowledge and understanding of psychology in a clear and effective manner. In addition, at A2, this includes analysis and evaluation of psychological principles, perspectives and applications in the selected core areas.

Quality of Written Communication (QoWC)

Candidates are assessed on quality of written communication in Unit 4 and Unit 5. Candidates will be assessed according to their ability to:

- Select and use a form and style of writing appropriate to purpose and complex subject matter;
- Organise relevant information clearly and coherently, using specialist vocabulary when appropriate;
- Ensure text is legible, and spelling, grammar and punctuation are accurate, so that meaning is clear.

In Unit 6 QoWC is incorporated into the assessment criteria for Report Style.

Specification Sampling

Unit 4: a guarantee of one question per subsection.

Unit 5: Section A Individual differences: one question per subsection i.e. three questions.

Section B Perspectives: Issues and debates: two questions from issues and two questions from debates i.e. four questions.

Section C Perspectives: Approaches: two questions, each with a short stimulus followed by a set of questions.

Question Formats

- **Mark Composition**

Unit 4: the total marks for each question will be 24 marks. This is always 12 AO1 marks and 12 AO2 marks.

Unit 5: the total marks for each question will be 30 marks. In Section A and Section B (Individual differences and Issues and debates) this is 15 AO1 marks and 15 AO2 marks. For Section C of the paper (Approaches) this is always 12 AO1 marks and 18 AO2 marks.

- **Mark Composition for Parted Questions**

- **Unit 4** A question which is 12 marks + 12 marks may be 12 AO1 marks and 12 AO2 marks or 6 AO1 marks and 6 AO2 marks for both parts of the question.

- A question which is 6 marks + 18 marks will be 6 AO1 marks in the first part of the question and 6 AO1 marks plus 12 AO2 marks in the second part of the question.

- A question which is 6 marks + 6 marks + 12 marks is likely to be 6 AO1 marks in the first two parts of the question and 12 AO2 marks in the final part.

- **Unit 5** A question which is 15 marks + 15 marks will be 15 AO1 marks in the first part and 15 AO2 marks in the second part.

- A question which is split into 5 marks + 25 marks is likely to be split into 5 AO1 marks in the first part and 10 AO1 marks plus 15 AO2 marks in the second part of the question.

- A question which is divided into 5 marks + 10 marks + 15 marks is likely to be 5 AO1 marks in the first part of the question, followed by 10 AO1 marks in the second part and finally 15 AO2 marks in the last part of the question.

- **Numbers**

Numbers are provided in questions to assist candidates in knowing the breadth of response required. Questions will ask for a specified number of theories, explanations or studies, wherever possible. For example ‘Outline and evaluate explanations of **two** different signalling systems used by non-human animals. (24 marks)’ or ‘Compare and contrast **two or more** explanations of **one** anxiety disorder’. (30 marks)

When **one or more** or **two or more** is used candidates may choose to focus on one/two (e.g. theory/theories) in depth, or an increasing number in less detail. The candidate should bear in mind the requirements of AO1 and AO2. A very superficial review of many (e.g. theories) might result in failure to demonstrate AO2.

- **Quotations in Questions**

On some occasions a question will include a quotation. Quotations only need to be addressed if the question specifically requires this. For example:

“There is a lot of opposition to the use of non-human animals in psychological research, but the truth is that animals are so similar to us genetically and are so convenient to use that we would be foolish not to carry out such investigations.”

Discuss the use of non-human animals in psychological research, with reference to the quotation above. *(30 marks)*

If there is no requirement to address the quotation, then the quotation is merely intended as guidance about what might be included in an answer. For example:

“There have been many instances of psychological research that have shown gender biases (such as alpha bias, beta bias and androcentrism). These biases may distort the value of such research.”

Discuss gender bias in psychology, with reference to issues such as those raised by the quotation above. *(30 marks)*

or

“It has usually been thought that perception occurs *passively* from inputs from the senses. It is now, however, fairly generally accepted that stored knowledge and assumptions *actively* affect even the simplest perceptions.” (Gregory, 1987)

Describe and evaluate **one** constructivist theory of visual perception (e.g. Gregory). *(24 marks)*

Where there is a requirement to address the quotation, candidates who do not engage will incur the following penalty:

For Unit 4: maximum mark of 8 out of 12 on AO2

For Unit 5: maximum mark of 9 out of 15 on AO2

Terms Used in A2 Examination Questions

The following glossary clarifies commonly used terms used in recent examinations and to be used in the future.

Each injunction or key command, is intended to prompt candidates to respond in such a way as to demonstrate the skills outlined in the assessment of the A2 Level specification.

AO1 Terms

Describe, outline, explain, define require the candidate to supply evidence of assessment objective 1 (AO1).

Note that in addition:

Outline involves a summary description only (more breadth than detail/depth).

Define requires the candidate to state what is meant by a particular term.

AO2 Terms

Evaluate, assess, analyse, to what extent require the candidate to supply evidence of assessment objective 2 (AO2). Analysis and evaluation should be informed and demonstrate an awareness of both strengths and limitations as far as possible.

AO1 and AO2 terms

Discuss, critically consider, compare and contrast require the candidate both to describe (AO1) and evaluate (AO2) by reference to different if not contrasting points of view. Questions may instruct the candidate to discuss with reference to particular criteria, for example, by the use of the phrase "...in terms of ...".

When **compare and contrast** is used in an examination question a candidate can either:

- demonstrate knowledge and understanding of the stipulated topic areas (AO1) and then consider similarities and differences between the stipulated topic areas (AO2).

or

- demonstrate knowledge and understanding of similarities and differences between the stipulated topic areas (AO1) and then evaluate these similarities and differences (AO2).

Other Terms

Evidence	Material from studies or theories that may be used in support or contradiction of an argument or theory.
Findings	The outcome or product of research.
Research	The process of gaining knowledge through the examination of data derived empirically or theoretically.
Study	An investigation providing evidence which may be empirical or non-empirical (such as meta-analysis).
Theory	A (usually) complex set of interrelated ideas/assumptions/principles intended to explain or account for certain observed phenomena.
Model	An explanation which is less complex/elaborate than a theory.
Applications	Actual or possible ways of using psychological knowledge in an applied/practical setting.

Assessment Issues

Marking Schemes

Marking schemes are available via the Publications Department ([Hyper-link to http://www.aqa.org.uk/public/index.html](http://www.aqa.org.uk/public/index.html)) and are published on the AQA website. ([Hyper-link to www.aqa.org.uk/gceasa/psyA-assess.html](http://www.aqa.org.uk/gceasa/psyA-assess.html).)

The marking scheme consists of:

- The **Marking Criteria** which is the **guide** as to what is required in the answer to the question. The intention is to indicate how candidates may answer the question and how examiners should deal with special cases, such as partial performance. The criteria are not intended to be a comprehensive review of the question area. They are written for examiners to use and not as teaching content guidance.
- The **Marking Allocation** indicates the way marks will be awarded. In each division of the marking allocation there is question-specific material to indicate how answers will be differentiated.

Partial Performance

In questions where plurality is required (e.g. ‘**two** studies’ or ‘**two** explanations’) partial performance penalties will be applied when only one study or explanation (etc.) is presented.

In Unit 4 this means a maximum of 8 marks AO1 and 8 marks AO2.

In Unit 5 this means a maximum of 9 marks AO1 and 9 marks AO2.

Positive Marking

On all questions in the exam, examiners use positive marking. This means that, if a candidate is asked to outline and evaluate **one** psychological theory of dreaming, and two theories are provided, the examiner will mark both theories and award marks for the better of the two.

Description in AO2

Candidates who only describe material in the **AO2** part of the question can achieve marks limited to Band 1. The following wording is used in the marking criteria:

Candidates who simply **describe** appropriate research studies/theories without using this material as part of a sustained critical commentary should receive a maximum mark at the top of Band 1 for the AO2 component, crediting the selection of appropriate material.

Sustained Critical Commentary

It is not sufficient for candidates to simply provide a linking sentence as a means of presenting descriptive material as **AO2**. For example ‘In contrast there is another theory’ and then proceed to *describe* the theory as a method of commentary.

Engaging with the Stimulus Material on the Approaches Question (Unit 5)

In this question the candidate is rewarded for demonstrating knowledge of how a particular approach would endeavour to explore the topic area referred to in the question. Answers which focus on particular studies or published accounts should receive credit only insofar as these illustrate an understanding and critical appreciation of the theoretical and methodological orientations of the general approach to the hypothetical example given in the question.

In all parts of the Approaches question candidates are required to engage with the stimulus material, as distinct from presenting pre-prepared material on Approaches. Some candidates may simply add a few appropriate words (such as 'body decoration'). This tactic is unlikely to raise a candidate's mark above Band 1 (Basic). On the other hand, some candidates may *shape* their responses in order to address issues in the stimulus material. Such responses could gain full marks depending on the degree of shaping for purpose. The extent to which candidates have used their knowledge to effectively answer the four parts of the question constitutes the merit of their response.

In parts (c) and (d) candidates may offer an investigative strategy which is clearly appropriate to one or both of the approaches they have given in (a) but generalises it in a context other than that given in the stimulus material. Such responses will gain credit insofar as they accurately portray methodology and assumptions of the chosen approach.

Criteria for Assessing AO1

The main criteria for assessing **AO1** are content, detail and accuracy, organisation and structure, and aiming for a balance between breadth and depth. On Unit 5 there is the additional criterion of synopticity which is assessed in relation to the breadth and depth (i.e. the extent to which the material covered through the essay reflects synopticity).

Full marks are awarded for an answer that is substantial in terms of content bearing in mind the time the candidate has to write their answer (15 minutes for the AO1 part of an answer on Unit 4 and 20 minutes for the AO1 part of an answer on Unit 5). The answer should also be accurate and well detailed, coherent and have evidence of both breadth *and* depth.

The mark allocations for Units 4 and 5 are divided into bands. Examiners select the band that best describes the AO1 content of an answer.

The actual mark is decided by using the 'magnet effect'. For example an essay might be best described as 'limited, generally accurate, reasonably detailed and constructed with increasing evidence of breadth and depth'. On Unit 4 this would be Band 2 top. The examiner decides whether to award a mark of 7 or 8 depending on whether more of the descriptors in the band below are appropriate or more of the descriptors in the band above are appropriate.

In cases where the descriptors don't fit the answer exactly, for example an answer might be limited but accurate, then the examiner selects the descriptor that **best** fits the answer.

Criteria for Assessing AO2

The main criteria for assessing **AO2** are quality of the evaluation, appropriateness of what has been selected and the extent to which this material has been coherently elaborated and used effectively. On Unit 5 there is the additional criterion of synopticity which is assessed in relation to the effectiveness of the commentary (i.e. the extent to which the synoptic material is effectively used).

Marks are determined for **AO2** in the same way as described above for **AO1**.

Summary of Marking Criteria for Unit 4

Mark allocations for AO1

Marks	Content	Detail and accuracy	Organisation & structure	Breadth and depth
12-11	Substantial	Accurate and well-detailed	Coherent	Substantial evidence of both and balance achieved
10-9	Slightly limited	Accurate & reasonably detailed	Coherent	Evidence of both but imbalanced
8-7	Limited	Generally accurate & reasonably detailed	Reasonably constructed	Increasing evidence of breadth and/or depth
6-5	Basic	Generally accurate, lacks detail	Reasonably constructed	Some evidence of breadth and/or depth
4-3	Rudimentary	Sometimes flawed	Sometimes focused	
2-0	Just discernible	Weak/muddled/inaccurate	Wholly/ mainly irrelevant	

Mark allocations for AO2

Marks	Evaluation is	Selection and elaboration	Use of material
12-11	Thorough	Appropriate selection and coherent elaboration	Highly effective
10-9	Slightly limited	Appropriate selection and elaboration	Effective
8-7	Limited	Reasonable elaboration	Reasonably effective
6-5	Basic	Some evidence of elaboration	Restricted
4-3	Superficial and rudimentary	No evidence of elaboration	Not effective
2-0	Muddled and incomplete	Wholly or mainly irrelevant	

Summary of Marking Criteria for Unit 5

Mark allocations for AO1 Sections A and B

Marks	Content	Detail and accuracy	Organisation & structure	Breadth/depth of content and synoptic possibilities
15-13	Substantial	Accurate & well-detailed	Coherent	Substantial evidence of both
12-10	Slightly limited	Accurate & reasonably detailed	Coherent	Evidence of both
9-7	Limited	Generally accurate & reasonably detailed	Reasonably constructed	Some evidence of both
6-4	Basic	Lacking detail	Sometimes focused	Little evidence
3-0	Just discernible	Weak/muddled/inaccurate	Wholly/ mainly irrelevant	Little or no evidence

Mark allocations for AO2 Sections A and B

Marks	Evaluation is	Selection and elaboration	Use of material
15-13	Thorough	Appropriate selection and coherent elaboration	Highly effective
12-10	Slightly limited	Appropriate selection and elaboration	Effective
9-7	Limited	Reasonable elaboration	Reasonably effective
6-4	Basic	Some evidence of elaboration	Restricted
3-0	Weak, muddled and incomplete	Wholly or mainly irrelevant	Not effective

Mark allocations for Section C**Part (a) For each approach**

	Content	Accuracy	Engagement
6-5	Reasonably thorough	Accurate	Coherent
4-3	Limited	Generally accurate	Reasonable
2-0	Basic	Sometimes flawed or inaccurate	Muddled, or no meaningful engagement

Part (b)

	Commentary	Use of material	Engagement
6-5	Reasonably thorough	Effective	Coherent
4-3	Limited	Reasonably effective	Reasonable
2-0	Basic	Restricted	Muddled, or no meaningful engagement

Part (c)

	Commentary	Plausibility	Engagement
6-5	Reasonably thorough	Appropriate	Coherent
4-3	Limited	Reasonably appropriate	Reasonable
2-0	Basic	Largely inappropriate	Muddled, or no meaningful engagement

Part (d)

Should engage with method in (c) and with the stimulus material. Marking allocation as for part (b).

Exemplar Responses from Summer 2003

Unit 4: Question 3

- (a) Outline **two or more** explanations of media influences on anti-social behaviour. (12 marks)
- (b) Evaluate the **two** explanations of media influences on anti-social behaviour that you outlined in part (a) in terms of relevant research studies. (12 marks)

(see Appendix – Mark Scheme, page 120)

Candidate G

(a) The first explanation of media influences on anti-social behaviour that must be considered is the social learning theory by Bandura. The social learning theory focuses on two predominant learning processes: imitation and operant conditioning, and a combination of both known as vicarious reinforcement. Imitation can be explained in terms of media influence in that we witness a role model in the media or on television displaying anti-social behaviour and we proceed to copy that behaviour at a later time. The process of operant conditioning, where we are rewarded for a certain behaviour and so repeat that behaviour again is only affected by the media in terms of vicarious reinforcement. Bandura argued that this is where we see a role model in the media being rewarded for their anti-social behaviour and so we are likely to imitate that behaviour ourselves. Bandura argued that the role model is likely to be the same gender or race as the imitator as they have more identification with each other.

Bandura's ideas were supported by his various studies with the Bobo doll, whereby children who saw an adult behaving aggressively towards this doll were more likely to imitate the behaviour. These studies are widely recognised and support the ideas of Bandura, they also support the idea therefore that role models in the media could also have a huge effect.

The second explanation of media influence on anti-social behaviour is cultivation theory. Cultivation is a fairly recent idea in comparison with social learning theory and proposes that we form a false social reality that the world around us is more dangerous, aggressive and anti-social than it really is. This false social reality is caused by the anti-social behaviour that we see in the media, for example if we witness a large amount of muggings in the media or on television then we assume that there really are a lot more muggings in real life than there really are. The false social reality causes us to behave in a more aggressive and anti-social manner in order to protect ourselves from harm in this dangerous world. It must also be recognised however that the process of cultivation can occur for pro-social images in the media.

(b) Whether the media is responsible for anti-social behaviour is a conflicting issue and the research studies around the issue are conflicting. The long-term St. Helena project, where television was only introduced in 1995 to the island, found that the introduction of television caused no increase in anti-social behaviour. The children's behaviour on one island was monitored before and after the introduction and no increase of anti-social behaviour was found. However, seen as this is a limited sample from a small island community it may not be reasonable to generalise this to other populations. Furthermore, it has been suggested by many that the children could have learned the behaviour but they were not demonstrating it because of their cultural situation.

Bandura has found that after watching violent films people were more likely to demonstrate aggressive behaviour than those who watched non-violent films, suggesting that the media does influence anti-social behaviour.

Other researchers have found a link between watching aggressive, violent films and an increase in aggression later in life. This would contradict Bandura who claimed that the effect was immediate whereas this would support cultivation theory which only takes place over a longer period of time. One research found that watching violent films in prison also led to increased aggression among juvenile delinquents supporting the idea that media does increase aggression. Yet this study was criticised as due to the situation the juveniles were likely to be aggressive already and it is a biased sample so the findings can't be generalised.

In contrast to all these studies, Sprafkin found that the media can have a positive impact on behaviour. He found that children who watched an episode of Lassie where a boy saved a puppy were more likely to help puppies in a contrived situation. This demonstrates that the media can be responsible for pro-social behaviour.

It appears obvious from this conflicting research that the influence of the media depends on which programmes are watched.

(see Appendix – Responses, page 123)

Candidate H

(a) Anti-social behaviour is rampant in the media and the causes are numerous. The sheer amount of violence that we are exposed to means that we must become accustomed to it. This is known as desensitization. This occurs when so much anti-social behaviour is seen that it becomes the norm and is no longer effective and arousing as it might have been before.

Another effect that the media might have on anti-social behaviour is that it tends to stimulate it. When impressionable individuals, such as children, watch anti-social behaviour they tend to learn it through observation, hence the term observational learning. This, although unintentional, may have far reaching effects and sometimes the individual may imitate the behaviour. For example, when a child watches a wrestling match on TV and becomes slightly aroused, the child might find that the feeling of arousal is slightly enjoyable so to obtain it again might replicate that behaviour to the detriment of other people.

Another reason why media influences anti-social behaviour is that the model on the screen is a role model and children emulate heroes, because what they do must be correct. This is explained by vicarious reinforcement where seeing someone else get pleasure from doing something increases the likelihood that the child might repeat the behaviour.

Another explanation that the media might have on anti-social behaviour is called disinhibition which is when seeing violence on TV weakens pre-learned morals because you see someone else doing things that you thought you shouldn't do. This means you feel less inhibited about repeating such behaviour.

(b) Research tends to lean towards the view that anti-social behaviour (i.e. aggression) does tend to be created by the media.

Bandura et al. performed an experiment to test the effects of the media on anti-social behaviour. The experiment involved a Bobo doll which is a doll that rises back up after being hit. The doll was struck in a number of situations. In the first situation the doll was struck by an adult (while a child watched) and the adult was rewarded for this action. In another instance the adult struck the doll and was punished. Finally the adult struck the doll and nothing happened. The children were more likely to copy the behaviour of the adult when he was rewarded or left alone rather than if he was punished. This shows that watching behaviours on the media may have an effect however this only takes place when participants have low self-esteem or are still developing, like children. The validity of these findings can be questioned as the study took place outside the context of real life but the tapes being played on screen might have simulated reality effectively enough to work. The problem with this research is that demand characteristics are in play. The children were not given instructions about what to do and they may have assumed that certain behaviours were required.

A piece of research which does not support this is the St. Helena experiment, where a small island was introduced to television for the first time. The anti-social problems were very low before television and even after its introduction the figures remained low. This could suggest that family/society values had a key role in anti-social behaviour.

In a remote part of Canada, TV was introduced and within a short space of time anti-social behaviour had risen steeply. This suggests that, in some situations i.e. Western cultures values are more easily corrupted.

The media on the other hand are also responsible for pro-social messages such as programmes like Sesame Street. This shows that although anti-social behaviour can be explained because of the media, there are other messages to.

(see Appendix – Responses, page 125)

Unit 5: Question 7

- (a) Explain what is meant by reductionism. (5 marks)
- (b) Describe and evaluate the case **for** reductionist explanations in psychology. (25 marks)

(see Appendix – Mark Scheme, page 127)

Candidate I

(a) Reductionism is the notion that the whole can only be understood by the sum of its parts. Reductionism attempts to explain behaviour by reducing it to its simplest components. It breaks down behaviour significantly in an attempt to comprehend it as a whole. This makes it scientifically more testable.

(b) There are many reductionist explanations found within psychology. Freud's theories are reductionist in that they explain adult behaviour as a result of early childhood experiences. For example, Ainsworth's attachment types (avoidant) are a result of the relationship between mother and child.

Behaviourists, especially Skinner, also demonstrate reductionism in that they explain behaviour as a result of learning. They believe that all behaviour is learnt from the environment. Classical conditioning proposes that behaviour is a consequence of learning through association, that is stimulus-response links. As indicated by Pavlov's dogs and their salivation at the sound of a bell.

Operant conditioning is learning through reinforcement, positive reinforcement such as a reward, praise or food, and negative reinforcement in the form of punishment. This can explain eating disorders such as anorexia, those who lose weight are positively reinforced when complemented with the weight loss.

Bandura's (1961) social learning theory is also reductionist, although an improvement to the other learning theories. It assumes that we learn by observation, by direct or vicarious reinforcement resulting in people modeling the behaviour.

These behaviourist explanations are reductionist in that they focus only on one aspect – the environment as a causal influence of behaviour. The biological approach is also a terribly reductionist view of behaviour, especially mental illness being derived from physical causes, insinuating a malfunction of biological systems.

For example, their explanation of schizophrenia is a result of an excess in the brain of the neurotransmitter dopamine. Yet it is unknown whether the high dopamine levels are a cause or the result of the disorder.

The evolutionary approach too is reductionist, based on the premise that people behave as a result of their genes. Here relationships are explained in terms of the propagation of their genes, and that according to Buss (1989) men seek younger attractive females as this indicates fertility whilst women seek older established men to help bring up their offspring. This fails to take into account cognition, or social molding, or even individual differences but rather reduces human behaviour to animal-like qualities.

Cognitive psychologists view behaviour as purely the result of thinking, and therefore reduce behaviour to a simple component. It further reduces behaviour by comparing the human mind to that of a machine in order to understand it. Considering memory to consist of storage and retrieval, rather like that of a computer. This is a terribly mechanistic approach and simplifies behaviour to a great extent. This approach ignores childhood experiences, biology and the influence of the environment.

Stress can be explained using the diathesis-stress model, which insinuates that we have a genetic predisposition to become stressed, yet the presence of a stressor is also required. This encompasses both genetic and the environment which seems to be lacking. Experimental investigations are also reductionist, manipulating one variable in an attempt to see its affect on the other. This lacks ecological validity because attempts to replicate this behaviour outside this artificial setting has been largely unsuccessful. The reductionist approach is also deterministic, as it simplifies behaviour to such an extent that it assumes that there is one cause of behaviour. Studies on aggression have been reductionist focusing on just stressors such as noise or being in a crowd. Ignoring the mood or emotion of the individual. Memory models such as Atkinson and Shiffrin's (1968) is also reductionist, ignoring the impact of emotion while using the computer to simplify the processes.

