

Psychology Paper 4 Mark Scheme

Question Number	Answer	Mark
1(a)(i)	<p style="text-align: center;">AO1 (2 marks)</p> <p>One mark for identifying a validity consequence and one mark for justifying it as a consequence.</p> <p>For example:</p> <p>Subjective nature of the disorder's symptoms (1) may lead to a diagnosis that's inappropriate (1).</p> <p>Look for other reasonable marking points.</p>	(2)

Question Number	Answer	Mark
1(a)(ii)	<p style="text-align: center;">AO1 (2 marks)</p> <p>One mark for identifying a reliability consequence and one mark for justifying it as a consequence.</p> <p>For example:</p> <p>Different clinicians may have a different view as to what constitutes a disorder (1) and therefore the diagnosis may be inconsistent (1).</p> <p>Look for other reasonable marking points.</p>	(2)

Question Number	Answer	Mark
1(b)	<p style="text-align: center;">AO3 (2 marks)</p> <p>One mark for identifying a reason and one mark for justifying the reason.</p> <p>For example:</p> <p>The ICD is the responsibility of the World Health Organization and has a more global focus than the DSM (1), therefore it has more generalisability to all cultures (1).</p> <p>Look for other reasonable marking points.</p>	(2)

Question Number	Answer	Mark
1(c)(i)	<p style="text-align: center;">AO2 (1 mark)</p> <p>One mark for giving the correct percentage to two decimal points.</p> <p>$(305/505) \times 100 = 60.40\%$</p> <p>Reject all other answers.</p>	(1)

Question Number	Answer	Mark
1(c)(ii)	<p style="text-align: center;">AO2 (2 mark)</p> <p>One mark for giving the calculation: $98 - 31 (67) / 305 \times 100 =$</p> <p>One mark for giving the percentage to two decimal points: 21.97%</p> <p>Accept other appropriate calculations.</p> <p>Award two marks for the correct answer with no calculation.</p>	(2)

Question Number	Answer	Mark
1(d)	<p style="text-align: center;">AO1 (1 mark)</p> <p>One mark for giving the ratio for 0.001.</p> <p>1:1 000 or one in a thousand.</p> <p>Reject all other answers.</p>	(1)

Question Number	Answer	Mark
1(e)	<p style="text-align: center;">AO3 (2 marks)</p> <p>One mark for a point relating to bias in the study and one mark for justification.</p> <p>For example:</p> <p>Only the disorders that were in the list for comment on by the mental health professionals could be commented on (1). For example gender identity disorder had a high number of comments about removal, whereas other disorders might have been even higher (1).</p> <p>Look for other reasonable marking points.</p>	(2)

Question Number	Answer	Mark
1(f)	<p style="text-align: center;">AO2 (2 marks), AO3 (2 marks)</p> <p>One mark for each advantage and one mark for justification of each advantage in the context of the study.</p> <p>For example:</p> <p>The aim was to find out the mental health professionals' views about diagnoses, not only which could or should be removed but also why (1). Qualitative data from open-ended questions would be useful as that would be a good way to find out the rationale behind the choice of which diagnoses to remove (1).</p> <p>The study was done in eight different countries and asking open-ended questions means fewer limitations compared with closed questions (1) and so more likelihood of getting the different cultural views (1).</p> <p>Look for other reasonable marking points.</p>	(4)

Question Number	Answer	Mark
2(a)	<p style="text-align: center;">AO2 (1 mark)</p> <p>One mark for schizophrenia.</p> <p>Reject any other disorder.</p>	(1)

Question Number	Answer	Mark
2(b)	<p style="text-align: center;">AO2 (4 marks)</p> <p>Two marks for each symptom related to schizophrenia in the context of the study other than hallucinations. One mark for a simple description of each symptom and an additional elaboration mark for each symptom.</p> <p>For example:</p> <p>As well as hallucinations the psychologist might listen out for thought insertion which is the feeling that your thoughts are not your own (1). The psychologist might see if the client talks about someone else putting ideas in their head (1).</p> <p>Another symptom is delusions which are when someone believes something that is false (1). The psychologist might look out for mention of the flicker of a television seeming to have meaning for the client (1).</p> <p>Look for other reasonable marking points.</p>	(4)