IQ is also reductionist as seen with the use of intelligence tests. These are developed by Western individualist cultures so are culturally biased and can no way bear resemblance or significance to other cultures.

Eating disorders can also be explained in terms of a genetic predisposition, ignoring the fact that the individual may have learnt to avoid to eat.

By reducing behaviours to a set of simple influences almost suggests that there is no room for free will of the individual. Even the nature-nurture debate can be viewed as reductionism for behaviour is simplified and reduced to fit either one category or another.

The concept of reductionism is effective in that it makes scientific investigation possible, managing to establish cause and effect. Yet it is only useful for quantitative data rather than qualitative data which be more fitting for areas of psychology. For example, stage models relating to bystander apathy or the dissolution of relationships (Duck) emphasise simplicity but people are unpredictable and unique creatures and to simply reduce behaviour to such an extent is to de-emphasise and undermine the richness and complexity of behaviour.

(see Appendix – Responses, page 131)

Candidate J

(a) Reductionism describes being able to best explain complex phenomena such as behaviour, in more simple processes. This could be in terms of biology, unconscious forces or our environment. Explaining behaviour in terms of genetics, evolution or unconscious forces are forms of internal reductionism and environmental factors such as social or behaviourist concepts such as conditioning are forms of external reductionism. According to Occam's razor we can best understand complex phenomena by cutting away excess information to find the underlying cause of events.

(b) Psychology fits into a hierarchy of sciences in the order of sociology, psychology, physiology and biochemistry. It is suggested that each can be informed by the other and the most reductionist of the hierarchy is biochemistry. The behaviourist explanation reduces complex psychological phenomena to a person's conditioning. According to the behaviourists behaviour that is rewarded will be repeated.

This is reductionist as it ignores other factors such as biology and cognition in causing behaviour as well as ignoring 'free will'. An advantage of this reductionist approach is that it enables psychology to gain credibility as a science. This form of reductionism allows psychological research to test falsifiable hypotheses such as stimulus response associations. It enables psychology to establish cause and effect relationships and this has practical application. The notion that behaviour can be explained in terms of conditioning is supported by much empirical research on animals. Skinner found that a pigeon was more likely to press a lever if it was rewarded. This has practical application in the case of schizophrenics and token economies.

Another reductionist explanation is the biological model. The biological model explains behaviour in terms of genetics and biochemistry. The biological model is invaluable in informing our understanding of psychology. Theories on the biochemical imbalances of psychopathological disorders such as depression and the success of drug treatment highlight the value of such explanations. However, the success of drug treatment cannot be fully explained by this reductionist perspective. Drug treatment effects levels of neurotransmitters immediately but can take several weeks to come into effect. Therefore this reductionist explanation cannot adequately explain psychopathological disorders in terms of pure biochemical imbalances. Furthermore expressed emotion effects the relapse of schizophrenia which cannot be explained by this reductionist approach.

The psychodynamic approach explains behaviour in terms of innate, often sexual/physical forces. The advantage of this reductionist explanation is that it allows us to establish a cause for behaviour usually an unresolved conflict in childhood and allows therapy to resolve unconscious conflicts between the id, ego and superego. Another advantage of this approach is that it is individualistic. However the extent to which it informs our understanding of psychology is questionable because it is unfalsifiable and unscientific.

A reductionist approach helps inform our understanding and conduct scientific research. However the whole is worth more than the sum of the parts and often, as in the case of schizophrenia, a diathesis-stress model is most appropriate.

(see Appendix – Responses, page 134)

Unit 5: Question 8

It has been claimed by some people that there is a growing trend for “body decoration” in young people in Britain today. Many young men and young women now display a wide range of tattoos and have almost every conceivable part of their bodies pierced and adorned with jewellery. How might this be explained?

- (a) Describe how **two** approaches might try to explain the desire for body decoration. *(6 marks + 6 marks)*
- (b) Assess **one** of these explanations of the desire for body decoration in terms of its strengths and limitations. *(6 marks)*
- (c) How would **one** of these approaches investigate the desire for body decoration? *(6 marks)*
- (d) Evaluate the use of this method of investigating the desire for body decoration? *(6 marks)*
(see Appendix – Mark Scheme, page 136)

Candidate K

(a) The cognitive approach would consider the desire for body decoration to be part of vision. The individual may find tattoos and piercings very appealing to look at therefore he/she would also pierce or tattoo their body in order to be appealing according to their schema.

The behavioural approach would use Bandura’s Social Learning Theory, since the people that are decorating their bodies are relatively young they learn through attention – the person with the belly button piercing is very pretty, receives many compliments on the piercing and one can associate with them. This then leads to retention – one remembers that the piercing brought attention. Modelling – now they get their belly button pierced. Reproduction – now one has the piercing one will also receive compliments (vicarious reinforcement). This is also the factor that during adolescence peers are one of your main pressures and you feel the need to do as they do to fit in.

(b) The behavioural model is mechanistic, deterministic and reductionist. It assumes that the environment influences behaviour and excludes genetic reasons for behaviour such as altruism. The model also assumes that all humans are quantitatively similar and much research was based on non-human animals. However, social learning theory shows the powerfulness in learning when vicarious reinforcements are involved, and the reductionism allows it to be more objective and to be more easily assessed and discussed.

(c) The desire for body decoration can also be explained using classical conditioning in the behavioural approach. The neutral stimuli is the belly piercing or tattoo and when others in the peer group complement the decoration often members of the group will begin to pair the two together (decoration and compliments). Therefore every decoration they see they will begin to think that it is very ‘cool’ and, for them to receive the same compliments, they will do the same (vicarious reinforcement). This then leads to generalisation and the individual will begin to explore other areas to pierce or tattoo as well.

(d) This method has been proved to work as in the case of 'Little Albert' who feared rats because their presentation was paired with loud noises. This fear then led to generalisation and Albert began to fear all white furry objects. Operant conditioning also goes hand in hand with classical conditioning and in the case of body decorations the continuous compliments will be reinforcing and lead the individual to pierce or tattoo other parts of their body to gain more compliments. Although this is associated with fear, Pavlov proved classical conditioning to be paired with positive stimuli. For example the dogs were conditioned to salivate on the sound of a buzzer and generalisation led them to salivate on the sound of similar buzzers. Pavlov also conditioned the dogs to salivate when a picture of a circle was present. Generalisation led them to salivate on presentation of an ellipse.

(see Appendix – Responses, page 139)

Candidate L

(a) The desire for body decoration could be explained in terms of a behaviourist approach. The behaviourist approach suggests that all behaviours are the product of learning through stimulus response mechanisms. In this case having a tattoo or body piercing may be seen as 'cool' and therefore praise would be given which would serve as reinforcement for this behaviour. The attention which is gained from this activity which is a reinforcement will be repeated each time the behaviour is repeated, and this will encourage further repetition. A further reinforcement may be the adrenaline rush before having a procedure which would encourage repetition of behaviour.

An extension of the behaviourist approach is social learning theory. This would propose that this behaviour can be vicariously reinforced. For example, if personalities on the TV are admired for their piercings or tattoos this would serve as a reinforcement for the behaviour the person is watching. Social learning theory also accounts for how behaviours can be formed in the first place – in this case seeing another receiving praise for this behaviour may lead to modeling oneself on this person and therefore replicating their behaviour to try and gain the same reinforcement.

An evolutionary/biological approach might suggest that this behaviour is a form of exhibitionism used to try to attract a mate. Evolutionary theory suggests that we are primarily concerned with the survival of our species and therefore reproducing is extremely important. The desire for body art may be a desire to attract attention from the opposite sex. The 'best' tattoo or piercing will draw the most attention. This kind of exhibitionism is evident in many animals who display brightly coloured feathers for example. The evolutionary approach would also explain why this behaviour is only seen in younger people – as these people are at a reproducing age. The fact that the survival of the species, according to this approach is of primary importance would explain why people have tattoos and piercings despite the fact that they can be very painful.

(b) The behaviourist approach does explain why there would be a 'craze' for body piercing – as the reinforcement for one person doing it may lead to others replicating this behaviour. Social learning is also able to explain the formation of this new behaviour as the media can suggest these behaviours which are then displayed by young people.

This approach begins to explain why things may go in and out of fashion – it's simply a matter of praise or following others. In criticism it is questionable why people have tattoos as they are so painful. The pain of a tattoo should serve as a punishment and extinguish the behaviour. However the praise for the behaviour may simply outweigh this.

The behaviourist argument is very reductionist and it supposes we are simply a machine to be programmed by conditioning. Finally it doesn't really explain why body art is in the form of tattoos and piercings, why not use henna or hair dye? Does the media really dictate fashion so strictly?

(c) The behaviourist approach favours laboratory experiments as it is fairly easy to control the variables and reinforcement stimuli. The behaviourist approach could investigate the desire for body piercing by looking at how 'punishment' changed these views. The experiment would use 3 groups (independent measures) to avoid demand characteristics. One group would be asked to watch a series of films in which people with tattoos and piercings were treated badly, another groups to see films in which they were praised and another group a set of neutral films. After this programme of films each participant would be asked their views on body piercing and tattoos and asked to rate the likelihood of them having body decoration. The average likelihoods from each of the 3 groups could then be compared. This approach would expect to find that the group who watched the negative treatment of the people with body decoration would have the lowest likelihood, followed by the neutral group. It would be necessary to have a representative sample (gender and culture) and the researcher would have to decide whether to include people with tattoos in the sample or to test them separately - as their behaviour has already been formed and reinforced and may not be easily changed. It would be necessary to debrief participants as deception would be needed at the start of the experiment to avoid demand characteristics.

(d) The lab experiment has several advantages. It is relatively easy to control the independent variable in a lab experiment and to observe and compare the results (dependent variable). It is therefore possible to assume cause and effect and draw conclusions from an experiment.

However, this experiment is not very ecologically valid. In the case of body art it is probably reinforcement from friends which makes a difference not the media which is being looked at here. There may also be a problem with demand characteristics in this experiment as after watching films on body art a questionnaire's aim may be clear.

A person's reaction to a situation in real life is different to in a lab - might be more sensible to measure the opinions of the friends of people with and without body art to determine what effect reinforcement has. There may be some minor ethical problems as deception would be necessary to avoid demand characteristics but this would be avoided with debriefing.

(see Appendix – Responses, page 141)

Delivery of the Course

Essential Considerations

- **The whole A2 specification is not compulsory.** The minimum requirements are set out on page 38.
- **Questions are derived from the specification.**
If it is on the specification it could come up in the exam.

For example, questions may be asked on Piaget's theory of cognitive development because 'Piaget' is included in the specification. Questions cannot specifically be asked about Piaget's theory of *moral* development as in this subsection Piaget is provided as an example; questions could be asked about '**one** theory of moral development' leaving it up to a candidate as to which theory they choose to discuss.

- **The number of theories/studies to be covered.**
Questions are asked that require candidates to 'Discuss **one/two** explanation(s) of X' or to 'Discuss **one/two or more** explanations of X'. Therefore candidates are not required to learn about more than two explanations or studies in any part of the specification. However, it may be helpful to know about a third (or even more) theories/ explanations/ studies for a number of reasons, further theories/ explanations/ studies may be used for evaluation, they may be useful in questions where more than two are creditworthy and candidates do not feel they know enough detail about only two to gain full marks.

Bear in mind that, in the examination, candidates will only have a maximum of 15 minutes (module 4) to describe a theory, and 15 minutes (module 4) 20 minutes (module 5) to evaluate it. If the candidate uses studies as evaluation the description of the studies should be minimal.

Description of research studies will only be required where these are noted in the specification, such as in Module 4, the division entitled 'sleep' refers to research studies but not in the division entitled 'dreaming'.

- **Focus on skills as well as content. AO1 and AO2 are skills.**
Students need to develop and practise these skills rather than just learning content. Often teachers cover more content than necessary and leave too little time for practising skills.

Synopticity

Unit 5 rewards the demonstration of synopticity. Synopticity can be defined as ‘affording a general view of the whole’. It is the addressing of psychology-wide matters and concerns, a way to draw in the threads that run through the specification.

Questions on Unit 5 will be set so that they are synoptic by their very nature i.e. a candidate who fully answers the question *must* provide evidence of synopticity. For example ‘Discuss **two or more** examples of gender bias in psychology’ requires a candidate to look at more than one example of gender bias and thus must be synoptic. The same is true for the question ‘Discuss biological explanations of depression’ because more than one explanation within the area of biology is required.

Synopticity may be demonstrated either within a particular area (e.g. ‘Discuss biological explanations of depression’) or across a number of different areas (e.g. ‘Discuss psychological and biological explanations of depression’).

Candidates can gain full marks by answering the question set. However, they may also wish to add further synoptic material to the ‘straightforward’ content. For example, being aware that ethical comments may be appropriate or mention of culture bias. Such ‘additional’ synoptic material (additional to what is the central content of the essay) may be regarded as ‘value-added’. This may be a particularly useful approach for a weaker candidate who has run out of steam in the exam and might thus attract a few extra marks by adding *relevant* synoptic material.

Ways of gaining additional synoptic credit:

- Demonstrating different explanations or perspectives.
- Demonstrating different methods used.
- Relating overarching issues and debates.
- Links with other areas of the specification.
- Psychology-wide concerns and issues such as reliability and validity, cultural variation and demand characteristics/participant reactivity (e.g. iatrogenesis).

Ideas about the Delivery of ‘Issues and Debates’

Questions on the Issues and Debates section of Unit 5 are intended to draw on a candidates’ knowledge from AS Psychology and Module 4 studies. For example:

June 2003 Question 5

Discuss ethical issues relating to **two or more** psychological investigations that have involved human participants. (30 marks)

June 2002 Question 5

- (a) Describe **two or more** of different types of cultural bias in psychology. (15 marks)
- (b) Evaluate **two or more** psychological theories in terms of their cultural bias. (15 marks)

The table below makes some suggestions about where you might locate suitable material for the issues and debates questions. These are *suggestions* only and *not* intended as a prescriptive list.

Issues		
Gender bias	AS	Stress (e.g. research with male participants has led to a biased view of how people respond to stress).
	A2	Moral development (e.g. Kohlberg's theory based on research with males. Gilligan has proposed the differences in moral reasoning identified between men and women are both due to biased research but also that there may be 'real' differences)
Cultural bias	AS	Attachment (e.g. the Strange Situation was developed with American children and may not be appropriate as a method of measuring attachment in other cultures leading to erroneous (bias) classification of non-American children) Social influence research (Explanations of conformity and obedience largely based on research with male American undergraduates and such explanations are therefore biased)
	A2	Cognitive development (e.g. Piaget's theory represents Western, individualist approaches to learning; culture bias in IQ tests).
Ethical issues	AS	Attachment (Treatment of Genie by psychologists) Social influence research (e.g. studies by Asch, Milgram and Zimbardo)
	A2	Pro- and anti-social behaviour (e.g. studies of the effects of violence on children's behaviour – Bandura)
Use of non-human animals	AS	Attachment (e.g. studies by Harlow and Lorenz) Stress (e.g. studies by Selye and Brady)
	A2	Sleep and dreaming (e.g. studies by Jouvet and Rechtschaffen) Comparative psychology (e.g. teaching non-human animals to use human language, naturalistic observations of non-human animals)
Debates		
Free will and determinism	AS	Cognitive psychology (e.g. schemas determine how the world is perceived) Abnormality (e.g. biological, psychodynamic and behavioural explanations) Social influence (obedience is example of situational determinism)
	A2	Personality development (Freudian theory, and social learning approach) Evolutionary explanations of human behaviour
Reductionism	AS	Stress (physiological explanations) Abnormality (Behavioural approach)
	A2	Brain and behaviour Attention Evolutionary explanations
Psychology as a science	AS	Human memory (laboratory experiments) Attachment (observational studies) Stress (laboratory experiments and studies using correlational analysis)
	A2	Attention research (experiments) Humanistic and social constructionist approaches
Nature-nurture	AS	Attachment (Behaviourist versus evolutionary explanations) Abnormality (Causes)
	A2	Perceptual development Language acquisition Development of intelligence Psychopathology

Ideas About the Delivery of the 'Approaches' Question

What counts as an approach? Candidates can use **any** 'approach'.

Candidates could for example use the biological approach and include under this umbrella both physiological and evolutionary/genetic explanations, or candidates could present physiological and evolutionary explanations as two separate approaches. However, candidates must make it clear to the examiner whether they are to be treated as one approach or as two different approaches.

Part (a): Two Approaches

The approaches question requires that candidates both **know** about the approach but most importantly are able to *use* this knowledge. When describing an approach, candidates should be encouraged to use the appropriate terminology, and apply this to the behaviour in the stimulus material. Marks will be limited to a maximum of 2 out of 6 where there is no engagement with the stimulus material.

For example, learning theory terminology has been applied in the paragraph below to explain why Tina likes to climb mountains (words italicised).

Tina climbs mountains because it is *rewarding* in many ways: the views, the sense of achievement, sharing the company of the people she likes. All of these are *positively reinforcing* – every time she goes mountaineering they *increase the probability* that she will do it again. *Negative reinforcement* also takes place because she is escaping from the cares of everyday life – for a day she thinks only of the mountains. One might think that the hard work involved in climbing would act as a *punisher* (decreasing the probability of a behaviour being repeated) but the rewards clearly outweigh this. There may also be an element of *vicarious* learning.

Part (b): Strengths and Limitations

- Candidates can **use either** of the approaches identified in part (a).
- Candidates must include strengths **and** limitations though these need not be in equal amounts.
- Marks are awarded for the extent to which candidates engage with the material.

Part (c) Investigating the Approach

There are several routes to answering this part of the question:

1. Test the specific behaviour identified in the stimulus material (e.g. in the example above, climbing mountains).
2. Generate a hypothesis from one of the explanations offered in (a) and consider how this might be tested in an appropriate manner for the identified approach (e.g. in the example above, investigating whether rewards to increase the likelihood of behaviour being repeated using an experiment as would be appropriate for learning theory).
3. Propose a number of different (and appropriate) ways to investigate the behaviour in the stimulus material and/or hypotheses generated in (a).

The 'routes' described above all sound very experimental methods but candidates can use non-experimental methods.

In constructing an answer to this part of the question it may be helpful for candidates to consider the many different aspects of design, such as whether to use repeated or independent measures. What sampling technique might be used, what variables need to be controlled? What threats might there be to validity? Are there ethical issues that need to be considered?

Remember

- Candidates can use either of the approaches they have described in response to part (a) of the question.
- The investigation must embrace the principles of this approach.
- Candidates should not describe an existing study.
- They should not describe treatment of the behaviour described in the stimulus material.
- In questions where an individual is described in the stimulus material, candidates should not be investigating that individual (such as Henry or Anne). They should investigate the behaviour identified in the question.
- They should not describe an implausible investigation/procedure - this does not demonstrate psychological knowledge.
- They can describe several different investigations.

Part (d) Evaluating the Method

- The evaluation must be contextualised.
- There is no requirement for candidates to consider strengths ***and*** limitations.
- Candidates should consider how well (or not) the method would work as a means of investigating the explanation of the behaviour identified in the question.

Improving Candidate Performance

Where Marks are Typically ‘Lost’ in A2 Questions

1. Lack of sustained critical commentary

One acceptable means of evaluating a theory is to consider a contrasting theory or explanation. However, marks will only be credited when such evaluation is **sustained**. In other words, when there is a genuine attempt to use aspects of the second theory as evaluation rather than simply to say, “A different approach, however, was taken by Freud...” and then lock into a ‘straight’ Freud essay. Material must be consistently critically related.

2. Effective use of material

Candidates often fail to make effective use of their material. For instance, in answering a question on ethics or the use of animals in psychology a candidate might offer a highly detailed description of Harlow’s studies but not really relate the study to the question. Or, in an AO2 question such as “To what extent do research studies support the view that non-human animals have language”, candidates describe such studies rather than using them as part of a critical argument.

3. Lack of elaboration

Frequently candidates offer a fragment of evaluation, such as saying that ‘Freud was sexist’ or that ‘the study lacked ecological validity’. In order for commentary to be described as ‘coherently elaborated’ candidates should remember the AS three point rule: identify criticisms, explain/justify this statement with reference to the particular study or theory, and finally to explain why this *is* a criticism. For example, a candidate might state that one problem with Freud’s theory is that he was sexist. The candidate might then give an example, Freud suggested men and women differ in their moral development. Finally, consider whether it is a problem, for example Freud lived in sexist days, can we reasonably expect anyone to stand apart from their times? Feminist writers such as Mitchell have taken out the sexist parts of his theory and found that it still stands up.

4. Confusion of bias (gender, culture) with differences

Differences are facts identified by psychologists, which existed before psychologists investigated them. However, in some cases the differences identified by psychologists are not real but appear only because the tools for measuring/observing behaviour are biased. Some candidates seem to believe that any research which shows differences (e.g. between men and women in intelligence) is *de facto* biased. In the same spirit any research which has not been cross-culturally replicated (probably about 99% of psychology!) is guilty of cultural bias.

5. Comparing and contrasting

The definition of comparing and contrasting is given in the ‘terms used in examination questions’. Marks will be awarded for descriptions of named topics (AO1) and any consideration of their similarities and differences (AO2). Candidates who just describe and evaluate the topics will probably fail to pick up any AO2 marks. Evaluative material *may* receive credit if it constitutes an elaboration of the description.

Candidates who take the more ‘traditional’ route to answering ‘compare and contrast’, i.e. by **identifying** similarities and differences and then **evaluating** these will be marked differently: AO1 marks for the description of similarities and differences, and AO2 marks for the evaluation.

6. Arguments for and against

When presenting arguments in favour of, for example, reductionism, candidates may use the arguments against this position as a form of evaluation (AO2) **but** only if such arguments are clearly related (i.e., not separate, unrelated points).

7. Not answering the question

This is a standard criticism but candidates continue to lose many marks because they have prepared a particular answer and make no attempt to break this up to fit the question set. For example, when asked to 'Discuss arguments for reductionism' candidates appear unable to adapt their knowledge about the arguments against reductionism, or about examples of reductionism in psychology.

8. Writing introductions

There are not special marks for an introduction. An introduction that outlines the plan of the essay may gain some credit insofar as this contributes to the overall organisation of the essay. Otherwise, introductions usually fail to gain any credit. Candidates often begin by defining certain terms or, in the case of essays on psychopathology, listing clinical characteristics. Unless the question specifically asks for such material it does not gain any credit.

9. Writing conclusions

Conclusions are often little more than a summary of the points that have already been made, and therefore attract few, if any additional marks. Conclusions which are more than this will gain marks, such as offering **commentary** on the AO1 points. Conclusions can also be used as a good way of **beginning** an answer and structuring the essay. For example if asked 'To what extent do research studies support the view that the media are responsible for anti-social behaviour?' it may be useful to advise candidates to start with an answer and then continue by seeking to support their answer, and to offer evidence that challenges the conclusion.

10. Presenting narrow theories rather than broader approaches

When a question requires the description of **one** theory, it is always a better strategy to identify an overarching theory, such as learning theory, rather than a more narrow one, such as social learning theory – where this is appropriate. For example, in the approaches question, it is better to select the psychodynamic approach rather than dream analysis because far more material can be introduced. Similarly it is better to use the biological approach and include evolutionary and physiological explanations within this.

Improving AO1 Skills

There are four AO1 criteria and each can be regarded as skills to be practised.

1 Knowledge

Candidates must display knowledge. However there is a limit to how much knowledge can be displayed in 30 minutes (or 40 minutes, in the case of Unit 5). Sometimes gaining high marks is as much about what candidates decide to leave out as what they choose to put in. Teach students how to be selective. Start by selecting material from textbooks. Also restrict the material you present to your students.

2 Understanding

Carefully chosen examples that are psychologically informed are one means of showing an examiner that a student understands a theory or study. Explaining concepts or studies to other students may help students increase their understanding. We all know that teaching improves understanding and this principle explains why peer tutors sometimes gain most from peer tutoring programmes.

3 Depth (detail) Versus Breadth

The main content of the essay should aim to achieve a balance with good detail for each theory/study weighed against the breadth of theories/studies that can then be covered (depth-breadth trade-off). If you teach your students too much they will try to fit it all into the essay and lose marks because they have sacrificed breadth for depth.

Equally students should not record procedural details of a study unless this has been specifically asked for or if the details service a point that is being made. Only details that are relevant and demonstrate sufficient knowledge and understanding will gain credit. For example, in an essay on ethical issues, it might be appropriate to mention Milgram's studies of obedience and to include mention of some of the procedures he used which were unethical to illustrate in what way his studies were unethical. However, some candidates include far too many further details, many of which are entirely irrelevant and not creditworthy.

4 Organisation and Construction of Essay

Someone who knows and understands a topic well can produce a well-organised account; a thin grasp of a topic results in dumping 'everything-I-know-about-this' on the page. So structure is a way of demonstrating knowledge and understanding. Essays should clearly be organised as answers to the question set and not one I prepared earlier.

Improving AO2 Skills

AO2 refers to analysis and evaluation. The interpretation of what constitutes analysis and evaluation is very wide, so examiners frequently refer to a more generic term – 'commentary', to refer to any content that is suitable for AO2 marks. Good commentary should be thorough rather than restricted to one or two throwaway points. Good commentary means effective commentary rather than, for example, just describing a potentially relevant study.

For many students, their perspective of what constitutes analysis and evaluation amounts to little more than negative criticism. However, AO2 skills come in many different forms, broadening possibilities for students looking to maximise their AO2 marks.

Drawing Conclusions – this demonstrates to the examiner that a candidate understands exactly what a piece of research has accomplished, and how this fits in with the argument being developed.

Demonstrating Consequences/Making Inferences – what are the consequences of a particular study, theory or model. If Cialdini's views on the egoistic nature of human behaviour are correct, what are the consequences for our understanding of altruistic behaviour?

Demonstrating Alternative Explanations – there is always an alternative explanation for any research finding or theory in psychology. However, simply describing such alternative views does not constitute AO2 on its own, these must be part of an effective argument that incorporates the alternative perspective.

Demonstrating Research Support – this is an extremely useful (and occasionally requested in examination questions) way of demonstrating AO2. Does a particular theory or explanation have any research evidence to back up its claims? Does other research in the area back up the conclusions of a research study described as part of AO1 material? That's the way psychology works, so there should be no shortage of material to serve this need. As with the point about alternative explanations, it isn't sufficient (or even appropriate) to simply describe supporting research, it should be built into an evaluative statement. This is explained later in further detail.

Demonstrating Challenging Research Evidence – of course, research occasionally challenges the claims of a particular theory, explanation or research study. The same rules and rationale apply as for studies that are more supportive. It is always wise for candidates to ask themselves, "what does this mean for the theory (explanation, research study etc.) in question?", and then to state this in their answer.

Demonstrating Individual Differences – the existence of individual differences (e.g. gender, cultural, sexual) is a real and enduring problem for social psychologists trying to find universals of human behaviour. Candidates might evaluate theories of attraction and relationships by demonstrating differences between heterosexual and homosexual relationships, or between face-to-face and mediated (e.g. Internet) relationships. As with the previous examples, simply describing differences isn't sufficient.

Demonstrating Applications of Theories or Research – this is a way of assessing the value of a particular area of psychology. Again, simply describing the applications isn't sufficient.

Examples of How to Write AO2 Comments

Candidates must aim to make their AO2 content explicit. It ensures that the examiner gives AO2 credit where they intended it, and it also helps to structure the AO2 response so that it is given in the right places and in the right way. To help candidates in this task, the use of lead-in phrases will ensure that AO2 material is obvious, well structured, economically written and above all thorough.

Drawing Conclusions

This suggests that... people would not act altruistically for purely selfless reasons, as suggested by Batson, but rather because of more selfish reasons.

So we can see... that none of the theories of altruism suggest that helping behaviour is entirely without selfish motive, but rather that the relationship between giver and receiver may in some way mediate this process.

Demonstrating Consequences/Making Inferences

This would imply that... human nature is fundamentally selfish, and that what appears to be altruistic behaviour is actually selfish behaviour in disguise. One consequence of this would be that... people begin to discriminate against members of the out-group because they are evaluated more negatively compared to members of the in-group. Therefore... militancy against those seen as responsible for this relative deprivation becomes a way of dealing with the frustration experienced by this perceived discrepancy.

Demonstrating Alternative Explanations

An alternative explanation might be that... this form of prejudice has some evolutionary significance, with non-selective mating being disadvantageous in some way. Prejudice would then have evolved as a means of ensuring that such disadvantageous mating did not take place.

Demonstrating Research Support

This is supported by evidence from... Sherman et al (1984) who found that in a study of American High School boys estimating the percentage of their peers who smoked, smokers put this figure far higher than did non-smokers. This therefore supports the case for the existence of a false-consensus bias in attribution.

Demonstrating Challenging Research Evidence

This is challenged by... Mandel (1998), who found, in his studies of real life events during the Holocaust, little evidence of the types of 'blind obedience' proposed by Milgram.

Demonstrating Individual Differences

Not everyone reacts in the same way... for example Wood and Duck (1995) point out that we know very little about relationships between lesbian gay, disabled or other marginalised groups in society. There may be cultural variations in this behaviour... therefore many of these explanations may not be applicable or relevant to Western cultures, representing a more narrow view of human behaviour that is in turn the product of researchers whose own views are inevitably shaped by the same cultural experience.

Demonstrating Applications

This theory has been applied to... collective dilemmas (such as saving water during a drought), where a person's primary identity (either personal or collective) defines the likelihood of them behaving altruistically in such situations.

How to Make AO2 Effective

When candidates are choosing commentary, it is important that it is presented in an AO2 form rather than simply adding more descriptive material. If you look back at the example concerning cultural variations, you will see that this does more than simply identify cultural variations, but indicates why these variations are problematic for the explanation in question. This is the next problem. How do candidates ensure that whatever points of analysis or evaluation candidates make, are made effectively?

One thing should be clear from this review of the different forms of commentary, and that is that effective commentary is more than just identifying a point of evaluation. To really give commentary impact, candidates should first identify and then develop a point. Having identified a point of commentary, they need to ensure that:

- It is appropriate to the material being ‘evaluated’ (“Is it relevant?”)
- It is justified (“How do I know that?”)
- It is elaborated (“So why exactly is this a problem?”)

For example:

“This study lacked ecological validity...”

This study lacks ecological validity because (identification)...attempts to replicate the findings in other situations have been largely unsuccessful (justification)...This therefore means that the results of this study cannot be generalised beyond this situation (elaboration)”

“This study only used students...”

This study only used students. There is evidence (Sears, 1986), that students react differently to other sections of the population when participating in psychological research. In laboratory studies of altruism, for example, they are more likely to see tasks as a challenge to be overcome individually, and are therefore less likely to ask others for help. This may, therefore, limit the validity of Western models of altruism, based largely on such laboratory studies, particularly when these models are used to contrast with research in non-Western cultures, which generally show a greater willingness to seek and give help.

“The study was unethical...”

The study was unethical in that Zimbardo, by allowing the ‘guards’ to engage in anti-social behaviour against the ‘prisoners’, effectively gave the pursuit of scientific knowledge priority over the welfare of his participants. A consequence of this decision has been a tightening of ethical guidelines to give other psychologists shared responsibility for the research behaviour of their colleagues.

Resources

Textbooks Written Specifically for AQA A Psychology A2

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- Eysenck, M. W. (2003) *Key topics in A2 Psychology*. Hove, Sussex: Psychology Press. ISBN 1-841-69365-0
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- Gross, R. & McIlveen, R. (2001) *Psychology: a new introduction for A2 Level*. London: Hodder & Stoughton. ISBN 0-340-80022-4. [Also published in *Psychology: A New Introduction*. (2nd Edition). (2000) London: Hodder & Stoughton. ISBN 0-340-77689-7]
- Moxon, D., Brewer, K. & Emmerson, P. (2003) *Psychology AS for AQA A: Student book and CD Rom*. Heineman. ISBN 0-435-80672-6
- Rice, D. & Haralambos, M. (Ed) *Psychology in focus: A2 Level*. (2000) Ormskirk, Lancs: Causeway Press. ISBN 1-902796-33-0. [Also published in *Psychology in focus: A Level*. (2001) Ormskirk, Lancs: Causeway Press. ISBN 1-902796-05-5]

Student Dictionaries

- Cardwell, M.C. (2003) *The Complete A-Z Psychology Handbook*. (3rd Edition). London: Hodder & Stoughton. ISBN 0-340-87269-1
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- Reber, A.S. & Reber, E. (2001) *The Penguin Dictionary of Psychology*. (3rd Edition). London: Penguin. ISBN 0-14-051451-1
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Teacher Packs

- Hartshill Press publish a range of resource packs for teachers of AQA Psychology specification A. The packs are regularly updated, photocopiable and all content is provided on disk.
- Resource pack for A2 level Psychology (AQA A)* ISBN 1-90084315-3
- Meldrum, C. (2003) *Psychology for AS/A2: Resource file*. ISBN 0-007-17041-6. Collins Educational. Psychology Press. *Resources for teaching AS/A2 Psychology* CD ROM including the *Essential AS Teaching Package* with PowerPoint lectures, AS workbook in pdf format and weekly teaching plan.
- Rolls, G., Banks, A., Munroe, J. & Gross, R. (2002) *Psychology: a new introduction for A2 level: Teacher's Book*. London: Hodder & Stoughton. ISBN 0-340-84743-3

A2 Revision Guides and Exam Questions

Cardwell, M. & Flanagan, C. (2002) *Do brilliantly at A2 Psychology*. London: Collins. ISBN 0-007-12420-1

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Series

Introductory Psychology Series (MacMillan): *a series of books for each module of the AQA Psychology Specification A, by Malim, Birch and Hayward, including:*

- Perspectives in psychology (Wadeley, A. et al (1997) (2nd Edition). ISBN 0-333-67507-X
- Developmental Psychology ISBN 0-333-66959-2
- Social Psychology ISBN 0-333-67048-5
- Biopsychology ISBN 0-333-64613-4
- Individual differences ISBN 0-333-68813-4
- Cognitive processes ISBN 0-333-58811-8
- Research methods and statistics. ISBN 0-333-64439-5

Principles of psychology: A modular introduction: *a series of books again for the modules of the AQA Psychology Specification A, published by Psychology Press:*

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Routledge Modular Psychology Series: *A series of books covering most of the areas on the AQA Psychology Specification A, including:*

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- Classification and diagnosis (ISBN 0-415-23102-7)
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- Debates in Psychology (ISBN 0-415-19269-2)

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- Interpersonal relationships (ISBN 0-415-19624-8)
- Memory and Forgetting (ISBN 0-415-18652-8)
- Perception (ISBN 0-415-19623-X)
- Physiological Basis of Behaviour (ISBN 0-415-18654-4)
- Psychopathology (ISBN 0-415-19271-4)
- Social and personality development (ISBN 0-415-23104-3)
- Social cognition (ISBN 0-415-21705-9)
- Social influences (ISBN 0-415-18659-5)
- Theoretical approaches in Psychology (ISBN 0-415-19108-4)
- Therapeutic Approaches (ISBN 0-415-18871-7)

A2 Books for Each Module

Social Psychology

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- Berk, L. E. (2002) *Child Development*. (4th Edition). Massachusetts: Allyn and Bacon. ISBN 0-205-37243-0
- Shaffer, D.R. (2001) *Developmental psychology* (6th Edition). Wadsworth. ISBN 0-534-57214-6

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- Matlin, M. W. (1996) *The psychology of women*. (3rd Edition). Fort Worth: Harcourt. ISBN 0-15-503008-6

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- Schaie, K. W. & Willis, S. L. (1999) *Adult development and ageing*. (5th Edition.). New York: Harper Collins. ISBN 0-321-04712-5
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Classification and Diagnosis

Brislin, R. (1993) *Understanding culture's influence on behaviour*. Fort Worth: Harcourt. ISBN 0-03-075897-1

Fernando, S. (1991) *Mental health, race and culture*. MacMillan. ISBN 0-333-474767

Lott, B. (1994) *Women's lives*. (2nd Edition). Brooks Cole. ISBN 0-534-15954-0

Psychopathology

Birchwood, M. & Jackson, C. (1999) *Schizophrenia*. Hove: Psychology Press. ISBN 0-86377-553-5

Hamman, C. (1997) *Depression*. Hove: Psychology Press. ISBN 0-86377-802-X

Rachman, S. (1998) *Anxiety*. Hove: Psychology Press. ISBN 0-86377-584-5

Oltmanns, T.F., Neale, J.M. & Davison, G.C. (1999) *Case studies in abnormal psychology*. (5th Edition).

Chichester: John Wiley & Sons. ISBN 0-471-25216-6

Scientific American (1997) *Special Issue: Mysteries of the Mind*. New York: Scientific American.
ISBN 1-048-0943

Treatments

Masson, J. (1989) *Against Therapy*. London: Harper Collins. ISBN 0-000-637387-9

Pilgrim, D. (1997) *Psychotherapy and Society*. London: Sage. ISBN 0-8039-7505-8

Sheldon, B. (1995) *Cognitive-Behavioural Therapy: Research Practice and Philosophy*. London: Routledge.
ISBN 0-415-09374-0

Perspectives

Eysenck, M. W. (1994) *Perspectives on Psychology*. Hove: Psychology Press. ISBN 0-86377-255-2

Wadeley, A. et al (1997) *Perspectives in Psychology*. (2nd Edition). Basingstoke: Macmillan.
ISBN 0-333-67507-X

Issues and Debates

Gross, R. (2003) *Themes, Issues and Debates in Psychology* (2nd Edition). London: Hodder & Stoughton. ISBN 0-340-85784-6

Jones, D., Elcock, J. (2001) *History and theories of psychology: A critical perspective*. Arnold. ISBN 0-340-74117-1

Shirayev, E. & Levy, D. (2001) *Introduction to cross-cultural psychology*. Allyn & Bacon. ISBN 0-205-29566-5

Slife, B. O. & Williams, R. N. (1995) *What's behind the Research? Discovering Hidden Assumptions in the Behavioural Sciences*. Thousand Oaks: Sage. ISBN 0-8039-5863-3

Valentine, E. (1992) *Conceptual issues in psychology*. (2nd Edition). London: Routledge. ISBN 0-415-03925-8

Approaches

Glassman, W. E. (2000) *Approaches to Psychology*. (3rd Edition). Milton Keynes: Open University Press. ISBN 0-335-120545-3

Wadeley, A. et al (1997) *Perspectives in Psychology*. (2nd Edition). Basingstoke: Macmillan. ISBN 0-333-67507-X

Coursework

Introduction

The specification states that A2 coursework may be drawn from any content area of the AS or A2 specification. Candidates are required to submit **one** piece of coursework. Data **can** be **collected and analysed** in groups of **four candidates or fewer**. The write-up must be the independent work of the candidate. The method used must be drawn from those listed in the specification, which are: laboratory, field and natural experiments; surveys, observational studies and correlation research. Content analysis will also be accepted. The results **must be analysed using inferential statistics**, possible tests include: Chi-square, the Binomial Sign Test, the Mann-Whitney U Test, Wilcoxon's Matched Pairs and Spearman's Rho, although it must be stressed that the use of any appropriate test is acceptable.

Coursework can be conducted at any time after the AS examinations have been taken. Centres whose students return to study after the AS exams may find the end of the summer term is a good time but this will not be appropriate for all centres. Some centres may prefer to use topics from the A2 specification and thus find it more appropriate to conduct coursework in the autumn or spring term of the second year.

Selecting a Coursework Topic

Some possible coursework topics are listed on p96 but please note that these are merely *suggested* topics and are in no way prescriptive. When staff and students are considering the choice of topic the following points should be remembered:

- Students should select an area that they understand well and find of interest.
- The topic chosen should be one for which they have access to previous relevant research.
- Remember that this is a *small* study. A well-written report of a simple investigation can gain an A grade.
- The way in which results will be analysed should be considered before data is collected.
- The Project Brief should be completed after the topic has been selected but before the data is collected. Sensible consideration of the questions on this should aid good design and ethical practice.

Ethical Acceptability of Coursework

It is the teacher's responsibility to supervise the coursework carried out by his/her candidates, and to ensure that it follows the ethical guidelines laid down by appropriate professional bodies such as the British Psychological Society (BPS) ([Hyper-link to BPS website](#)) and the Association for the Teaching of Psychology (ATP) ([Hyper-link to ATP website](#)) **AQA reserves the right to refuse to mark coursework which contravenes the ethical guidelines/legal requirements.**

Teachers are no doubt aware from publicity surrounding issues such as police checks on those who work with children, and the issue of parental permission to photograph children even in a school setting, that this area is becoming more and more fraught with difficulties. It should be noted that the BPS ethical guidelines cover participants up to the age of 16 and the Children's Act covers those up to 18.

If a centre decides to allow such coursework teachers should consider the following:

- Candidates should obtain **parental written consent** before collecting data. In future, evidence of such parental consent should be included with the coursework for all children who have taken part, but without infringing confidentiality – children and parents names should not appear in the report.
- No photographs of children should be included with coursework, unless it is accompanied by written parental consent.
- Centres are also reminded that the 1989 Children’s Act may be relevant to coursework research as well as the BPS Guidelines.
- If school children under the age of 16 are used the problem may arise as to whether or not researchers should be police checked. This should be discussed with the teacher of the children and the headteacher. It must be ensured that students are not left alone with children.

Other issues arise if students propose work on animals in coursework.

- Animals should be used only in their natural environment and only for naturalistic observation. There must be no discomfort to the animal involved. Refer to the BPS Guidelines.

Please ensure that you read an up to date copy of the BPS Guidelines (available from AQA Subject Department). If you have any doubts concerning the ethical acceptability of coursework, you are advised to consult your Coursework Adviser.

Annotation of Coursework

It is a Code of Practice requirement that coursework should be annotated to show how marks have been awarded. Centres should indicate in the margin of the report the section of the mark scheme that is being credited i.e. C1, C2, F1, F2 etc. However, in the case of the AQA Psychology Specification A mark scheme it may be obvious which section is being credited, for example it is clear that the Abstract or Summary is B.

The *minimum* requirement is that centres must indicate where C2, F1, F2, F3 and F4 have been credited. They should also indicate where marks have been awarded in unconventional places. For example it may be that the hypothesis is only clearly stated in the Discussion and has been credited there. It would then be necessary to annotate the work C3 in the margin at that point.

Discussion of the Criteria in the Mark Scheme

In the following sections the criteria laid down in the mark scheme for each section of the coursework will be discussed and an example which would gain full marks is given.

The Project Brief

Candidates are asked to complete a Project Brief before they begin data collection.

The Project Brief has two functions:

- It enables the teacher to check that the study is realistically planned and does not breach ethical guidelines.
- The inclusion in the Project Brief of material which would not normally be found in a journal article (such as the advantages and disadvantages of the method used, choice of controls, etc.) means that this material does not have to be included in the report itself. Thus the style of the report write-up can be more typical of a Higher Education report.

The Project Brief Proposal form can be found on the AQA website at www.aqa.org.uk/admin/procedures. (*Hyper-link to Project Brief Form*). This form may be photocopied. The exact design may be modified but the final version should not be longer than two sides.



PROJECT BRIEF PROPOSAL FORM

2004

GCE A2 Psychology A Unit 6 (PYA6)

Centre name:

Centre no:

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Candidate name:

Candidate no:

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Title of work:

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12 marks in total

PB1: Identify the aim of the research and state the experimental/alternative hypotheses.

Aim: To see whether mature women still have negative body images and to compare body image in seventeen-year-olds and forty-year-olds.

Hypothesis: Ratings awarded on a body scale by seventeen-year-old girls show they are more dissatisfied with their bodies than those awarded by forty-year-old women.

(credited in the report mark scheme)

PB2: Explain why a directional or a non-directional experimental/alternative hypothesis has been selected.

A directional hypothesis has been chosen as the previous research of Lamb suggests that younger people are more dissatisfied with body image than older people.

The choice of hypothesis should be explained with reference to background research. *(1 mark)*

PB3: Identify the chosen research method (experimental, quasi-experimental, natural experiment, survey, observation, content analysis or correlational research) and, if appropriate, the design used.

I have chosen to conduct a survey. I am comparing two different age groups and so I shall be using an independent measures design.

If reference to both method used and design is appropriate both need to be included for 1 mark. *(1 mark)*

PB4: Identify the advantages and disadvantages of the chosen research method.

Advantages: The use of a survey on body shape means that it is relatively quick to test a large sample. Another advantage is that it is easy to ensure that the procedures and instructions used are the same for all participants.

Disadvantages: Participants may give answers they believe are socially desirable rather than their real beliefs. Thus they may not want to claim to be really slim as they may think this seem conceited.

If people are in a hurry they may rush their answers and not look at the body shapes carefully.

At least one clearly explained advantage and one disadvantage relevant to the particular study need to be given for 2 marks. *(2 marks)*

Project Brief Form continues overleaf

PB5: Identify potential sources of bias in the investigation and any possible confounding variables.

Potential biases include researched influence. Participants may pick up cues as how they are expected to reply and feel the need to conform to this. Participants may not give a truthful response as they may not want to seem over confident. Thus they might say they are fatter than they really think they are as they don't want to be seen to think of themselves as slim and beautiful.