Question Number	Answer	Mark
2(c)	<p style="text-align: center;">AO2 (2 marks), AO3 (2 marks)</p> <p>One mark for each reason of drug therapy being suggested linked to the client, up to two marks. Two marks for evaluation points about the reason(s).</p> <p>For example:</p> <ul style="list-style-type: none"> Hallucinations may come from an excess of dopamine at the synapse (1). This is supported by Reynolds (1994) who suggests that there is a correlation between the dosage of antipsychotic drug and dopamine receptors in the brain (1). The psychologist might have read that new information shows glutamatergic, GABAergic and cholinergic neurotransmitters are also implicated in schizophrenia (1). Evidence that drugs might target these areas comes from Coyle et al. (2010) who use findings from studies that show a pathologic circuit is involved (1). <p>Look for other reasonable marking points.</p>	(4)

Question Number	Answer	Mark
3(a)	<p style="text-align: center;">AO1 (3 marks)</p> <p>One mark for each descriptive point related to the procedure of Rosenhan's (1973) study, up to a maximum of 3 marks.</p> <p>For example:</p> <ul style="list-style-type: none"> • Eight sane people with different backgrounds gained admission into 12 hospitals by calling the hospital for an appointment (1). • Individually, a pseudo-patient presented to the hospital saying they had been hearing voices that were unclear, saying things like 'empty' and 'hollow' (1). • After that the pseudo-patient answered any questions truthfully using their own background and life history (1). <p>Look for other reasonable marking points.</p>	(3)

Question Number	Answer	Mark
3(b)	<p style="text-align: center;">AO3 (4 marks)</p> <p>One mark for one strength focusing on generalisability and one mark for justification of the strength; one mark for one weakness focusing on generalisability with one mark for justification of the weakness.</p> <p>For example, a strength:</p> <ul style="list-style-type: none"> • The eight pseudo-patients were called a 'varied' group, which adds to possible generalisability of the findings (1) because the sample included people from different backgrounds and ages, including one psychology graduate in his 20s (1). <p>For example, a weakness:</p> <ul style="list-style-type: none"> • The researcher himself was one of the eight in the sample and, knowing the full aims of the study, might have acted differently from the other eight (1), which means generalisability of the findings is questioned as the data gathering from one of the participants may have shown researcher bias (1). <p>Look for other reasonable marking points.</p>	(4)