The wording of the instructions could cause inaccuracies as it may lead the participants to interpret the instructions differently from other participants.

Confounding variables could occur if people are tested in different places.

To gain marks answers to PB5 should be specific to the study being planned and not be just of a general nature. (2 marks)

PB6: Explain what procedures will be adopted to deal with these.

I shall attempt to overcome researcher influence by behaving in the same way with all participants and by making sure that the situation is as natural as is possible and participants are relaxed. I will reduce the possibilities of demand characteristics by making the research as natural as possible by carefully wording the instructions which are shown to the participants. The same set of instructions will be given to both groups so that there is no variation. The instructions will be checked with a pilot group to make sure they are clear.

All the participants will be tested in the same place in the daytime so confounding variables will be controlled as far as possible.

To gain marks the procedures outlined in PB6 should address the issues raised in PB5 and should be relevant to the study being planned. (2 marks)

PB7: Select an appropriate level of statistical significance to be reached before the experimental/alternative hypothesis will be retained.

The level of statistical significance that I shall be working to is 0.05.

Explanation of the reasons for selecting the chosen level of significance are not requested. (1 mark)

PB8: Identify any relevant ethical issues and identify the steps to be taken to deal with these.

There is some deception in this study as participants are not being told exactly what the actual hypothesis is. This means that people have not given full informed consent but I will hopefully be able to deal with this by fully debriefing my participants at the end of the study. The study was described to three people before I began and all said they would be happy with it.

I will ensure that people realise they have the right to withdraw at any time and, after the debrief, I will explain again that they can withdraw their results. All results will be kept confidential with no names on any answer sheets. All participants are over the age of 16 so I do not need to obtain parental consent.

The task should not be stressful and there is no risk involved, but I will observe the participants carefully and if any seem distressed remind them that they can stop.

A full discussion of the ethical code should be given plus discussion of the steps that will be taken to deal with any ethical issues. If issues do not arise (as could be the case with a content analysis) the candidate should explain why the ethical issues did not give rise for concern. (3 marks)

Total mark (12)	
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Candidates are reminded that, in order to fulfil the requirements of the specification, they must collect, pool and analyse their data individually or in groups of four or fewer.

They are also reminded that the study described in the Project Brief must be the one submitted for the coursework report.

Writing up the Practical

The report should follow a similar format to a journal article. The total length of the report should be approximately 2000-2500 words (excluding tables, figures and appendices). It is recognised that the length of a good report can vary depending on factors such as complexity of research and the number of previous studies, but a maximum of 2500 words [+ or – 10%] should be borne in mind.

It is recommended that the following divisions be used:

- Title
- Abstract
- Introduction
- Aims
- Hypothesis[es]
- Method [subdivided into Design/ Participants/ Materials/ Procedure]
- Results
- Discussion
- References
- Appendices

Title

This should give the reader a good idea what the study is about: not too long and not too vague.

E.g.

'An investigation into the effects of deep and shallow processing on memory for words.'

Abstract

The purpose of the Abstract is to summarise the bare essentials of the study so that the reader can discover quickly the purpose of the research, what was done and what was found. It should present details of the aims, hypothesis(es), method used, participants, findings and conclusions.

An example of an **Abstract** which would be awarded 3 marks follows:

The aim of the research was to repeat Bower's study which found that photographs of deep processed faces are remembered better than photographs of shallow processed faces.

An opportunity sample of 20 16-18 year olds were tested individually in an empty classroom. Each participant was shown 20 photographs of faces one at a time and asked a deep processing question (Does this person remind you of anyone you know?) or a shallow processing question (Is this a man or a woman?). Two days later they were shown the 20 photographs again mixed with another 20 similar pictures. They were asked to identify the photographs seen before.

A Wilcoxon Matched Pairs test was used to analyse the results.

Observed value of $T = 5$; Critical value at $p < 0.05$ [one tailed] for $N = 20$ is 60.

Thus the experimental hypothesis (that participants would recall more deep processed faces than shallow processed faces) was accepted.

It was concluded that the idea that deep processing aids memory was supported.

After reading the Abstract the reader should know:

- What the aim was.
- What the hypothesis was.
- What was actually done.
- Who the participants were.
- Where they were studied.
- What was found.
- What conclusions were drawn.

A word length around about 150 words (+ or – 10%) should be sufficient.

Introduction

The Introduction should provide sufficient background information so that the derivation of the hypothesis is evident.

- It should begin with a **brief** general introduction to the research area. Please note that this is an introduction to the specific study not a general essay. Material should not be included which is not directly relevant.
- **Specific and relevant** theories and/or research studies should then be described.
- Candidates should then explain how their idea for the coursework was derived from this previous research – thus leading logically into the aims and hypothesis(es).

Relevant critical comments on previous research may be included but candidates should take care that their aims follow logically from the literature review. If the research has been completely discredited why are they repeating it?

Remember that all studies included in the Introduction should be referenced at the end of the report in such a way that the reader could find the original study or a detailed account of it.

An example of an Introduction which would be awarded 5 marks follows. It is difficult to be precise as to how long an Introduction should be as this varies with the topic selected but 600 - 750 words should suffice. If there is only one relevant research study to describe around 500 words may well be sufficient for an A grade piece of work.

Introduction

One argument that has arisen from research into people with eating disorders such as anorexia and bulimia is that they have distorted images of themselves and are not content with their weight. The cognitive approach to eating disorders recognises these distorted views about body shape and weight and calls them cognitive biases. The cognitive theory suggests sufferers of eating disorders have body distortion and it is known that most patients with anorexia and bulimia have strong cognitive biases that, for example, lead them to overestimate their body size.

Garfinkel and Garner (1982) researched distortions in body image and found that sufferers of anorexia nervosa have a distorted image of their own body, seeing themselves as heavier than they are. Garfinkel and Garner gave anorexic and control participants a device that allowed them to adjust someone's photograph to between –20 percent and +20 percent of the photograph's actual width. They found that an anorexic was more likely to adjust a picture of herself so that it was larger than actual size but had no tendency to distort the sizes of other people.

Cooper and Taylor (1988) also found that, although sufferers of bulimia nervosa are not typically overweight, they usually show a substantial discrepancy between their estimation of their actual body size and their desired body size.

However, what is not certain is whether these cognitive biases exist before the onset of eating disorders and so may influence their development, or whether they only develop after the onset, in which case they cannot be a causal factor. Do similar distortions in body image occur in the general population?

Other psychologists blame the media and Western society that places a high value on slim female appearance. This argument is supported by the fact that eating disorders are considerably more common in Western than in non-Western society, as found by Cooper in 1994. The media and modelling can explain many features of eating disorders, for example the increased prevalence in recent years, the higher rates in Western society, and age and gender differences. However, a problem is that a majority of the population who are exposed to these cultural pressures do not develop eating disorders. It is possible, however, that people's own body image is still affected by media pressures.

Research has been conducted on the general population to see whether gender differences in body image occur there and whether perceptions of body shape are distorted amongst people with no history of eating disorders.

Fallon and Rozin (1985) investigated sex differences in perceptions of desirable body shape. They used a scale of nine figure drawings that went from 1-9 (1 being the thinnest). The participants were asked to indicate on the scale the figure that was closest to their current figure (current), that they would like to look like (ideal), that they thought would be most attractive to the opposite sex (attractive) and that of the opposite sex that they found the most attractive (other attractive).

Fallon and Rozin found differences in perception of current body shape and ideal body shape, especially in women. Their participants were not asked whether or not they had an eating disorder but Fallon and Rozin concluded that the sex differences are probably related to the greater incidence of dieting, anorexia and bulimia among American women than among American men. They found that, on average, women rated their current figure as fatter than their ideal figure and also fatter than the figure they expected men to choose as attractive. In reality, they found the female figure preferred by men is larger than women think. They also found men have very similar current and ideal figures with the ideal being very slightly larger. The male figure that the men rated as most attractive to females was larger than the actual figure preferred by women.

These results indicate that a difference in perceptions of body shape does exist in men and women and supports the idea that females in the general population are dissatisfied with their body image.

In 1959 Calden, Lundy and Schlafer found that women are generally more dissatisfied with their physical appearance than men and that the most marked difference in body-image perceptions between the sexes is dissatisfaction with weight.

Gray (1977) found similar results to Fallon and Rozin for women: that females are more likely to judge themselves as overweight when by objective standards they are not. However, in contrast to Fallon and Rozin, Gray found males were significantly more likely to see themselves as underweight with respect to objective standards. These findings suggest that both males and females misperceive their weight.

Aims & Hypothesis

The review of the psychological literature given in the Introduction should lead logically into the aims. A paragraph should be written explaining what the student plans to investigate and how this idea was derived from the previous research. This should lead logically into a statement of the hypothesis(es).

Please note that there is some controversy as to whether it is appropriate to include a null hypothesis at this point and so AQA will accept *either* a clear, precise and operationalised experimental/alternative hypothesis *or* both this and a null hypothesis according to the centre's policy. It is not necessary to explain why a directional or non-directional hypothesis has been selected as this is included in the Project Brief.

It is very important that the hypothesis is worded precisely (sometimes called operationalised). A hypothesis such as '*Younger people have better memories than older people*' is too imprecise. What age groups are being tested? What test of memory is being used? Is STM or LTM being tested? How is 'better' being measured?

The Aims and Hypotheses which followed the above Introduction are given below. They were awarded 3 for C2 and 2 for C3. It should be noted, however, that the whole introduction logically leads to the statement of hypotheses and that this is taken into account when awarding C2 marks.

Aims

It seems from this research that there is distortion of perception of body shape in the general population – especially in females. However, the above research was conducted around 20 years ago on American undergraduates. The following study aims to find out if these body distortions exist today in 16-18 year old female English students. It will investigate the relationship between perceived body size and ideal body size in females with no history of eating disorders. After looking at research in this area, especially investigations by Fallon and Rozin (1985) and Gray (1977) the following hypotheses have been drawn up.

Alternative Hypotheses

The perceived current body size that 16-18 year-old female students select on a body shape scale is greater than the ideal body size that they select.

Null Hypotheses

There is no difference between the perceived current body size of 16-18 year-old female students and their ideal body size as selected on a body shape scale.

Candidates should ensure that the hypothesis(es) is unambiguous and understandable to someone who has not yet read the rest of the report.

Method

This is typically divided into subsections:

Design

Participants

Apparatus/ Materials

Procedure.

Design

This should include:

- Choice of method. e.g. field experiment, naturalistic observation, etc.
- Choice of experimental design (if appropriate) e.g. repeated measures.
- Choice of observational techniques (if appropriate) e.g. time sampling.
- Identification of IV and DV (where appropriate).
- If it involved correlation which variables were being related with each other?
- Methods used to control extraneous variables e.g. use of standardised instructions, counterbalancing, single blind condition, etc.
- Ethical considerations (although it is not strictly necessary to include discussion of ethical issues in 'Design' it may be advantageous to encourage candidates to think about these issues again after they have actually conducted the research).

Participants

Full details of:

- The target population, described in terms such as age, gender or any other relevant variables.
- The sampling method used.
- The actual sample.
- How participants were assigned to conditions.
- Details of who was conducting the research, described in terms of age; gender or any other relevant variables.

Apparatus/Materials

A description of all the apparatus and materials used.

The source of any questionnaires or scales used should be given and scoring procedures explained. Examples and answers should be given in the Appendix.

Copies of word lists, questionnaires, etc. should be placed in appendices.

Candidates should remember to include mark schemes for any tests or questionnaires.

Procedures

These should include a description of the steps taken in the research in sufficient detail that someone unfamiliar with the work could repeat the study. This should include where the research was undertaken, the instructions given to participants, exactly what was done, etc. Details of what was said may be placed in an appendix. Students should ensure that they include details of control procedures already mentioned, such as how counterbalancing was achieved, how a single or double blind condition was achieved, how extraneous variables were controlled, etc.

An easy way to check that all necessary information is included is to give the procedure to someone else and ask them if they could duplicate the research.

An example is given below of a Method which would receive full marks.

Some centres may query the use of the first person but, as some journals are now publishing articles using this style, AQA will not penalise the use of 'I' or 'We'.

Method

Design: The method used was the experimental method with an independent groups design. The independent variable was whether or not there was a missing dot in the dot-to-dot given to the participant and the dependant variable was the change in the pulse rates of the participants. Many things were controlled in my experiment. Standardised instructions were used, (see appendix). The room where the experiment was being carried out was always the same and the amount of time the participants had to complete the dot-to-dot was always the same. The double blind technique was used when giving the participants the dot-to-dots (I did not look to see which I was giving them), so that I would not be biased when taking the pulse rates and evaluation apprehension would not occur. To try to deal with ethical issues the participants were debriefed at the end of the experiment and given the right to withdraw their results.

Participants: 20 participants aged from 16 to 18, both males and females, were used and they were all students at ***** College. Opportunity sampling was used and I used lunchtimes to find and test people. Participants were randomly allocated to the two conditions by shuffling the complete and incomplete dot-to-dots up and giving the participants the next one on the pile. The researcher was a 17 year old female sixth former.

Materials used:

- Dot-to-dots. These were found on the internet. I chose one that was not too obvious and easy, but would not take too long to complete. It was the outline of a frog. I then used 'paint art' to delete one of the dots on the puzzle. I chose dot 88 near to the end of the picture, so that the participant would have little time left to complete the puzzle and win a 'prize' and therefore should feel under stress. I printed 10 of each dot-to-dot. (See appendix for copies.)
- Stop watch
- Sweets (as prizes)

Procedure:

- After choosing the dot to dot I tested the completed one on 4 participants to get an average amount of time that the puzzle took to complete. It came out as one minute. This would be the time limit for the experiment.
- During lunchtimes at school I used an empty, quiet room and brought one participant in at a time (by opportunity sampling). They were seated at a table and given the standardised instructions to read (see appendix).
- Their pulse was taken for 10 seconds and this was recorded.
- They were then given the next dot-to-dot on the pile to complete. It was double blind so I didn't know which one they had. They were told to begin and the stopwatch was started. They were given a minute to complete it. If they had not finished after that minute they were stopped.
- Their pulse was taken for another 10 seconds and this was again recorded. It was also recorded whether the puzzle was a 'complete dot' or 'missing dot' one.
- I then debriefed the participant and gave them the right to withdraw their results.

Results Section

The data collected and the results of statistical testing should be summarised in the main text.

- All raw data should be included in Appendices. This raw data should be clearly presented in a readable form with suitable labeling to enable the reader to understand what is being shown.
- If a computer program has been used summary tables and graphs should still be included in the body of the report and raw data and print outs of calculations should be included in the appendices.

Descriptive Statistics

Descriptive statistics make up an important part of the Results. Measures of central tendency and spread plus graphs help students to gain a 'feel' for the data and an understanding of the results that have been obtained.

- If data at the nominal level of measurement has been collected a simple summary table should be included giving the totals in each cell. (If the data is nominal it is not possible to calculate means, medians, range, etc.)
- For data at the ordinal or interval levels of measurement medians/ means should be given plus ranges/ standard deviations as appropriate.
- One or two well-chosen graphs which illustrate the data collected clearly should be included and should be placed in the main Results section not in the Appendices. Well-presented, hand-drawn graphs are acceptable even if the rest of the coursework has been word-processed.
- Special care should be taken that all tables and graphs are fully labelled.

Centres may encourage students to add one or two sentences under tables or graphs explaining what the descriptive statistics indicate.

Other centres may prefer that such description be in the Discussion section.

AQA will accept either approach but both should be credited in F1.

Inferential Statistics

The use of inferential statistics is a requirement of the specification and this section should contain the following information:

- A statement of the test to be used.
e.g. The chi-square test was used to analyse the results.
- Justification of the choice of inferential test with reference to whether the data is related or independent, the level of measurement of the data collected and whether the hypothesis is testing for difference, correlation or association. Levels of measurement should be fully explained.
e.g. This test was suitable as the data was independent as each participants score could only fall in one cell. Also data was at the nominal level of measurement as it was in the form of categories and the hypothesis was that there would be an association between the two variables.
- The calculated value of the test; the degrees of freedom/ number of participants or pairs/ etc.; the relevant critical value; whether the test was one tailed or two tailed.
e.g. Chi square = 2.99 df = 1 Critical value at $p < 0.05$ [two tailed] = 3.84
- An explanation of which hypothesis was retained or rejected.
e.g. As the calculated value of Chi-Square was less than the critical value the null hypothesis was retained.

When centres are allocating E1 and E2 marks they may find it useful to break down the criteria into separate sections.

The criteria for 4 marks for E1 can be broken down into:

- The selection of descriptive techniques is appropriate.
- The application of descriptive techniques is appropriate.
- The selection of an inferential test is appropriate.
- The application of an inferential test is appropriate.
- The use of any inferential test was justified with full reference to the data collected.
- An appropriate level of statistical significance was applied.
- A full explanation of the actual level of significance reached was provided.

The criteria for 4 marks for E2 can be broken down into:

- Descriptive statistics were presented precisely and clearly.
- Inferential statistics were presented precisely and clearly.
- Presentation of raw data in an Appendix was clear.
- Presentation of calculations in an Appendix was clear.

An example of the Results section related to the Method section on pages 84 & 85 is given below. This Results section was given full marks for E1 and E2.

It should be noted that there are many different ways of presenting results and the particular style of this student is not prescriptive.

The section should, however, be 'precise and clear' to gain full marks.

Results

A Summary Table Of Changes in Participants' Pulse Rates measured over 10seconds before and after puzzle completion

	Dot missing	Not missing
Mean	+1.7	-0.1
Median	+2	0
Range	4	2

The mean and median show that when there is a dot missing, generally the pulse increases, and when there isn't one missing, it stays pretty much the same. The range shows that there was more of a spread in the pulse rate changes with the dot missing than not missing.

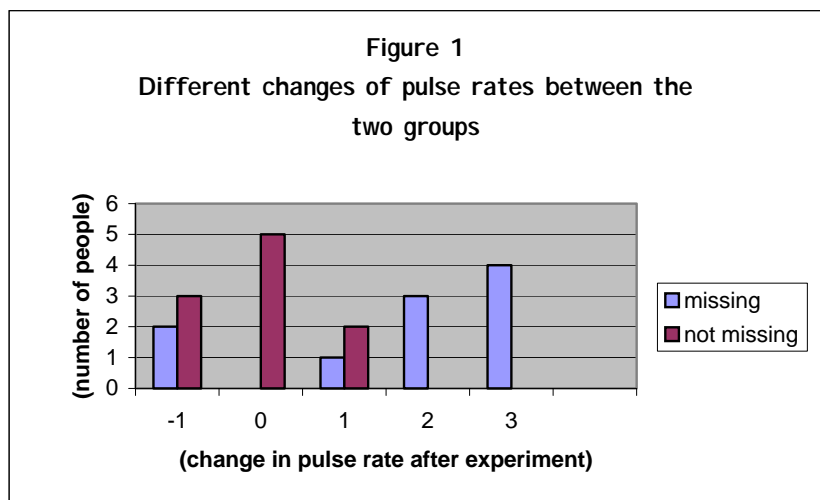


Figure 1 shows the differences in changes of pulse rates between those who had the puzzle with a missing dot and those that didn't. It shows that the larger increases in pulse rate after the experiment belonged to those who had the dot missing, therefore the stress.

From the 10 who attempted the incomplete puzzle 8 had increased pulse rate, no one had no change in pulse rate but 2 people's pulse rates did drop.

From the 10 participants who attempted the complete puzzle 2 had increased pulse rate, 5 people experienced no change in pulse rate, and 3 people's decreased.

Treatment of Results

I used the Mann Whitney U Test. I chose this statistical test because it is used in independent groups designs (like mine is) and to show if there is a significant difference between the results of two groups. The data collected could be treated as ordinal (i.e. could be ranked) and thus a non-parametric test could be used.

The critical value of U at $p < 0.05$ (one tailed) for $N_1 = 10$ & $N_2 = 10$ is 27

The critical value at $p < 0.01$ (one tailed) = 19

I calculated that my result was $U = 18$

The observed value of U must be equal or less than the critical values to reach that level of significance. As 18 is less than both 19 and 27 this shows that my result was significant and I can accept the experimental hypothesis. (For the raw data and workings out of this stats test, see the appendix.)

Inferential Statistics

It is recognised that, very occasionally, when the descriptive statistics are examined it may be clear that it is inappropriate to run an inferential test. A case where this might arise would be if a directional hypothesis was selected but the means/ medians indicate that the results lie in the ***opposite direction*** to the hypothesis.

E.g. Hypothesis: Participant's estimates of their father's IQ are greater than those of their mother's IQ.
Mean estimated IQ of fathers = 100 Mean estimated IQ of mothers = 110

In such a case candidates should fully explain why an inferential test is not appropriate and explain which test would have been selected (and why) if the data had been different. If centres are in doubt the coursework adviser should be consulted.

Discussion

This section has the greatest number of marks allocated.

There are four sections to the mark schemes:

- Explanation of findings.
- Relationship to background research.
- Limitations and modifications.
- Implications and ideas for future research.

Students may find it advantageous to structure their report around these subsections.

Explanation of Findings

In the last section students should have given the results in terms of descriptive and inferential statistics. In the Discussion they should explain these results in words. They should state what was found and relate the findings to their initial aims and hypotheses. They may also have additional findings to report such as observations made when collecting the data, things said by participants, etc. Some students may chose to comment on summary tables and graphs in the Results section itself. This is quite acceptable and any pertinent comments should be credited in F1.

Relationship to Background Research

This section is the student's opportunity to explain why they think their results occurred with reference to other research. They should discuss the outcome of the study in terms of relevant background literature such as theories and previous research. In the Introduction the aims and hypotheses should have grown logically from the review of relevant literature. Now the process is reversed and the current findings should be tied into the previously reviewed work.

Students should not just list previous work here but should explain whether their own findings agree or disagree with the earlier work. If the results agree then the discussion will be brief although candidates might indicate the ways in which their own study differs. If the results are contrary to previous research candidates should look for alternative explanations. This may, on occasion, mean introducing new material and ideas.

Limitations and Modifications

Even a well designed study is likely to have some flaws and candidates should use this section to consider how factors such as experimental treatments, measurement scales used, sampling, controls, procedures and/or statistical treatments might have been improved. Suggested alterations which are still investigating the same area should be credited as modifications and awarded marks in this sub-section.

Implications and Suggestions for Future Research

The implications of the findings for everyday life and/or psychological theory should be considered. One or two ideas for follow up research should be included. Follow up ideas should take the topic under investigation a step forwards from the current study and care should be taken that ideas are credited as either a 'modification' in F3 or an 'idea for future research' in F4 but not as both.

Conclusion

It is common practice to finish with a statement of the findings and key points of the study in no more than 3 or 4 sentences.

An Example of a Discussion

The Discussion below follows the Introduction given on page 80. The discussion would be awarded full marks in all the subsections.

Discussion

The findings of this investigation found a difference in perceived and ideal body sizes of 16-18 year old female students. Overall females wanted to be thinner than they think they are. The Wilcoxon Matched Pairs test was significant at the 0.05 level and the result was supported by the graphs. There was only one case in which a participant chose an ideal shape larger than her current shape. Thus the alternative hypothesis will be retained. **F1***

"The perceived current body size of 16-18 year-old female students is greater than their ideal body size."

* Commentary on the descriptive statistics in Results may also be creditworthy under F1.

There has been much research into the ideal and perceived body weight of females. Since early research such as Calden, Lundy and Schlafer [1959] and Fallon and Rozin [1985] it has been found that women were more dissatisfied with their body shape than were men. This study suggests that dissatisfaction amongst women is as high as ever. **F2**

The dissatisfaction with weight could be influenced by modelling. Western society places a high value on slim female appearance. These social pressures could cause young people to be unhappy with their weight. Changing attitudes of society from the preferred curvaceous 'hour-glass figure' of Marilyn Monroe in the 1950s to the currently popular 'waif-like' shape could contribute to the increase in prevalence of eating disorders and discontent over body size. **F2**

Alternatively, the results could be explained in terms of cognitive biases that cause females to overestimate their body size. It is possible that the 16 -18 year olds questioned were over estimating their current size in their genuine perceptions of their own weight. This would support the idea that over estimation of body size is common in all females and is in line with the research of Fallon and Rozin in 1985 who found that distorted beliefs about body size are found even in those not suffering from an eating disorder. **F2**

One limitation of the study was the participant sample used. Opportunity sampling from a sixth form target population was used and so the sample contained many biases like age, level of intelligence and social economic background. However, the hypotheses only related the results to 16-18 year old students and so are not claiming that they are true for all ages and social groups. **F3**

Another flaw is that the researchers knew the participants. This may have led the participants to be influenced by social desirability and put what they thought was the 'normal' answer and not what they actually think. Use of a different target population and sampling technique could tackle this problem. **F3**

There may have also been the problem of demand characteristics. Perceived and ideal body sizes, and eating disorders are popular and well-covered issues. Participants, therefore, may have known what results were expected and answered accordingly – whether agreeing with what they thought was 'normal' so as not to look 'wrong' or disagreeing in order to disrupt the results. **F3**

A design flaw of this investigation is in the scale used. The scale only went from 2-5 instead of 1-9 as with the original scale used by Fallon and Rozin. This was because the full scale (from extremely thin to extremely fat) was not available and, as the participants were all of 'normal' size, the shorter scale was felt to be adequate. However, this limited the data and forced the participants to put their answers within a more limited range. If repeated the more extensive scale would be used. **F3**

There are many follow up studies that could be conducted. People from a different age group or occupation could be studied. A relevant age group would be 19-25 because this is also a vulnerable age group to eating disorders, particularly bulimia nervosa. It would also be interesting to investigate a younger age group of 8-12 to see if the same tendencies are found. Males' perception of their body weight could be studied. Perhaps the current emphasis on 'working out' and the 'six pack' body will influence men's perceptions of their own and ideal body shapes. **F4**

Alternatively this investigation could be extended to ask people **why** they want to be a different size. It would be very useful to collect qualitative data from open-ended interviews to help with the interpretation of the results. **F4**

The results of this investigation have implications for psychological theory. As already discussed dissatisfaction weight could be explained by a number of psychological models such as errors in the perception of your own body weight or modelling. These findings also have implications for every day life. They draw attention to the fact that many 16-18 year old students are discontented with their weight and so, as a society, we should encourage people to be happy with who they are and what they look like, focusing more on personality and not appearance. The media should be urged to employ many different shapes and sizes of people as models and not constantly promote thin females. **F4**

In conclusion, this investigation has found that on average 16-18 year old females have different perceived and ideal body sizes. Reasons for this difference could be explained by various psychological models but it is probable that the dissatisfaction with weight is based on a combination of influences from each of the psychological explanations.

References

In this section students are not asked to give a Bibliography (a list of the books that they used) but rather to reference the studies that they have mentioned in their report.

The criteria that are used in marking this section are:

- Could the reader go to a library and, using the reference given, find the original journal article/book or find the section in a textbook that the candidate used in writing the coursework? The candidate should either give the reference to the original, following the standard conventions (as used in textbooks), or quote the textbooks used plus page numbers used. (Please note that page numbers are necessary as there may be several references to the psychologist in question in a textbook.)

or

Could the reader go to the Internet and, using the reference given, find the web site / web page that the candidate used in writing the coursework?

- Are the references in alphabetical order?
- Are all the studies mentioned in the report included?

Referencing from a Journal Article/Book

If the candidate chooses to give the reference to the original the standard convention for a journal article is:

Author	Date	Title of article	Journal	Volume	Page numbers
--------	------	------------------	---------	--------	--------------

e.g. Scarr, S. (1998) *American Childcare Today*. *American Psychologist*, 53, 95-108.

If the reference is to a book the reference should include:

Author	Date	Title of book	Publisher
--------	------	---------------	-----------

e.g. Beck, A.T. (1967) *Depression: Causes and Treatment*. University of Philadelphia Press.

Some candidates may chose to give the reference to the pages they used in a textbook (page numbers must be included in this instance).

e.g. Brown, R. and Kulik, J. (1977) in Gross, R., McIlveen, R. and Coolican, H. (2000) *Psychology: a new introduction for AS level*. Hodder and Stoughton. Pages 26-27.

Another acceptable method would be:

Gross, R., McIlveen, R. and Coolican, H. (2000) *Psychology: a new introduction for AS level*. Hodder and Stoughton.

From this book the following studies were obtained:

Asch, S.E. (1951) page 109-112

Sherif, M. (1935) page 109.

Candidates will not be penalised if they include a Bibliography of the books they have used but this is not asked for in the mark scheme, thus will not gain credit.

Referencing from the Internet

If a candidate used a document on the Internet, the following formats should be used:

The date accessed must always be given for web pages.

- A web page with authors:

Author	Date	Title of article/book	Web address	Date accessed
Zimbardo, P.	(1999):	<i>The Stanford Prison Experiment</i>	< http://www.prisonexp.org/ >	Accessed on 16 th October, 2003

- A web page without authors and date:

Title of article	Web address
<i>AQA is an independent company, limited by guarantee, and a charity.</i>	< http://www.aqa.org.uk/over/index.html >
Date accessed	
Accessed on 16 th October, 2003	

- Quoting from the web should also be acknowledged following the procedures above

For example:

The Assessment and Qualifications Alliance (AQA) came into existence in April 2000 following the merger of the Associated Examining Board and the Northern Examinations and Assessment Board and is the largest of the three English unitary awarding bodies. AQA is an independent company, limited by guarantee (registration number 3644723) and a charity (registration number 1073334). Its activities are not for profit and are determined in its Memorandum of Association, which is concerned with the provision of high quality assessments to students (generally in schools and colleges). (AQA website Overview, 2003)

With a corresponding entry in the bibliography:

Title of article	Web address	Date accessed
<i>AQA website Overview (2003):</i>	< http://www.aqa.org.uk/over/index.html >	Accessed on 17 th October, 2003

Appendices

The Appendices will obviously vary but will probably include:

- Examples of materials / questionnaires / etc. used.
- Details of any materials essential for scoring.
- For an observational study or content analysis details which would enable the reader to conduct the observation and replicate the scoring system used.
- Workings out of calculations.

These should all be clearly labelled.

Practical Report Checklist for Candidates

Abstract

- Have you stated what you are studying?
- Have you given your aim/hypothesis?
- Have you described what you did?
- Have you given some details of the participants and where the research was conducted?
- What did you find? Summarise your results.
- What conclusions were drawn?

Introduction, Aims and Hypotheses

- Have you described relevant studies and / or theories?
- Is the literature logically linked to the aims?
- Have you explained how your aims develop from this previous research?
- Are any hypotheses clear and testable?

Method

Design

- Have you stated the method used?
- If appropriate have you stated the IV & DV?
- If you are conducting non-experimental research (such as an observation or survey) have you explained the methods used?
- Have you explained any controls used?
- Have you discussed any relevant ethical considerations?

Participants

- Have you described the participants and the population from which they were drawn?
- Have you explained the sampling method used?
- Have you explained who the researchers were?

Materials

- Have you explained what you used and where it was obtained?
- Have you included examples of all materials used in the Appendix?
- Have you included answers to any tests or questionnaires and details of scoring systems used?

Procedures

- Have you given the procedures in sufficient detail that someone who knows nothing of the study could replicate it?
- Have you included details of what was said to the participants?

Results

- Have you given a summary table of the data?
- Have you included a neat, well-labelled copy of the raw data in the Appendix?
- Have you included a pictorial representation of the results such as a bar chart, frequency graph, etc?
- Have you labelled everything and given it a title?
- Have you reported which inferential statistical test was used?
- Have you justified the use of this test in terms of the nature of the data, the design and whether you were testing for a difference, an association or a correlation?
- Have you included details of the calculated value, critical value, level of significance, degrees of freedom or number of participants as appropriate and whether the hypothesis was directional (one-tailed) or non-directional (two-tailed)?
- Have you included any calculations in the Appendix?
- Have you stated the conclusion in terms of the hypotheses?

Discussion

- Have you explained in words what the descriptive and inferential statistics show?
- Have you stated the hypothesis that was retained/ accepted?
- Have you explained why you think you got such results?
- Have you compared your results with the research described in the Introduction?
- Have you discussed the limitations of your study? What was right or wrong about your methods and how could they be improved?
- What follow up studies could be done?
- What are the implications of your findings?

References

- Have you included references to all the research mentioned in your report in such a way that the reader could go to a library and find the actual study/ book or a detailed account of it?
- Are references given in a conventional form?

Appendices

- Are these clearly labelled and well laid out?

Finally

- Have you checked your spelling?

Acknowledgement

This section is adapted with kind permission of C Flanagan and Hartshill Press:

Flanagan, C. (1999) *Resource Pack for AS/A Level Psychology Practical*. Hartshill Press. ISBN 1-900-843-17X

A Note to Candidates on Copying

Do not copy directly from books or similar sources. If you wish to quote a passage acknowledge the quote by putting it in quotation marks and giving the reference.

Do not copy from another candidate. Every year people get caught copying when work is moderated and are given 0 for their coursework.

NEVER LEND YOUR WORK TO ANYONE. AQA does not know who wrote the original and who copied so you could both lose all the marks for this module.

Suggested Titles for Coursework

It is the intention of AQA to offer these titles as suggestions for possible coursework topics. The list is in no way intended to be prescriptive.

AS Psychology

Module One:

Cognitive Psychology

- The effect of Chunking on the recall of letters in STM.
- Primacy and Recency effects in STM.
- A study investigating Levels of Processing and their effects on memory.
- The effect of leading questions on memory of a film clip.

Developmental Psychology

This is not a suitable area for coursework because of the nature of the material in the AS specification.

Module Two:

Physiological Psychology

- The effects of a minor stressor such as a missing dot in a dot-to-dot puzzle on pulse rate.
- The relationship between 'hassles' and illness (using questionnaires).

Individual Differences

This is another area where there are many ethical issues and it is probably better to select topics from elsewhere.

Module Three:

Social Psychology

- An observational study on obedience to the law: e.g. people wearing seat belts.
- A conformity study using *written* answers only: e.g. the distance between two cities.

A2 Psychology

Social Psychology

- A questionnaire study on the attribution of causation and the amount of damage.
- Is there a relationship between liking and the familiarity of names?
- Replication of the Matching Hypothesis.
- A content analysis of lonely hearts advertisements.

Cognitive Psychology

There are many possibilities in this area, a few of which are:

- The Stroop effect.
- Work on illusions.
- Replication of Carmichael's work on the effect of labelling on recall.

Developmental Psychology

Please read the notes on work with participants under 16 before considering work from this area. Work on gender and adolescence with over 16's is quite possible, however.

Physiological Psychology

- Temperature changes over 24 hours.
- Hemispherical dominance and the choice of right or left field pictures in right and left handed people.

Resources

- Cardwell, M. & Coolican, H. (2003) *A-Z Psychology Coursework Handbook*. London: Hodder & Stoughton. ISBN 0-340-87260-8
- Harris, P. (1986) *Designing and Reporting Experiments*. Milton Keynes: Open University Press. ISBN 0-335-15334-8
- Flanagan, C. (1998) *Practicals for psychology: A student workbook*. London: Routledge. ISBN 0-416-15774-9
- Foster, J.J. & Parker, I. (1995) *Carrying Out Investigations in Psychology: Methods and Statistics*. Leicester: BPS Books. ISBN 1-85433-170-1
- Harris, P. (1986) *Designing and Reporting Experiments*. Milton Keynes: Open University Press. ISBN 0-335-15334-8
- Hock, R. R. (1992) *Forty studies that changed Psychology*. Englewood Cliffs, NJ: Prentice Hall. ISBN 0-13-327578-7
- Nunn, J. (1998) *Laboratory Psychology: A Beginner's Guide*. Hove: Psychology Press. ISBN 0-86377-711-2

Research Methods and Statistics

- Banister, P., Burman, E., Parker, I., Taylor, M. & Tindall, C. (1994) *Qualitative Methods in Psychology: A Research Guide*. Milton Keynes: Open University Press. ISBN 0-335-19181-9

The following three texts are listed in ascending order of depth of coverage.

Coolican, H. (1994) *Research Methods and Statistics in Psychology*. London: Hodder & Stoughton. ISBN 0-340-60082-9

Coolican, H. (1996) *Introduction to Research Methods and Statistics in Psychology*. (2nd Edition). London: Hodder & Stoughton. ISBN 0-340-67937-9

Coolican, H. (1999) *Research Methods and Statistics*. London: Hodder & Stoughton. ISBN 0-340-74899-0

Dyer, C. (1995) *Beginning Research in Psychology: A Practical Guide to Research Methods and Statistics*. Oxford: Blackwell. ISBN 0-631-18929-7

Searle, A. (1999) *Introducing Research and Data in Psychology*. London: Routledge. ISBN 0-415-18875-X

Appendices

Rules and Regulations

The following are extracts taken from the JCGQ “GCE, VCE and GNVQ: Entry, Aggregation and Certification – Procedures and Rules” www.jcgq.org.uk (*Hyper-link to website*) please refer to original document for further information.

Entries for Individual Units

An entry is required for each unit to be attempted in any given examination series.

Entries for the Qualification

Once the student has gained or has entered for the appropriate units, entry may then be made for the qualification. This is known as ‘cashing in’, and is the indication to AQA that the student wishes to complete the qualification and receive certification.

Cashing in is not automatic. It can only be applied for when the student has entered for or gained the appropriate units for the qualification. Applying to cash in does not indicate entry for any particular unit or combination of units. Specific entries must be made for any units in which the student wishes to be assessed, with a separate entry for the overall qualification.

Cashing in is normally applied for at the same time that entry is made for the student’s final units. It can also be applied for in the period immediately following receipt of unit results, or any subsequent date.

Results

For each unit, grade boundaries are determined at Awarding Meetings using raw marks for the examination paper. These raw mark grade boundaries are then translated onto a uniform mark scale (UMS) which has fixed grade boundaries. A student’s unit results are reported as a mark, using the relevant uniform mark scale.

If a student has applied to ‘cash in’ a qualification result, the result will be reported as a grade which is calculated by adding up the uniform mark for each unit gained. If the student re-sat any unit, it is the mark from the best attempt, which will count towards the final award.

Resits

With effect from 1 January 2004 restrictions on re-sitting units are being removed. Students will therefore, be able to re-take units more than once.

Uniform Mark Scale

Curriculum 2000 saw the introduction of a uniform mark scale for all GCE specifications.

Modular specifications allow candidates to take the unit examinations in different series. Candidates are therefore very likely to have taken the units over a number of examination series. It is possible that the papers for a particular unit are at slightly varying levels of difficulty, so that for example, a mark of 45 in January 2003 represents the same level of achievement as a mark of 48 in summer 2003. It follows that some method must be found of putting the marks from different series on a common, or uniform, scale so that both 45 (from January) and 48 (from summer) have the same value when contributing to an overall grade.

By inter-awarding body agreement, the uniform mark grade boundaries in GCE are always at the following percentages of the maximum uniform mark for the unit or qualification:

A 80% B 70% C 60% D 50% E 40%

Also by inter-awarding body agreement, the maximum uniform mark for an Advanced qualification is 600 and Advanced Subsidiary is 300.

Relationship between Uniform Marks and Grades

A Level Psychology A

	Grade boundaries in terms of uniform marks according to weighting of unit			
Weighting	15%	16.7%	20%	Total subject 100%
Max. UMS	90	100	120	600
A	72	80	96	480
B	63	70	84	420
C	54	60	72	360
D	45	50	60	300
E	36	40	48	240
(N)	27	30	36	-

AS Psychology A

	Grade boundaries in terms of uniform marks according to weighting of unit	
Weighting	33.3%	Total subject 100%
Max. UMS	100	300
A	80	240
B	70	210
C	60	180
D	50	150
E	40	120
(N)	30	-

Setting a Question Paper

The Question Paper Evaluation Committee (QPEC) consists of the chair of examiners, the chief examiner, principal examiners, a reviser, and invited members of the Subject Advisory Committee for Psychology.

The committee meets to consider the draft examination question papers for both the January and summer examination sittings. All QPEC members consider each question and the mark scheme and advise the principal examiners on changes that should be made. The revised papers are then sent to the scrutineer, who reads them as a candidate might and gives further feedback to the principals. The principal examiners make changes as suggested at QPEC and in light of further feedback from the scrutineer.

The principal examiner for each unit and the reviser check the first proofs. Several more checking phases are in place before final approval is given by the chair of examiners and the chief of examiners. Question papers are then printed and are subsequently dispatched to centres.

Setting Grade Boundaries

Once the examination papers have been marked, grade boundaries must be determined to convert a raw mark into a UMS mark and a grade. At grade awarding, the principal examiners, the principal moderator, the chair of examiners and the chief examiner consider the quality of responses from the current cohort of candidates and compare them with archived scripts from the previous year. It is a process that involves a mixture of judgmental decisions and the consideration of statistical data that are available. The positioning of the grade boundaries depends upon the demands of the papers and are likely to vary across every examination session. The awarding committee determines the A and E grade boundaries and the other boundaries are interpolated from these.

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Mark Schemes & Responses

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PYA3**Question 2****Total marks for this question: 30 marks**(a) Outline **two** psychological processes that may be involved in obedience to authority. (3 marks + 3 marks)**Marking criteria**

There are several psychological processes that candidates might offer: the agentic shift (agency theory), binding factors or gradual commitment, socialisation (being exposed to legitimate authority) and individual differences (e.g. the authoritarian personality). Material relating to the resistance of obedience can also be credited, provided that the candidate makes the ‘processes’ involved explicit.

It is not sufficient for a candidate to describe the results of (for example) Milgram’s studies without outlining the psychological processes that may explain these results. ‘Proximity of victim’ and ‘presence of experimenter’ are not processes but situational factors. Some candidates may attempt to offer a factor without explicitly linking it to a process; such an answer would be ‘muddled and flawed’. If they can link it to a process then they can achieve full marks.

Marking allocation

For each outline:

3 marks	Outline description of the psychological process involved in obedience is both accurate and detailed . For example, the candidate may offer a detailed and accurate outline of the nature of gradual commitment.
2 marks	Outline description of the psychological process involved in obedience is limited . It is generally accurate but less detailed . For example, the candidate may offer a less detailed outline of the nature of gradual commitment.
1 mark	Outline description of the psychological process involved in obedience is basic, lacking detail , and may be muddled and/or flawed .
0 marks	Outline description of the psychological process involved in obedience is inappropriate (for example, the candidate may offer an outline description of a process that is more to do with conformity than obedience) or the outline description is incorrect .

(b) Outline the findings of **one** study of minority influence and give **one** criticism of this study.
(3 marks + 3 marks)

Marking criteria

The most likely studies to be offered are those given as examples in the specification (i.e. Moscovici, Clark) although any study that has investigated minority influence would be acceptable. However, the studies of *majority* influence carried out by Asch, Crutchfield and others would not be acceptable here unless they are explicitly interpreted as studies of minority influence and should not receive credit. Zimbardo’s study of conformity to roles is not creditworthy here.

Since the question asks for findings, candidates who offer aims, procedures or conclusions should not receive credit for this material.

The criticism offered will depend on the study chosen. These could include ethical concerns (deception and lack of informed consent); or practical concerns such as a lack of ecological validity.

Marking allocation

For the findings:

3 marks	Outline of the findings is both accurate and detailed . For example, the candidate may offer a detailed and accurate outline of the findings of one of Moscovici’s experiment
2 marks	Outline of the findings is limited . It is generally accurate but less detailed . For example, the candidate may offer a less detailed outline of the findings of one of Moscovici’s experiment.
1 mark	Outline of the findings is basic, lacking detail , and may be muddled and/or flawed .
0 marks	Outline of the findings is inappropriate (for example, the candidate may offer an outline of the procedures) or the outline is incorrect .

For the criticism:

3 marks	The criticism is both accurate and detailed . For example, the candidate may offer a detailed and accurate criticism of one of Moscovici’s experiment.
2 marks	The criticism is generally accurate but less detailed . For example, the candidate may offer a less detailed criticism of one of Moscovici’s experiment.
1 mark	The criticism is basic, lacking detail , and may be muddled and/or flawed .
0 marks	The criticism is inappropriate (for example, the candidate may offer a statement about the conclusions) or the criticism is incorrect .

- (c) “Some of the procedures used by social psychologists such as Asch, Zimbardo and Milgram are ethically questionable.”

Briefly outline some of the procedures used in social influence research (theories **and/or** studies) and evaluate whether these procedures are ethical. *(18 marks)*

Marking criteria

AO1 credit should be given for a description of some of the procedures used in social influence research.

AO2 credit should be given for an evaluation of whether such procedures can be considered ethical. Commentary and analysis are also relevant to **AO2**.

Although the quote directs candidates to consider Asch and Zimbardo, clearly any procedures used in social influence research would be relevant.

Candidates need to consider the ethical issues surrounding the procedures they have outlined. They could do so by using ethical guidelines and considering the extent to which the procedures used broke such codes. They might consider the criticisms of Milgram’s work put forward by Baumrind (i.e. that his procedures violated the ethical guidelines and could not be accepted on ethical grounds). They could consider whether Zimbardo protected his participants sufficiently, even though he obtained informed consent prior to the study. On the other hand, psychologists such as Aronson argued that sometimes psychologists need to consider the wider implications of their research. He argued that the procedures used by psychologists such as Milgram and Zimbardo produced findings that were so important that this outweighed their ethical limitations.

One way to consider whether the procedures are ethical could be to consider the application of the findings. For example, Milgram’s findings being used to excuse the perpetrators of the Holocaust, a criticism made by Mandle (1998).

Candidates may introduce further studies as a form of commentary/evaluation. The degree to which candidates use this material as part of a critical commentary, rather than simply describing alternatives, will constitute the effectiveness of the evaluation and hence the number of marks awarded for AO2. Candidates who offer no commentary may still be judged to have selected appropriate material and thus commentary can be described as ‘just discernible’.

Marking allocation**AO1**

6-5 marks	Outline of a description of procedures used in social influence research is both accurate and detailed . For example, candidates may offer detailed and accurate accounts of research procedures.
4-3 marks	Outline of a description of procedures used in social influence research is limited . It is generally accurate and/or less detailed . For example, the candidate may mention the procedures but not in much detail.
2-1 marks	Outline of a description of procedures used in social influence research is basic, lacking detail , and may be muddled and/or flawed .
0 marks	Outline of procedures used in social influence research is inappropriate (for example, the candidate may describe some theories) or the outline is incorrect .

AO2

12-11 marks	There is an informed commentary on the ethics of social influence research procedures and reasonably thorough analysis of relevant psychological material, which has been used in an effective manner, within the time constraints of answering this part of the question.
10-9 marks	There is a reasonable commentary on the ethics of social influence research procedures and slightly limited analysis of relevant psychological material, which has been used in an effective manner.
8-7 marks	There is a reasonable commentary on the ethics of social influence research procedures but limited analysis of relevant psychological material, which has been used in a reasonably effective manner.
6-5 marks	There is a basic commentary on the ethics of social influence research procedures with limited analysis of relevant psychological material, which has been used in a reasonably effective manner ..
4-3 marks	There is superficial commentary on the ethics of social influence research procedures and rudimentary analysis of relevant psychological material. There is minimal interpretation of the material used.
2-1 marks	Commentary on the ethics of social influence research procedures is just discernible (for example, through appropriate selection of material). Analysis is weak and muddled . The answer may be mainly irrelevant to the problem it addresses.
0 marks	Commentary is absent or wholly irrelevant to the problem it addresses.

Response to Candidate A

(page 18 of main document)

- (a) With obedience an individual will do as a figure of authority wishes as the figure is seen as having more power **[one basic process]** and so must be obeyed. Also the situation may lead to obedience such as being in a prestigious university building. **[1 + 0 marks, situation is not a process]**
- (b) Asch conducted a study using a card with three lines each of a different length. The participants then had a card with one line on it that was the exact same length as the one with three lines on it. Three stooges took part in the experiment. They picked a line out of the three that obviously didn't match up and was wrong. Participants then began to question their answers and many changed their answers even though they were obviously wrong, although there were a few participants who didn't change their answers despite the stooges. The study failed to alter the answers of all the participants, proving that minority influence does not depend on stooges being persistent with their answers. **[Not a study of minority influence despite candidate's attempt to convince us – the stooges were a majority and did not use persuasion = 0 marks]**
- (c) Stanley Milgram conducted an experiment using psychology students at a University. He and the student participants would wire a stooge to a generator (although the generator did not actually give shocks to the stooge). **[AO1 procedures]** Participants and stooges were in separate booths. **[AO1 procedures]** Milgram said that the experiment was to find out the effects of punishment on learning and the stooge would give worse and worse shocks throughout the experiment if something was forgotten. **[weak AO1, aims and procedures]** The participants were asked by Milgram to increase the shocks given to the stooge to dangerous levels, the stooge would scream as the intensity of the shocks increased. **[AO1 procedures]** Many of the participants continued to administer shocks even though there was no sound coming from the stooge's booth. **[Finding]** Many participants protested but were prompted by Milgram to increase the intensity of the shock using sentences such as 'You must complete the experiment' or 'You must continue'. **[AO1 procedures]**

Many of the participants felt they had to continue with the experiment as Milgram was of higher status than themselves and were obedient. **[AO2 comment, could be linked to ethics]** Many were afraid that if they didn't finish the experiment it would affect their grades. **[AO2 comment, again could be linked but weak]** Milgram went against many ethical guidelines. He used gross deception, the participants felt that they could not withdraw from the experiment because of Milgram's status. **[AO2 comments about ethics and link made to procedures to continue]** This experiment could have caused psychological or emotional harm to the participant by thinking they may have seriously hurt someone. **[AO2 comment on ethical issue]** Milgram's study received a large amount of criticism from other psychologists who believed the experiment to be very unethical. **[Weak AO2]** Participants were not debriefed. **[Wrong]**

AO1: Description is accurate but limited. Procedures not described in detail. Closer to bottom band = 3 marks.

AO2: All commentary is weak, but it is more than 'just discernible'. Some of it is almost 'reasonably effective' = 4 marks. Total for part (c) = 7 marks.

Candidate A – Total for question = 8/30 marks, a weak response.

Response to Candidate B

(page 19 of main document)

(a) Agentic state theory: This is when you see yourself as an agent of someone else and you believe they will take responsibility for the consequences so you obey. **[accurate and detailed = 3 marks]**
Buffering: This is when you don't see the consequences of your actions, therefore obedience levels increase. **[accurate but lacks detail, not muddled or flawed = 2 marks]**

(b) Moscovici 'calling a blue slide green'
Findings: - Approximately 8% of participants were influenced by the minority in the consistent group
- Approximately 1% of the participants were influenced by the minority in the inconsistent group
- The control group only had a 0.25% error rate. **[sufficiently accurate and detailed = 3 marks]**
Criticism: It lacks ecological validity because in the real world minority influence is only used in extremely important situations and this isn't. **[not clearly explained and not necessarily correct, ecological validity not explained, shows little understanding = 1 mark]**

(c) A lot of procedures used by social psychologists are said to be unethical but it can be argued that important findings would not have been found if these procedures wouldn't have taken place. **[good AO2 comment, related to procedures as required]** Milgram's study used deception right from the start when the advert said it was a learning and punishment experiment. **[AO1 description of procedure]** Deception was used throughout the experiment. **[brief AO2 comment]** The participants were given orders to administer an electric shock to another man (even though it wasn't real, they thought it was). **[AO1 procedures]** It has been said it was unethical because the participants were obviously stressed and didn't want to carry on. **[AO2 comment]** However Milgram argued that without deceiving them he would never have found these results. **[AO2 counterpoint, evidence of analysis]** Milgram made it more ethical by debriefing them thoroughly afterwards. **[AO2 further counter-arguments]** He also gave them the right to withdraw. **[AO2]** Most participants afterwards said they were glad they took part in this study because they helped find some important findings and found out a little about themselves. **[AO2 counterpoint]** So I believe that Milgram's procedures, even though unethical in places, can be justified. **[AO2 answering the question, based on informed opinion]**

Asch's experiment with the line study was unethical because participants came out humiliated. **[procedures not described though implied]** Asch tried to overcome this by debriefing them afterwards and saying their results were perfectly normal. **[AO2 comment on ethics, not very effective and repeating point made in relation to Milgram]**

Zimbardo's experiment was unethical as he didn't give them protection from harm. **[no procedures to comment on, therefore AO2 not creditworthy beyond 'minimal']**
 I think this experiment was unethical because the findings did not outweigh how unethical the experiment was. **[opinion not supported by information]**

The procedures of studies are only ethical if the value of the findings outweigh the distress caused to the participants. **[AO2 conclusion]**

AO1: Very few procedures, basic = 2 marks

AO2: Reasonably effective though basic = 6 marks. Total for part (c) = 8 marks.

Candidate B – Total for question = 17/30 marks, a good response.

Response to Candidate C

(page 20 of main document)

- (a) It is believed that socialization is a key factor in why people obey. For a society to run smoothly people must obey social norms and rules, therefore people are socialized into acting certain ways and obeying authority. The penalty for disobeying authority can often mean being rejected by society or facing imprisonment. **[accurate and detailed = 3 marks]**

Another psychological process in obeying is the autonomous and Agentic states. The former refers to an individual making their own decisions and acting out of personal direction. The Agentic state refers to acting as an agent of another and following orders, thus removing personal responsibility. **[accurate and detailed = 3 marks]**

- (b) Moscovici (1979) performed a study where subjects were placed among confederates and shown colour slides. They had to say what colour the slide was. In a consistent minority condition, confederates would call out the wrong colour. In these trials, 10% of subjects conformed to the minority decision. Moscovici concluded that this was due to 3 things: a) subjects had an error in perception, b) subjects thought they were wrong – error in judgement or c) although subjects had known they were right, they had suffered anxiety about going against the minority decision. **[the 3 things could be taken as findings even though introduced as conclusions but they are also from Asch's study not Moscovici. Only one flawed finding = 1 mark]**

Although the study showed the influence of minority in certain circumstances, it was criticised for its lack of ecological validity as conformity in real life rarely occurs in a similar situation to this. **[generally accurate – it may occur in a situation like this but may be less valid because it is a trivial situation = 2 marks]**

- (c) In 1963 Milgram carried out a study looking at obedience to authority. He told participants that he was conducting a study on learning. **[AO1 procedures]** The study entailed delivering (false) electric shocks to a confederate when he answered a question incorrectly. **[AO1]** By the end of the study 62.5% of subjects had delivered shocks up to the maximum 400 volts, enough to kill a man. Every subject delivered shocks up to 350 volts. **[findings]**

These findings held important implications about the willingness of ordinary people to obey and many people, including psychologists, questioned whether Milgram's procedure had been ethical. **[AO2 comment]** During the study the stooge would occasionally call out to stop the shocks, to which Milgram would calmly ask participants to continue. **[generally accurate procedures AO1]** Many subjects showed extreme distress and anxiety over, supposedly, harming the stooge, however, many continued delivering the shocks. **[AO2 comment on ethics]** Due to the nature of the responses, Milgram had his membership to the APA suspended in 1964. **[further comment, AO2, informed]** In defence of himself he argued that participants could have stopped their intense distress at any time by refusing to carry on. **[AO2, counterpoint]** At no point did he force a subject to continue against their free will. **[AO2]**

Although Milgram did deceive participants on the real aim of the study **[AO1]**, and thus failed to get fully informed consent, it is possible to view the procedures of being similar to that of a situation whereby unpleasant orders must be obeyed, for example in the army. **[AO2 justification]** The nature of social psychological research means an element of deception must be retained to ensure the validity of the study. **[AO2 justification]**

Zimbardo in 1973 attempted to overcome many of the criticisms Milgram had faced by obtaining consent from participants **[AO2 commentary]** and de-briefing them on the aim of the study. **[AO1 procedures]** In Zimbardo's study a group of men took on the roles of either guard or prisoner in the prison simulation. **[AO1 procedures]** The study, intended to last 2 weeks, was stopped after 6 days **[AO1 procedure]** due to the way guards had adopted their roles. On entering the 'prison', prisoners had been showered, de-clothed and given a number rather than a name. **[AO1 procedures]** This allowed for guards to remain anonymous and de-individualised the prisoners, making it easier to treat them brutally. **[AO2 comment on ethics of procedures]** Again this study was heavily criticised over ethics, as many prisoners had suffered severe depression and anxiety **[AO2 comment]**, however it provided important information about the dangers of adopting new roles in new social situations and conformity. **[AO2 counterpoint, reasonably effective]**

Although it seems that 'some of the procedures used by social psychologists are ethically questionable', it is important to weigh the information gained against the ethical costs. **[AO2 comment]** Both Milgram and Zimbardo's studies revealed important information about the nature of obedience and conformity, and participants in both studies said they did not regret taking part. **[AO2]** To help aid social psychological research the BPS published the book of ethical guidelines in an attempt to overcome these issues. **[AO2]**

AO1: Accurate and detailed – though closer to limited = 5 marks.

AO2: Reasonable rather than informed commentary, but otherwise thorough and effective = 11 marks. Total for part (c) = 16 marks.

Candidate C – Total for question = 25/30 marks, an excellent response.

PYA3**SECTION B: RESEARCH METHODS****Question 3****Total for this question: 30 marks**

A teacher in a small secondary school wanted to find out whether there was any truth in her idea that students who used a computer regularly for their homework achieved higher exam grades than those who did not.

She decided to interview a sample of 30 students taken from across the school. She tape-recorded all the interviews. She later obtained their end of year exam grades from their reports.

- (a) (i) Name **two** different methods that the teacher might have used to select her sample (2 marks)
- (ii) Explain how she would have carried out **one** of the methods of selection named in part (i). (2 marks)

Marking criteria

The method of selection identified on the specification is random sampling and given that the teacher would have access to the school registers, this would be a likely method. Other possible methods could include opportunity or convenience sampling (just select any student who is available); stratified sampling (knowing the composition of students in the school she could select representative strata); self-selecting or volunteer sampling (put up a notice asking for students to take part in her study).

Marking allocation

For the methods of sampling:

2 marks	Both methods of sampling are appropriate .
1 mark	Only one method of sampling is appropriate .
0 marks	No appropriate methods of sampling are identified or incorrect methods identified.

For the method of implementation:

2 marks	The method is both accurate and detailed .
1 mark	The method is brief or muddled .
0 marks	The method is inappropriate or the method is incorrect .

(b) (i)	Outline one advantage of using interviews in psychological research.	(2 marks)
(ii)	Outline one weakness of using interviews in psychological research.	(2 marks)

Advantages of interviews:

- They can provide more detailed information than other methods.
- It is possible for the participant to give his or her own, subjective opinion.
- Interviewer can adapt questions.
- Allows personal topics to be studied.

Weakness of interviews:

- The interviewer might misinterpret the data.
- Interviewers might not be able to express themselves clearly.
- Interviewer effects: the interviewer’s looks may influence the interviewee.
- Demand characteristics: interviewee might try to please the interviewer etc.

No requirement to be contextualised.

Marking allocation

For the advantage/weakness

2 marks	Accurate and detailed identification of the advantage/weakness.
1 mark	Brief or muddled identification of the advantage/weakness.
0 marks	No identification of the advantage/weakness or incorrect identification.

(c)	Outline one way in which the teacher could check the reliability of the data concerning computer use that she collected from the interviews with the students.	(2 marks)
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Marking criteria

Reliability refers to the consistency of the measuring tool, whether there will be similar results if repeated.

By repeating the interviews, the teacher could see whether she obtains the same or similar responses from the students. For example, test-re-test, equivalent forms of reliability, split-half reliability and inter-rater reliability.

Marking allocation

2 marks	Accurate and detailed outline of a method of checking reliability.
1 mark	Brief or muddled outline of a method of checking reliability.
0 marks	No outline of a method of checking reliability or incorrect answer.

(d) What is meant by the term validity in the context of research?

(2 marks)

Marking criteria

Validity refers to the extent to which a test/procedure measures what it intends to measure. It is also possible to accept answers referring to specific types of validity, such as internal validity or external validity.

Marking allocation

2 marks	Accurate and detailed definition.
1 mark	Brief or muddled definition.
0 marks	No definition or incorrect definition.

(e) Give **one** factor that could affect the validity of the interviews with the students.

(2 marks)

Marking criteria

Reliability can affect validity; if the interviews are not reliable, they then will not be valid.

Misleading questions can cause students to provide incorrect information.

Demand characteristics can influence the students' responses so that they distort the truth.

The candidate must be able to suggest what causes the problem, merely stating that interviews lack ecological validity, or that they cannot be generalised is not appropriate and will not receive credit.

Marking allocation

2 marks	The factor given is both accurate and detailed
1 mark	The factor given is brief or muddled .
0 marks	No factor is given or the factor is incorrect .

(f) Identify **one** ethical issue that the teacher might have considered and explain how she might have dealt with it. (1 mark + 2 marks)

Marking criteria

Possible ethical issues that she might consider are:

- Right to withdraw; all the students should be told that they do not have to take part and that if they do, they may leave at any time.
- Confidentiality: she should assure all students that their responses will remain confidential.
- Anonymity: all responses should be anonymous.
- Parental consent should be obtained, as the students are school aged.

How the ethical issue is overcome will depend on the issue chosen. However, it is likely that candidates will choose the current BPS Guidelines for that issue, although there are other possible solutions.

Marking allocation

For the identification of the ethical issue:

1 mark	Appropriate ethical issue identified.
0 marks	No appropriate ethical issue identified or incorrect identification.

For the explanation of how to overcome the issue:

2 marks	Explanation is both accurate and detailed .
1 mark	Explanation is brief or muddled .
0 marks	Explanation is inappropriate or the explanation is incorrect .

- (g) (i) Identify **one** appropriate measure of central tendency for the time students spent on the computer each week and explain how you would calculate it. (2 marks)
- (ii) Outline **one** disadvantage of the measure of central tendency you have identified in (i). (2 marks)

Marking criteria

Since time is an interval level of measurement, the mean would be an appropriate measure, however candidates could also make a case for using the median or the mode. Whichever of the three that is offered, the candidate must explicitly state *how* it would be calculated. For example, the median involves placing all the data in numerical order and selecting the middle value(s).

The disadvantage offered will depend on the measure of central tendency chosen. For example, if the mean is offered, a disadvantage is that it is affected by outliers.

Marking allocation

For the measure of central tendency:

2 marks	The suggestion for calculating a measure of central tendency is both accurate and detailed .
1 mark	The suggestion for calculating a measure of central tendency is basic, lacking detail , and may be muddled and/or flawed .
0 marks	The suggestion for calculating the measure of central tendency is inappropriate (for example, the candidate may offer a way of calculating the range) or the suggestion is incorrect .

For the disadvantage:

2 marks	The disadvantage of the measure of central tendency is both accurate and detailed .
1 mark	The disadvantage of the measure of central tendency is basic, lacking detail , and may be muddled and/or flawed .
0 marks	The disadvantage of the measure of central tendency is inappropriate (for example, the candidate may suggest that it is difficult to calculate the mean) or the suggestion is incorrect .

(h) The teacher decided to conduct an experiment to see whether giving students more time using computers would improve their exam grades.	
(i) Suggest a non-directional hypothesis for this experiment.	(2 marks)
(ii) Identify an appropriate design.	(1 mark)
(iii) Using the design identified in (ii) outline the procedures that could be used for this experiment.	(6 marks)

Marking criteria

(i) An appropriate non-directional hypothesis could be: the time spent on computers will affect exam grades. To achieve both marks, the hypothesis must be non-directional and must identify the two variables.

No marks for a directional hypothesis.

Marking allocation

For the hypothesis:

2 marks	The hypothesis is both accurate and detailed . For example it is non-directional and the variables are identified.
1 mark	The hypothesis basic , lacking detail , and may be muddled and/or flawed . For example, the hypothesis is non-directional but the variables are not both identified.
0 marks	The hypothesis is inappropriate (for example, the candidate may offer a null hypothesis) or no hypothesis is offered.

(ii) An appropriate experimental design could be: independent groups design, repeated measures design or matched pairs design.

For the design:

1 mark	Appropriate design is identified .
0 marks	No appropriate design identified or incorrect identification.

(iii) If (ii) is incorrect or answer is absent, then (iii) receives 0 marks.

Candidates could consider several aspects of their experiment, but they should provide sufficient information so that it is possible to see how the procedures relate to the design in (ii).

- What stimulus material will be used.
- How will the participants be selected, who they will use?
- Ethical issues.
- What they intend to measure and how they will do so.
- Analysis of data could also be considered.

All of these have to be considered in the context of the design. Candidates must show some understanding of the design they mention in (ii).

For the outline of the procedures:

6-5 marks	Description of the procedures is both accurate and detailed . For example, the candidate has provided sufficient detail to show how the experiment would be conducted, including some of the topics outlined above.
4-3 marks	Description of the procedures is limited . It is generally accurate but less detailed . For example, a brief outline is provided, but lacking details, some aspects of the procedure is unclear.
2-1 marks	Description of procedures is basic, lacking detail , and may be muddled and/or flawed . For example, it would be difficult to replicate the experiment.
0 marks	The description is inappropriate (for example not related to the procedures) or the description is incorrect .

Response to Candidate D

(page 22 of main document)

- (a) 2 + 1 marks
- (b) 2- and 2- marks
- (c) 0 marks
- (d) 1 mark
- (e) 2 marks
- (f) 1 + 2 marks
- (g) 2 + 0 marks
- (h) 1 + 1 + 0 marks

Total for question = 17/30 marks, a good response.

Response to Candidate E

(page 22 of main document)

- (a) 2 + 2 marks
- (b) 1 + 2 marks
- (c) 0 marks
- (d) 2 marks
- (e) 1- mark
- (f) 1 + 2 marks
- (g) 1+ and 2 marks
- (h) 2 + 1 + 5 marks

Total for question = 24/30 marks, an excellent response.

Response to Candidate F

(page 23 of main document)

- (a) 2 + 1 marks
- (b) 1+ and 2- marks
- (c) 0 marks
- (d) 0 marks
- (e) 0 marks
- (f) 0 + 0 marks
- (g) 1+ and 0 marks
- (h) 0 + 1 + 2- marks

Total for question = 10/30 marks, a weak response.

PYA4

Question 3

Total for this question: 24 marks

- (a) **Outline two or more explanations of media influences on anti-social behaviour.** (12 marks)
- (b) **To what extent do research studies support the view that the media are responsible for anti-social behaviour?** (12 marks)

Outline is an **AO1** injunction, which requires candidates to provide a summary description of explanations of media influences on anti-social behaviour [part (a) of the question].

The **AO2** injunction is *To what extent*, which requires the candidate to present consider the extent to which research studies support the view that the media is responsible for anti-social behaviour [part (b) of the question].

(a) AO1

This question is a departure from the more usual question in this topic area in that it asks for explanations of media influences on anti-social behaviour. This is faithful to the wording of the specification, and requires more than just a documenting of research that has (or has not) demonstrated this influence. Some candidates may take the view that there is a simple correlational relationship between exposure to violent media and the emergence of violent behaviour. Others may draw more on experimental research which suggests that violent media has a causal influence on violent behaviour. Whilst such responses are relevant and would receive credit, better candidates should be able to explain this relationship in terms of underlying psychological mechanisms and processes. For example, work by Brown and Pennell (1998) suggests that television and video violence has a mediating influence rather than being the sole causal factor in violent behaviour. Bandura (1983) suggests that television may exert its influence through socialising influences such as the learning of novel behaviours, the vicarious legitimisation of aggressive behaviours and the desensitisation of the viewer towards violence.

(b) AO2

Although there are studies that do purport to show media effects on anti-social behaviour, the methodological limitations of these studies might detract from our ability to make sweeping generalisations based on their findings. Likewise, many studies have failed to find evidence of a consistent relationship between media violence and anti-social behaviour, therefore such studies can be used as a critical counterpoint to the media effects perspective. Candidates who do no more than describe appropriate research studies without using this material as part of a sustained critical commentary on the media effects model will receive a maximum of 4 marks (top of Band 1) for the AO2 component of this question. Candidates may also offer a more general evaluation of the media effects model as an explanation of violent behaviour in children (e.g. the criticisms of this model offered by Gauntlett, (1998), Cumberbatch (2001) and Livingstone, (2001). According to Cumberbatch, for example, although there have been many anecdotal claims that people do imitate violent programmes, in real life there is little evidence for this. Livingstone suggests that the challenge within media effects research is not to try to answer simple questions with simple answers, but to construct a more complex picture, based on the differences, contradictions and parallels among diverse studies.

Note that partial performance penalties apply in both parts of this question (see AO1 and AO2 mark allocations). If a candidate includes material that is clearly relevant and would earn marks in one part of a question, it should remain (when determining marks) regardless of whether it might earn more marks elsewhere. If the material is only peripherally relevant or irrelevant to one part of the question and would earn marks in the other part, then it should be ‘exported’ (when determining marks) to that part.

QUESTION 3 AO1*Outline of two or more explanations of media influences on anti-social behaviour*

Band	Mark allocation	Marks
Band 3 top	Outline of two or more explanations of media influences on anti-social behaviour is substantial . It is accurate and well-detailed . The organisation and structure of the answer is coherent .	12 - 11
Band 3 bottom	Outline of two or more explanations of media influences on anti-social behaviour is slightly limited . It is accurate and reasonably detailed . The organisation and structure of the answer is coherent .	10 - 9
Band 2 top	Outline of two or more explanations of media influences on anti-social behaviour is limited . It is generally accurate and reasonably detailed . The organisation and structure of the answer is reasonably constructed . <i>Partial performance is substantial, accurate and well-detailed (top of the band) or slightly limited, accurate and reasonably detailed (bottom of band).</i>	8 - 7
Band 2 bottom	Outline of two or more explanations of media influences on anti-social behaviour is basic . It is generally accurate but lacks detail . The organisation and structure of the answer is reasonable . <i>Partial performance is limited, generally accurate and reasonably detailed.</i>	6 - 5
Band 1 top	Outline of two or more explanations of media influences on anti-social behaviour is rudimentary and sometimes flawed . There is some focus on the question. The organisation and structure of the question is reasonable . <i>Partial performance is basic, generally accurate and lacking detail.</i>	4 - 3
Band 1 bottom	Outline of two or more explanations of media influences on anti-social behaviour is just discernible . It is weak and shows muddled understanding . The answer may be wholly or mainly irrelevant to the question's requirement. <i>Partial performance is rudimentary and sometimes flawed, with little focus on the question.</i>	2 - 0

QUESTION 3 AO2

Consideration of the extent to which research studies support the view that the media is responsible for anti-social behaviour

Band	Mark allocation	Marks
Band 3 top	Consideration of the extent to which research studies support the view that the media is responsible for anti-social behaviour is thorough and there is evidence of appropriate selection and coherent elaboration . The material is used in a highly effective manner	12 - 11
Band 3 bottom	Consideration of the extent to which research studies support the view that the media is responsible for anti-social behaviour is slightly limited and there is evidence of appropriate selection and coherent elaboration . The material is used in an effective manner.	10 - 9
Band 2 top	Consideration of the extent to which research studies support the view that the media is responsible for anti-social behaviour is limited and there is reasonable elaboration . The material is used in reasonably effective manner. <i>Partial performance is thorough, coherent and highly effective use of material (top of band) or slightly limited and effective use of material (bottom of band).</i>	8 - 7
Band 2 bottom	Consideration of the extent to which research studies support the view that the media is responsible for anti-social behaviour is basic and there is some evidence of elaboration . The material is used in a restricted manner. <i>Partial performance is limited with reasonable elaboration, and reasonably effective use of material.</i>	6 - 5
Band 1 top	Consideration of the extent to which research studies support the view that the media is responsible for anti-social behaviour is superficial, and rudimentary , and there is no evidence of elaboration . The material is not used effectively . <i>Partial performance is basic with some evidence of elaboration, and restricted use of material.</i>	4 - 3
Band 1 bottom	Consideration of the extent to which research studies support the view that the media is responsible for anti-social behaviour is muddled and incomplete . The material may be wholly or mainly irrelevant . <i>Partial performance is superficial with no evidence of elaboration, and not used effectively.</i>	2 - 0

Response to Candidate G

(page 48 of main document)

- (a) The first explanation of media influences on anti-social behaviour that must be considered is the social learning theory by Bandura. **[introductory statement]** The social learning theory focuses on two predominant learning processes: imitation and operant conditioning, and a combination of both known as vicarious reinforcement. **[clear statement of principles]** Imitation can be explained in terms of media influence in that we witness a role model in the media or on television displaying anti-social behaviour and we proceed to copy that behaviour at a later time. **[relating to media influence]** The process of operant conditioning, where we are rewarded for a certain behaviour and so repeat that behaviour again is only affected by the media in terms of vicarious reinforcement. **[not very well put, but meaning that rewards are experienced vicariously in the media]** Bandura argued that this is where we see a role model in the media being rewarded for their anti-social behaviour and so we are likely to imitate that behaviour ourselves. **[expansion]** Bandura argued that the role model is likely to be the same gender or race as the imitator as they have more identification with each other. **[explaining conditions for best imitation, could be clearer]**

Bandura's ideas were supported by his various studies with the Bobo doll, whereby children who saw an adult behaving aggressively towards this doll were more likely to imitate the behaviour. **[many candidates mention Bobo at this point but here it contributes nothing to the explanation and so may be exported to part (b) where it may receive some credit if used effectively]** These studies are widely recognised and support the ideas of Bandura, they also support the idea therefore that role models in the media could also have a huge effect. **[overly descriptive material avoided and study used to make comment relevant to part (b)]**

The second explanation of media influence on anti-social behaviour is cultivation theory. **[a theory proposed by Gerbner, see www.aber.ac.uk/media/Documents/short/cultiv.html]** Cultivation is a fairly recent idea in comparison with social learning theory **[can count as AO1 even though it is a comment it contributes to the explanation]** and proposes that we form a false social reality that the world around us is more dangerous, aggressive and anti-social than it really is. **[clear explanation]** This false social reality is caused by the anti-social behaviour that we see in the media, for example if we witness a large amount of muggings in the media or on television then we assume that there really are a lot more muggings in real life than there really are. **[good use of an example to demonstrate understanding]** The false social reality causes us to behave in a more aggressive and anti-social manner in order to protect ourselves from harm in this dangerous world. **[further clear explanation]** It must also be recognised however that the process of cultivation can occur for pro-social images in the media. **[marginal AO2 credit]**

AO1: Two explanations is acceptable, accurate and reasonably detailed, coherent. Limited or slightly limited? 8 or 9 marks.

- (b) Whether the media is responsible for anti-social behaviour is a conflicting issue and the research studies around the issue are conflicting. **[introductory statement]** The long-term St. Helena project, where television was only introduced in 1995 to the island, found that the introduction of television caused no increase in anti-social behaviour. **[effective use of material, minimal description]** The children's behaviour on one island was monitored before and after the introduction and no increase of anti-social behaviour was found. **[repetition of same point]** However, seen as this is a limited sample from a small island community it may not be reasonable to generalise this to other populations. **[possible criticism though the study does show us how culture matters]** Furthermore, it has been suggested by many that the children could have learned the behaviour but they were not demonstrating it because of their cultural situation. **[good point, effective and coherent]**

Bandura has found that after watching violent films people were more likely to demonstrate aggressive behaviour than those who watched non-violent films, suggesting that the media does influence anti-social behaviour. **[reasonably effective, contrast could be made with St. Helena study]**

Other researchers have found a link between watching aggressive, violent films and an increase in aggression later in life. **[using a different kind of evidence – correlational, but lacks detail of studies]** This would contradict Bandura who claimed that the effect was immediate whereas this would support cultivation theory which only takes place over a longer period of time. **[interesting point but not entirely convincing, SLT would predict long term effects though Bobo study may have only be concerned with short-term effects]** One research found that watching violent films in prison also led to increased aggression among juvenile delinquents supporting the idea that media does increase aggression. **[this is study by Parke et al., effectively used though brief]** Yet this study was criticised as due to the situation the juveniles were likely to be aggressive already and it is a biased sample so the findings can't be generalised. **[a limited comment]**

In contrast to all these studies, Sprafkin found that the media can have a positive impact on behaviour. **[nice, logical argument]** He found that children who watched an episode of Lassie where a boy saved a puppy were more likely to help puppies in a contrived situation. **[this is just the right amount of detail]** This demonstrates that the media can be responsible for pro-social behaviour. **[repeat]**

It appears obvious from this conflicting research that the influence of the media depends on which programmes are watched. **[good point not entirely drawn out from previous material – lacks elaboration]**

AO2 Appropriate selection of material and for the most part coherently elaborated. Slightly limited/thorough for a 15 minute response. Probably more effective than highly effective = 10 marks.

Candidate G – Total for question = 19/24 marks, a very good response.

Response to Candidate H

(page 49 of main document)

- (a) Anti-social behaviour is rampant in the media and the causes are numerous. **[commentary, weak]** The sheer amount of violence that we are exposed to means that we must become accustomed to it. This is known as desensitization. **[first explanation]** This occurs when so much anti-social behaviour is seen that it becomes the norm and is no longer effective and arousing as it might have been before. **[detail provided showing understanding]**

Another effect that the media might have on anti-social behaviour is that it tends to stimulate it. **[second explanation]** When impressionable individuals, such as children, watch anti-social behaviour they tend to learn it through observation, hence the term observational learning. **[combining predisposition with SLT]** This, although unintentional, may have far reaching effects and sometimes the individual may imitate the behaviour. **[weak further detail]** For example, when a child watches a wrestling match on TV and becomes slightly aroused, the child might find that the feeling of arousal is slightly enjoyable so to obtain it again might replicate that behaviour to the detriment of other people. **[direct learning not SLT, so a kind of third explanation]**

Another reason why media influences anti-social behaviour is that the model on the screen is a role model and children emulate heroes, because what they do must be correct. **[SLT]** This is explained by vicarious reinforcement where seeing someone else get pleasure from doing something increases the likelihood that the child might repeat the behaviour. **[further detail, demonstrating understanding]**

Another explanation that the media might have on anti-social behaviour is called disinhibition which is when seeing violence on TV weakens pre-learned morals because you see someone else doing things that you thought you shouldn't do. **[fifth explanation]** This means you feel less inhibited about repeating such behaviour. **[further detail]**

AO1: Increasing breadth, reasonably detailed – just, reasonably constructed = 7/8 marks.

- (b) Research tends to lean towards the view that anti-social behaviour (i.e. aggression) does tend to be created by the media. **[introductory comment]**

Bandura et al. performed an experiment to test the effects of the media on anti-social behaviour. The experiment involved a Bobo doll which is a doll that rises back up after being hit. The doll was struck in a number of situations. In the first situation the doll was struck by an adult (while a child watched) and the adult was rewarded for this action. In another instance the adult struck the doll and was punished. Finally the adult struck the doll and nothing happened. **[description of the study, minimal credit]** The children were more likely to copy the behaviour of the adult when he was rewarded or left alone rather than if he was punished. **[again description]** This shows that watching behaviours on the media may have an effect **[weak link to media effects, making some effective use of material]** however this only takes place when participants have low self-esteem or are still developing, like children. **[further commentary not well elaborated]**

The validity of these findings can be questioned as the study took place outside the context of real life **[fair comment]** but the tapes being played on screen might have simulated reality effectively enough to work. **[muddling several experiments together]** The problem with this research is that demand characteristics are in play. **[another fair comment]** The children were not given instructions about what to do and they may have assumed that certain behaviours were required. **[some further elaboration]**

A piece of research which does not support this is the St. Helena experiment **[contrasting evidence]**, where a small island was introduced to television for the first time. The anti-social problems were very low before television and even after its introduction the figures remained low. **[description of findings]** This could suggest that family/society values had a key role in anti-social behaviour. **[reasonably effective use of material]**

In a remote part of Canada, TV was introduced and within a short space of time anti-social behaviour had risen steeply. **[Williams et al. study]** This suggests that, in some situations i.e. Western cultures values are more easily corrupted. **[some elaboration and effective use of material]**

The media on the other hand are also responsible for pro-social messages such as programmes like Sesame Street. **[contrasting view]** This shows that although anti-social behaviour can be explained because of the media, there are other messages to. **[weak elaboration]**

AO2: Range of evidence = basic/limited. Borderline for other criteria such as elaboration and effective use of material, balance is closer to band 2 bottom than band 3 = 7 marks.

Candidate H – Total for question = 14/24 marks, a good response.

PYA5

Question 7

Total for this question: 30 marks

- | | |
|--|------------|
| (a) Explain what is meant by reductionism. | (5 marks) |
| (b) Describe and evaluate the case for reductionist explanations in psychology. | (25 marks) |

- (a) *Explain* is an **AO1** term which requires the candidate to demonstrate his or her knowledge of what is meant by reductionism.
- (b) *Describe* is an **AO1** term which requires the candidate to give evidence of **AO1** with relation to the case for reductionist explanations in psychology. *Evaluate* is an **AO2** term which requires the candidate to give evidence of **AO2** with relation to this.

Part (a) Indicative AO1

Reductionism is the attempt to reduce phenomena to simpler or lower-order ones.

Rose (1997) identifies three forms of reductionism;

- Methodological reductionism;
- Philosophical reductionism (the attempt or desire to establish language of all sciences);
- Ideological reductionism (reducing the number of different ideological accounts or explanations of a particular phenomenon).

Examiners should bear in mind that the allocation of marks for this question is only 5, this means that it has a notional time allocation of around 6 minutes so it's unreasonable to expect particularly detailed or lengthy answers. Note that the explanation does not have to be in a context of psychology. Candidates might make good use of examples to enhance the quality of their explanation.

Part (b) Indicative AO1

It should be noted that the question requires candidates to describe the case **for** reductionist explanations in psychology. Consequently in the unlikely event of an answer being given which only forwarded the case against no credit will be awarded. Candidates may, of course, use arguments **against** as an **AO2** to the arguments for **AO1**. Candidates may answer the question at a micro or a macro level. An example of the former would be (for **AO1**) a description of key features of specific theories or methodologies; the latter would be broad approaches such as behaviourism or psychoanalysis. There may also be descriptive account of the different aspects of reductionism (e.g. from macro to micro level, canon of parsimony, reduction of number of theories).

Advantages of reductionism include enhanced scientific status and possible greater unification with other sciences; and simplicity/parsimony.

There are two potential pitfalls for candidates in answering this question. One is to focus too heavily on reductionism per se and the other is to get drawn into inappropriately detailed accounts of particular psychological theories and/or studies and fail to relate them sufficiently to reductionism.

Additional synoptic possibilities

The focus of the question is itself synoptic because it is concerned with a debate in psychology but other synoptic possibilities may be relevantly raised. These include theoretical perspectives (e.g. behaviourism versus humanistic psychology or Gestalt psychology), methodologies (e.g. psychometric tests versus open-ended interviews), other issues/debates such as the use of non-human animals in psychology, free-will/determinism and psychology as a science. Links may also be made to other parts of the specification, e.g. biopsychology and AS coverage of biological versus psychological explanations (of psychological abnormality).

Indicative AO2

This part of the answer is an evaluative/analytical appraisal of reductionist explanations in psychology. It is likely that it is achieved by examining the extent to which different branches of psychology are characterised by the features and/or goals of reductionism and whether these are appropriate for psychology.

Advantages of reductionism include enhanced scientific status and possible greater unification with other sciences; and simplicity/parsimony. Disadvantages include a failure to appreciate holistic principles such as those expounded by Gestalt and Humanistic psychologists and the argument that some psychological phenomena such as human consciousness are not easily amenable to reductionism.

Candidates may be credited for arguments **against** reductionism insofar as they represent evaluation of arguments **for** reductionism, provided they are clearly related (i.e., not separate, unrelated points)

Additional synoptic possibilities

All of the points made above with reference to **AO1** synopticity are also relevant here but must be made at analytical and/or evaluative levels. In addition, credit may be earned by employing a number of different means of evaluation or analysis.

Question 7(a). Assessment AO1.

Explanation of what is meant by reductionism

Band	Mark allocation	Marks
Band 3	Explanation of reductionism is reasonably thorough, accurate and coherent . AS APPROPRIATE FOR 5 MARKS.	5-4
Band 2	Explanation of reductionism is limited, generally accurate and reasonably coherent . AS APPROPRIATE FOR 5 MARKS.	3-2
Band 1	Explanation of reductionism is weak and muddled . AS APPROPRIATE FOR 5 MARKS.	1-0

7(b). Assessment Objective 1

Description of case for reductionist explanations in psychology

Band	Mark allocation	Marks
Band 5	Description of case for reductionist explanations in psychology is substantial . It is accurate and well-detailed . The organisation and structure of the answer is coherent . There is substantial evidence of breadth/depth and synoptic possibilities (p.6). AS APPROPRIATE FOR 10 MARKS.	10-9
Band 4	Description of case for reductionist explanations in psychology is slightly limited . It is accurate and reasonably detailed . The organisation and structure of the answer is coherent . There is evidence of breadth/depth and synoptic possibilities (p.6). AS APPROPRIATE FOR 10 MARKS.	8-7
Band 3	Description of case for reductionist explanations in psychology is limited . It is generally accurate and reasonably detailed . The organisation and structure of the answer is reasonably constructed . There is some evidence of breadth/depth and synoptic possibilities (p.6). AS APPROPRIATE FOR 10 MARKS.	6-5
Band 2	Description of case for reductionist explanations in psychology is basic and lacking detail . There is some focus on the question . There is little evidence of synoptic possibilities (p.6). AS APPROPRIATE FOR 10 MARKS.	4-3
Band 1	Description of case for reductionist explanations in psychology is just discernible . It is weak and shows muddled understanding. The answer may be wholly or mainly irrelevant to the question's requirement. There is little or no evidence of synoptic possibilities (p.6). AS APPROPRIATE FOR 10 MARKS.	2-0

7(b). Assessment Objective 2.

Evaluation of case for reductionist explanations in psychology

Band	Mark allocation	Marks
Band 5	Evaluation of case for reductionist explanations in psychology is thorough . The material is used in a highly effective manner and shows evidence of appropriate selection and coherent elaboration of synoptic possibilities (p.6).	15-13
Band 4	Evaluation of case for reductionist explanations in psychology is slightly limited . The material is used in an effective manner and shows evidence of appropriate selection and elaboration of synoptic possibilities (p.6).	12-10
Band 3	Evaluation of case for reductionist explanations in psychology is limited . The material is used in a reasonably effective manner and shows reasonable elaboration of synoptic possibilities (p.6).	9-7
Band 2	Evaluation of case for reductionist explanations in psychology is basic . The material is used in a restricted manner and shows some evidence of elaboration of synoptic possibilities (p.6).	6-4
Band 1	Evaluation of case for reductionist explanations in psychology is weak, muddled and incomplete . The material is not used effectively and may be wholly or mainly irrelevant in terms of synoptic possibilities (p.6).	3-0

Response to Candidate I

(page 51 of main document)

- (a) Reductionism is the notion that the whole can only be understood by the sum of its parts. **[clear opening definition]** Reductionism attempts to explain behaviour by reducing it to its simplest components. It breaks down behaviour significantly in an attempt to comprehend it as a whole. **[further clear elaboration of definition]** This makes it scientifically more testable. **[a kind of commentary but relevant to description]**

Part (a) AO1: This is a relatively brief answer but it is accurate, coherent and reasonably thorough = 4 marks awarded.

- (b) There are many reductionist explanations found within psychology. Freud's theories are reductionist in that they explain adult behaviour as a result of early childhood experiences. **[not an especially good example of reductionism and also not relevant to this question which requires an examination of arguments for reductionism]** For example, Ainsworth's attachment types (avoidant) are a result of the relationship between mother and child. **[what is the link to Freud?]**

Behaviourists, especially Skinner, also demonstrate reductionism in that they explain behaviour as a result of learning. **[a better example of reductionism but again, this is not relevant to the question]** They believe that all behaviour is learnt from the environment. Classical conditioning proposes that behaviour is a consequence of learning through association, that is stimulus-response links. As indicated by Pavlov's dogs and their salivation at the sound of a bell. **[nice example of how a brief sentence can provide useful elaboration – but the candidate has still made no attempt to address the question]**

Operant conditioning is learning through reinforcement, positive reinforcement such as a reward, praise or food, and negative reinforcement in the form of punishment. This can explain eating disorders such as anorexia, those who lose weight are positively reinforced when complemented with the weight loss. **[the link to anorexia might be regarded as a rudimentary attempt to present an argument for (AO1) the Behaviourist approach and reductionism, but this is working hard for the candidate]**

Bandura's (1961) social learning theory is also reductionist, although an improvement to the other learning theories. It assumes that we learn by observation, by direct or vicarious reinforcement resulting in people modeling the behaviour. **[nothing of credit]**

These behaviourist explanations are reductionist in that they focus only on one aspect – the environment as a causal influence of behaviour. **[but no case made for why this makes reductionist explanations desirable. This candidate has clearly been prepared to answer a different question on reductionism, perhaps “Discuss examples of reductionism in psychology” but has not been able to shape their knowledge to answer this question]**

The biological approach is also a terribly reductionist view of behaviour, especially mental illness being derived from physical causes, insinuating a malfunction of biological systems. **[a third approach described, but following the pattern of the previous two, i.e. not made relevant]** For example, their explanation of schizophrenia is a result of an excess in the brain of the neurotransmitter dopamine. Yet it is unknown whether the high dopamine levels are a cause or the result of the disorder. **[this comment could have been turned into a relevant comment on reductionism, for example, “reductionist explanations have criticisms possibly because they oversimplify behaviour”. So again, a small amount of credit here but working very hard for this candidate]**

The evolutionary approach too is reductionist, based on the premise that people behave as a result of their genes. Here relationships are explained in terms of the propagation of their genes, and that according to Buss (1989) men seek younger attractive females as this indicates fertility whilst women seek older established men to help bring up their offspring. This fails to take into account cognition, or social molding, or even individual differences but rather reduces human behaviour to animal-like qualities. **[AO2: a real criticism of reductionism]**

Cognitive psychologists view behaviour as purely the result of thinking, and therefore reduce behaviour to a simple component. **[a fourth reductionist approach]** It further reduces behaviour by comparing the human mind to that of a machine in order to understand it. **[weak AO1 point that this reductionist point can be used to understand behaviour]** Considering memory to consist of storage and retrieval, rather like that of a computer. This is a terribly mechanistic approach and simplifies behaviour to a great extent. **[AO2: a weak comment on a limitation taking this reductionist approach]** This approach ignores childhood experiences, biology and the influence of the environment. **[this comment, however, is not relevant to the question]**

Stress can be explained using the diathesis-stress model, which insinuates that we have a genetic predisposition to become stressed, yet the presence of a stressor is also required. This encompasses both genetic and the environment which seems to be lacking. **[the point that the candidate is trying to make, with regard to reductionism, is not clear]** Experimental investigations are also reductionist, manipulating one variable in an attempt to see its affect on the other. This lacks ecological validity because attempts to replicate this behaviour outside this artificial setting has been largely unsuccessful. **[this could have been turned into a reasonable AO2 point and deserves some AO2 credit]** The reductionist approach is also deterministic, as it simplifies behaviour to such an extent that it assumes that there is one cause of behaviour. **[weak AO2, presumably the candidate is suggesting that this is a weakness of the reductionist approach though it could be a strength]** Studies on aggression have been reductionist focusing on just stressors such as noise or being in a crowd. Ignoring the mood or emotion of the individual. **[the candidate knows lots of examples of reductionism and explains them well. Perhaps there is an implicit AO1 point – the argument for reductionism is that there is lots of it in psychology! There is also a small AO2 point here, that this reductionist approach ignores mood and emotion]** Memory models such as Atkinson and Shiffrin's (1968) is also reductionist, ignoring the impact of emotion while using the computer to simplify the processes. **[a similar weak AO2 point, not well expressed, plus reference to how reductionist processes help simplify explanations]**

IQ is also reductionist as seen with the use of intelligence tests. These are developed by Western individualist cultures so are culturally biased and can no way bear resemblance or significance to other cultures. **[relevance]** Eating disorders can also be explained in terms of a genetic predisposition, ignoring the fact that the individual may have learnt to avoid to eat. **[relevance not made clear and repetition of earlier point about anorexia]**

By reducing behaviours to a set of simple influences almost suggests that there is no room for free will of the individual. **[again, this comment is presumably an argument against reductionism, very weak AO2]** Even the nature-nurture debate can be viewed as reductionism for behaviour is simplified and reduced to fit either one category or another. **[can it?]**

The concept of reductionism is effective in that it makes scientific investigation possible, managing to establish cause and effect. **[an AO1 point, but not explained very well]** Yet it is only useful for quantitative data rather than qualitative data which be more fitting for areas of psychology. **[not clearly explained and also not necessarily true. Qualitative research can be very scientific]** For example, stage models relating to bystander apathy or the dissolution of relationships (Duck) emphasise simplicity but people are unpredictable and unique creatures and to simply reduce behaviour to such an extent is to de-emphasise and undermine the richness and complexity of behaviour. **[using examples is a good way to communicate understanding, but these examples don't appear to be relevant. The final part of this sentence is another reasonable point against reductionism]**

Part (b) This is a case of where a candidate might have profited considerably by writing a lot less and using his/her time to think about what the question requires, instead of demonstrating lots of psychological knowledge almost all of which is irrelevant. There is almost no AO1 material, certainly not 'basic', which places the answer in Band 1 = 2 marks. If the candidate had gained no AO1 marks, then none of the AO2 material could have been deemed creditworthy.

There are a variety of AO2 points, some not clearly made at all and other which do have some elaboration. It could not be described as 'reasonably effective' and therefore is in Band 2, but significantly better than the very bottom band 'weak, muddled and incomplete'. Therefore, AO2 = 6 marks.

Candidate I – Total for question = 14/30 marks, an average response.

Response to Candidate J

(page 52 of main document)

- (a) Reductionism describes being able to best explain complex phenomena such as behaviour, in more simple processes. This could be in terms of biology, unconscious forces or our environment. **[good use of examples]** Explaining behaviour in terms of genetics, evolution or unconscious forces are forms of internal reductionism **[distinguishing different types of reductionism]** and environmental factors such as social or behaviourist concepts such as conditioning are forms of external reductionism. According to Occam's razor we can best understand complex phenomena by cutting away excess information to find the underlying cause of events. **[could have been used in part (b) as an argument for reductionism, but also relevant where it is, so it is not exported]**

Sufficient for the full 5 marks, it is reasonably thorough, accurate and coherent.

- (b) Psychology fits into a hierarchy of sciences in the order of sociology, psychology, physiology and biochemistry. It is suggested that each can be informed by the other and the most reductionist of the hierarchy is biochemistry. **[good introduction about reductionism, which could be exported to part (a) as it gains no marks in part (b). However, full marks already awarded to part (a)]** The behaviourist explanation reduces complex psychological phenomena to a person's conditioning. According to the behaviourists behaviour that is rewarded will be repeated. This is reductionist as it ignores other factors such as biology and cognition in causing behaviour as well as ignoring 'free will'. **[not a case for reductionism, just a description of a reductionist explanation]** An advantage of this reductionist approach is that it enables psychology to gain credibility as a science. **[AO1: link now made to giving an argument for reductionism]** This form of reductionism allows psychological research to test falsifiable hypotheses such as stimulus response associations. **[AO1: case for reductionism, albeit brief]** It enables psychology to establish cause and effect relationships and this has practical application. **[AO1: again brief]** The notion that behaviour can be explained in terms of conditioning is supported by much empirical research on animals. Skinner found that a pigeon was more likely to press a lever if it was rewarded. This has practical application in the case of schizophrenics and token economies. **[AO1: the comments on animal research related to final sentence which is an elaboration of previous AO1 point about practical applications. Not well expressed]**

Another reductionist explanation is the biological model. The biological model explains behaviour in terms of genetics and biochemistry. The biological model is invaluable in informing our understanding of psychology. **[AO1]** Theories on the biochemical imbalances of psychopathological disorders such as depression and the success of drug treatment highlight the value of such explanations. **[AO1: elaboration of case for reductionism in terms of the value of biological approaches]** However, the success of drug treatment cannot be fully explained by this reductionist perspective. **[AO2]** Drug treatment effects levels of neurotransmitters immediately but can take several weeks to come into effect. **[AO2 elaboration: good use of knowledge from other areas of the specification]**

Therefore this reductionist explanation cannot adequately explain psychopathological disorders in terms of pure biochemical imbalances. **[AO2 further elaboration to justify claim]** Furthermore expressed emotion effects the relapse of schizophrenia which cannot be explained by this reductionist approach. **[AO2 further commentary, synoptic]**

The psychodynamic approach explains behaviour in terms of innate, often sexual/physical forces. The advantage of this reductionist explanation is that it allows us to establish a cause for behaviour **[AO1: using the same point again this time related to the psychodynamic approach]** usually an unresolved conflict in childhood and allows therapy to resolve unconscious conflicts between the id, ego and superego. Another advantage of this approach is that it is individualistic. **[weak AO1, point not explained]** However the extent to which it informs our understanding of psychology is questionable because it is unfalsifiable and unscientific. **[weak AO2, criticisms made but not explained/justified]**

A reductionist approach helps inform our understanding and conduct scientific research. **[AO1, repetition]** However the whole is worth more than the sum of the parts and often, as in the case of schizophrenia, a diathesis-stress model is most appropriate. **[AO2, not clearly explained]**

AO1: The arguments presented for reductionism are somewhat repetitive. They are all centred on why particular approaches may be valuable. These descriptions are generally accurate and reasonably detailed but limited (Band 3) rather than slightly limited (Band 4), giving a mark at the top of Band 3 = 6 marks (out of 10).

AO2: There is very little AO2 material but one segment of this is coherently elaborated. This means that the content is basic (Band 2) but there are elements of the higher bands, moving this up to Band 3 = 7 marks (out of 15).

Note that the AO2 mark for this answer is very similar to the mark given for answer 1 where there were lots of AO2 but none of it was given any elaboration. This shows how crucial elaboration is for good AO2 marks – one AO2 point well elaborated can be as valuable as many AO2 points given brief treatment.

Candidate J – Total for question = 18/30 marks, a good response.

PYA5**SECTION C – PERSPECTIVES: APPROACHES****Question 8****Total for this question: 30 marks**

It has been claimed by some people that there is a growing trend for “body decoration” in young people in Britain today. Many young men and young women now display a wide range of tattoos and have almost every conceivable part of their bodies pierced and adorned with jewellery. How might this be explained?

- (a) Describe how **two** approaches might try to explain the desire for body decoration. *(6 marks + 6 marks)*
- (b) Assess **one** of these explanations of the desire for body decoration in terms of its strengths and limitations. *(6 marks)*
- (c) How would **one** of these approaches investigate the desire for body decoration? *(6 marks)*
- (d) Evaluate the use of this method of investigating the desire for body decoration. *(6 marks)*

It must be clearly appreciated that the Approaches questions are concerned with epistemology rather than ontology, thus the candidate is rewarded for demonstrating knowledge of how a particular approach would endeavour to explore the topic area in question. Answers which focus on particular studies or published accounts should receive credit only insofar as these illustrate an understanding and critical appreciation of the theoretical and methodological orientations of the general approach to the hypothetical example given in the question.

Two possible approaches here are:

- **Behaviourism:** It may be that tattoos would earn admiration from peers. Perhaps the more ‘extreme’ the tattoo, or the greater area of body surface covered the greater the reinforcement. It is also worth noting that it would be reinforcing if it does not meet with the approval of all groups of people who the ‘wearers’ disassociated with. Approval might also be due to a body ‘aesthetic’.
- **Anthropology:** Many cultures and historical tribes use body painting and piercing as forms of identification and to celebrate special occasions or to evoke certain spiritual phenomena. Much of the cultural history is maintained through such ceremonies and rituals.

The method described should clearly be one associated with or appropriate to the approach chosen.

Examples here would be:

- For behaviourism, an experiment could look at a volunteer sample of young people, none of whom had any body decoration. All of these could then be given ‘henna (temporary) tattoo’. Half would then be rewarded by confederates placed in the group, the other half would not. Later participants would be asked to assess their satisfaction with the tattoos.
- Anthropologists tend to use ethnographic methods which involve observations and interviewing which are non-invasive as possible. An anthropologist could compare interviews taken in this culture and another one.

In all parts of the Approaches question candidates are required to engage with the stimulus material, as distinct from presenting pre-prepared material on Approaches. Some candidates may simply add a few appropriate words (such as ‘body decoration’). This tactic is unlikely to raise a candidate’s mark above Band 1 (Basic). On the other hand, some candidates may *shape* their responses in order to address issues in the stimulus material. Such responses could gain full marks depending on the degree of shaping for purpose. The extent to which candidates have used their knowledge to effectively answer the four parts of the question constitutes the merit of their response.

Some candidates may describe a way of **investigating** the phenomena which is clearly appropriate to one approach identified in (a) but operationalises the variables without explicit reference to the stimulus. Such responses should gain credit insofar as they accurately portray methodology and assumptions of the chosen approach.

Question 8(a) Assessment Objective 1

AO1: For description of each approach

Band	Mark allocation	Marks
Band 3	Psychological content is reasonably thorough and accurate . Engagement with the stimulus material is coherent .	6-5
Band 2	Psychological content is limited and generally accurate . Engagement with the stimulus material is reasonable .	4-3
Band 1	Psychological content is basic, sometimes flawed and inaccurate . Engagement with the stimulus material is muddled or there is no meaningful attempt to engage with the stimulus material.	2-0

Question 8 (b) Assessment Objective 2

AO2: For assessment of strengths and weaknesses of one approach

Band	Mark allocation	Marks
Band 3	There is reasonably thorough commentary and evaluation of one of the approaches given in (a). Material has been used in an effective manner. Engagement with the stimulus material is coherent .	6-5
Band 2	There is limited commentary and evaluation of one of the approaches given in (a). Material has been used in a reasonably effective manner. Engagement with the stimulus material is reasonable . <i>If there is partial performance, strengths or limitations is reasonably thorough and engagement with the stimulus material is coherent. Material has been used in an effective manner. Engagement with material is coherent.</i>	4-3
Band 1	There is basic commentary and evaluation of one of the approaches given in (a). The material has been used in a restricted manner. Engagement with the stimulus material is muddled or there is no meaningful attempt to engage with the stimulus material. <i>If there is partial performance, strengths or limitations is limited. Material has been used in a reasonably effective manner. Engagement with the stimulus material is reasonably.</i>	2-0

Question 8 (c) Assessment Objective 2

AO2: For one approach investigating the phenomenon

Band	Mark allocation	Marks
Band 3	There is reasonably thorough commentary in relation to how one of the approaches in (a) might investigate the topic in question. The plausibility of the answer is appropriate . Engagement with the stimulus material is coherent .	6-5
Band 2	There is limited commentary in relation to how one of the approaches in (a) might investigate the topic in question. The plausibility of the answer is reasonably appropriate . Engagement with the stimulus material is reasonable .	4-3
Band 1	There is basic commentary in relation to how one of the approaches in (a) might investigate the topic in question. The plausibility of the answer is largely inappropriate . Engagement with the stimulus material is muddled or there is no meaningful attempt to engage with the stimulus material.	2-0
	If the method is not appropriate to either of the approaches identified in (a) = 0 marks.	

Even if (c) is not appropriate, examiners must read part (d) as it might contain information, which can be exported. Examiners should not rule out therapeutic techniques as ways of investigating in part (c). The marks awarded must depend on plausibility/how candidates have used the material.

Question 8 (d) Assessment Objective 2

AO2: For evaluation of the investigative approach given in (c).

Band	Mark allocation	Marks
Band 3	There is reasonably thorough commentary and evaluation of the method used in (c) to investigate the topic in question. Material has been used in an effective manner. Engagement with the stimulus material is coherent .	6-5
Band 2	There is limited commentary and evaluation of the method used in (c) to investigate the topic in question. Material has been used in a reasonably effective manner. Engagement with the stimulus material is reasonable .	4-3
Band 1	There is basic commentary and evaluation of the method used in (c) to investigate the topic in question. The material in which material has been used is restricted . Engagement with the stimulus material is muddled or there is no meaningful attempt to engage with the stimulus material.	2-0
	If the evaluation is of a method which is not appropriate to either of the approaches in (a) = 0 marks.	

Response to Candidate K

(page 54 of main document)

- (a) The cognitive approach would consider the desire for body decoration to be part of vision. The individual may find tattoos and piercings very appealing to look at therefore he/she would also pierce or tattoo their body in order to be appealing according to their schema. **[Vision is not necessarily a cognitive explanation but some credit can be given to the idea that schema may be involved. The candidate has also made an effort to engage with the stimulus material = 2 marks]**

The behavioural approach would use Bandura's Social Learning Theory, since the people that are decorating their bodies are relatively young they learn through attention – the person with the belly button piercing is very pretty, receives many compliments on the piercing and one can associate with them. This then leads to retention – one remembers that the piercing brought attention. Modelling – now they get their belly button pierced. Reproduction – now one has the piercing one will also receive compliments (vicarious reinforcement). This is also the factor that during adolescence peers are one of your main pressures and you feel the need to do as they do to fit in. **[A reasonable attempts to use knowledge about social learning theory to engage with the behaviour as required. Some muddled understanding as regards attention – this is merely paying attention to another's behaviour, what is actually described is vicarious reinforcement. Thus this can be described as 'generally accurate'. It is also 'limited' rather than 'reasonably thorough' but closer to Band 3 rather than Band2, therefore = 4 marks]**

- (b) The behavioural model is mechanistic, deterministic and reductionist. It assumes that the environment influences behaviour and excludes genetic reasons for behaviour such as altruism. The model also assumes that all humans are quantitatively similar and much research was based on non-human animals. However, social learning theory shows the powerfulness in learning when vicarious reinforcements are involved, and the reductionism allows it to be more objective and to be more easily assessed and discussed. **[The candidate has made no attempt to use this knowledge in context as required by this question. The maximum mark, under such circumstances is 2 for the knowledge that has been displayed]**
- (c) The desire for body decoration can also be explained using classical conditioning in the behavioural approach. The neutral stimuli is the belly piercing or tattoo and when others in the peer group complement the decoration often members of the group will begin to pair the two together (decoration and compliments). Therefore every decoration they see they will begin to think that it is very 'cool' and, for them to receive the same compliments, they will do the same (vicarious reinforcement). This then leads to generalisation and the individual will begin to explore other areas to pierce or tattoo as well. **[Fortunately the candidate did describe the social learning theory as part of the behavioural approach in part (a) so that this is accepted for part (c). However, there is nothing in this paragraph about a method therefore = 0 marks. With a little bit of thought the material could have been turned into an investigation]**

- (d) This method has been proved to work as in the case of 'Little Albert' who feared rats because their presentation was paired with loud noises. This fear then lead to generalisation and Albert began to fear all white furry objects. Operant conditioning also goes hand in hand with classical conditioning and in the case of body decorations the continuous compliments will be reinforcing and lead the individual to pierce or tattoo other parts of their body to gain more compliments. Although this is associated with fear, Pavlov proved classical conditioning to be paired with positive stimuli. For example the dogs were conditioned to salivate on the sound of a buzzer and generalisation lead them to salivate on the sound of similar buzzers. Pavlov also conditioned the dogs to salivate when a picture of a circle was present. Generalisation led them to salivate on presentation of an ellipse. **[This receives 0 marks for several reasons. First it can't gain any credit because the candidate is evaluating the method in (c) which is non-existent. Second, even if there was a method in (c) this is not an evaluation but rather a further commentary on proving behavioural principles – not looking at the strengths and weaknesses]**

Candidate K – Total for question = 8/30 marks, a weak response.

Response to Candidate L

(page 55 of main document)

- (a) The desire for body decoration could be explained in terms of a behaviourist approach. The behaviourist approach suggests that all behaviours are the product of learning through stimulus response mechanisms. In this case having a tattoo or body piercing may be seen as 'cool' and therefore praise would be given which would serve as reinforcement for this behaviour. The attention which is gained from this activity which is a reinforcement will be repeated each time the behaviour is repeated, and this will encourage further repetition. A further reinforcement may be the adrenaline rush before having a procedure which would encourage repetition of behaviour. **[this part of the first explanation is clearly linked to the stimulus material and shows a good grasp of behaviourist concepts. The reference to adrenaline rush may appear biological, but has been used appropriately here as it could be reinforcing]**

An extension of the behaviourist approach is social learning theory. This would propose that this behaviour can be vicariously reinforced. For example, if personalities on the TV are admired for their piercings or tattoos this would serve as a reinforcement for the behaviour the person is watching. Social learning theory also accounts for how behaviours can be formed in the first place – in this case seeing another receiving praise for this behaviour may lead to modeling oneself on this person and therefore replicating their behaviour to try and gain the same reinforcement. **[the candidate has clearly linked social learning theory to behaviourism so both paragraphs can be considered as one explanation. Taken together both paragraphs are well described by the top band: reasonably thorough, accurate and coherent engagement with the stimulus material. There is no temptation to move to the band below (limited, generally accurate and reasonable engagement) therefore = 6 marks]**

An evolutionary/biological approach might suggest that this behaviour is a form of exhibitionism used to try to attract a mate. Evolutionary theory suggests that we are primarily concerned with the survival of our species and therefore reproducing is extremely important. The desire for body art may be a desire to attract attention from the opposite sex. The 'best' tattoo or piercing will draw the most attention. This kind of exhibitionism is evident in many animals who display brightly coloured feathers for example. The evolutionary approach would also explain why this behaviour is only seen in younger people – as these people are at a reproducing age. The fact that the survival of the species, according to this approach is of primary importance would explain why people have tattoos and piercings despite the fact that they can be very painful. **[this second explanation is briefer than the first, but the same descriptors apply. The candidate has used their knowledge of evolutionary factors to present a coherent, accurate and significantly better than limited account of body piercing. One feature that sets this response apart and demonstrates good engagement, is the reference to the behaviour in young people. This part is awarded = 6marks]**

- (b) The behaviourist approach does explain why there would be a 'craze' for body piercing – as the reinforcement for one person doing it may lead to others replicating this behaviour. Social learning is also able to explain the formation of this new behaviour as the media can suggest these behaviours which are then displayed by young people. **[good engagement with stimulus material]** This approach begins to explain why things may go in and out of fashion – it's simply a matter of praise or following others. In criticism it is questionable why people have tattoos as they are so painful. The pain of a tattoo should serve as a punishment and extinguish the behaviour. However the praise for the behaviour may simply outweigh this. **[moving on the weaknesses]** The behaviourist argument is very reductionist and it supposes we are simply a machine to be programmed by conditioning. Finally it doesn't really explain why body art is in the form of tattoos and piercings, why not use henna or hair dye? Does the media really dictate fashion so strictly? **[this response shows how valuable it is to use overarching approaches, such as behaviourism, because it permits a wider scope of material for all parts of the answer. The candidate has covered both strengths and limitations and largely set this in context. The answer is well focused on body art and is effective and reasonably thorough for = 6 marks]**
- (c) The behaviourist approach favours laboratory experiments as it is fairly easy to control the variables and reinforcement stimuli. The behaviourist approach could investigate the desire for body piercing by looking at how 'punishment' changed these views. The experiment would use 3 groups (independent measures) to avoid demand characteristics. One group would be asked to watch a series of films in which people with tattoos and piercings were treated badly, another groups to see films in which they were praised and another group a set of neutral films. After this programme of films each participant would be asked their views on body piercing and tattoos and asked to rate the likelihood of them having body decoration. The average likelihoods from each of the 3 groups could then be compared. This approach would expect to find that the group who watched the negative treatment of the people with body decoration would have the lowest likelihood, followed by the neutral group. It would be necessary to have a representative sample (gender and culture) and the researcher would have to decide whether to include people with tattoos in the sample or to test them separately – as their behaviour has already been formed and reinforced and may not be easily changed. It would be necessary to debrief participants as deception would be needed at the start of the experiment to avoid demand characteristics. **[a very thorough account of how behaviour might be investigated by a behaviourist. The experimental approach is appropriate and the investigation is related to the stimulus material and is plausible. Some elements of the description may appear outside the scope of this part of the question, but in fact the hypothesis is part of the design of an investigation = 6 marks]**
- (d) The lab experiment has several advantages. It is relatively easy to control the independent variable in a lab experiment and to observe and compare the results (dependent variable). It is therefore possible to assume cause and effect and draw conclusions from an experiment. **[no engagement]**

However, this experiment is not very ecologically valid. In the case of body art it is probably reinforcement from friends which makes a difference not the media which is being looked at here. **[not really the media, but reinforcement from strangers, so reasonably point]** There may also be a problem with demand characteristics in this experiment as after watching films on body art a questionnaire's aim may be clear. **[good criticism, set in context]**

A person's reaction to a situation in real life is different to in a lab - might be more sensible to measure the opinions of the friends of people with and without body art to determine what effect reinforcement has. **[fair way to offer criticism by suggesting alternatives]** There may be some minor ethical problems as deception would be necessary to avoid demand characteristics but this would be avoided with debriefing. **[this point has been made in part (c)]**

Some elements of this part of the answer are Band 3 (effective and coherent engagement) whereas others are Band 1 (no engagement). There is more Band 3 type material, so = 5 marks.

Candidate L – Total for question = 29/30 marks, an excellent response.