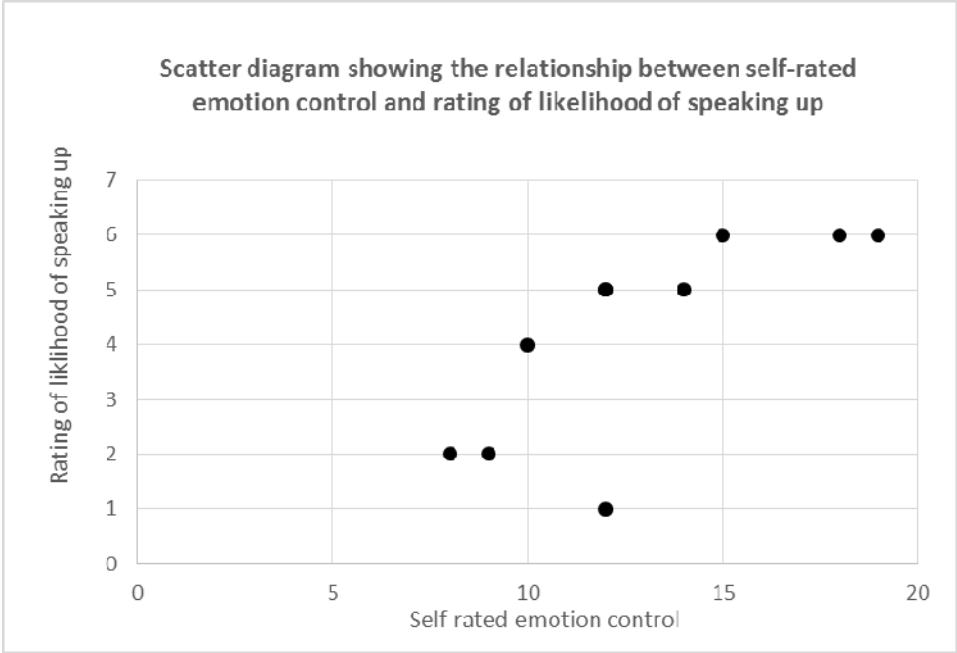
Question Number	Indicative content	Mark
4	<p data-bbox="387 349 1118 383">AO1 (6 marks), AO2 (4 marks), AO3 (6 marks)</p> <p data-bbox="325 416 730 450">AO1 - unipolar depression</p> <ul data-bbox="325 450 1177 954" style="list-style-type: none"> • Antidepressants work by affecting neurotransmitters in the brain, such as serotonin. • There are side effects such as feeling sick and have sleep problems. • Selective serotonin reuptake inhibitors (SSRIs) work by affecting the levels of serotonin in the brain. • Tricyclic antidepressants are less used currently and they are sometimes used for severe depression. They include amitriptyline and imipramine. • Monoamine oxidase inhibitors (MAOIs) are harder to take as some foods must be avoided, examples include phenelzine (Nardil). • CBT can be used for someone with depression, to look at their thinking processes and to work on vicious circles in thinking. <p data-bbox="325 987 692 1021">AO1 - anorexia nervosa</p> <ul data-bbox="325 1021 1177 1514" style="list-style-type: none"> • Depression, anxiety, self-harm and low self-esteem can be associated with anorexia nervosa. • People with anorexia nervosa often hide it as part of the desire to be thin. Those around them tend to uncover the illness and/or persuade someone to get help. • Treatment tends to be psychological therapy, supervised weight gain and medication. • SSRIs (selective serotonin reuptake inhibitors) are used in anorexia nervosa alongside psychological therapies, for depression and anxiety. • An example is olanzapine which can help in anxiety about weight and diet. Cyproheptadine hydrochloride is also a weight-inducing drug that can be used • CBT focuses on unhealthy and unrealistic thoughts about food and diet. <p data-bbox="325 1547 1018 1581">AO2 - unipolar depression/anorexia nervosa</p> <ul data-bbox="325 1581 1155 1984" style="list-style-type: none"> • Randomised controlled trials (RCTs) are useful because the control gives a baseline measure against which effectiveness can be measured. • Psychologists, both researchers and practitioners, generally aim for evidence-based therapies, because science gives reliable findings. • CBT is also measured using randomised controlled trials and CBT is recommended in the NICE guidelines. • Possibly psychologists prefer CBT because it treats the whole person and the issues leading to the depression/anorexia, rather than using medication that might not address the cause. 	(16)

Question Number	Indicative content	Mark
4 (cont'd)	<p>AO3 - unipolar depression</p> <ul style="list-style-type: none"> • Unipolar depression, and anorexia because it can involve depression, can be caused by neurotransmitter issues (such as lack of serotonin) and so drug therapy might affect the cause, which suggests it is likely to be effective. • The idea that CBT is preferred because it addresses the cause of mental disorders like unipolar depression and anorexia nervosa is not upheld if drug therapy, adjusting neurotransmitter functioning, does address the cause. Drug therapy can be as effective as CBT if affecting the cause is a measure. • The NHS suggests that antidepressants are not that effective for mild depression but they can relieve symptoms quickly particularly in severe depression. • The Royal College of Psychiatrists suggests that between 50% and 65% of people taking an antidepressant will improve, compared to 25% to 30% of a control group taking a placebo. This shows a placebo effect to an extent, although more of an effect from taking antidepressants (drug therapy). • The National Institute of Mental Health (NIMH) study in 1989 put people with major depression (a severe form) into four groups. They found that most in all four groups improved. For less severely depressed people (60% of those involved), all four treatments were equally effective. This suggests that both drug therapy and CBT can be effective. • However, in the NIMH study for those who were severely depressed (40% of those involved) it was the antidepressant drug therapy that was most effective. 76% improved on imipramine and just 18% improved on the placebo. This suggests that it is drug therapy that is effective. <p>AO3 - anorexia nervosa</p> <ul style="list-style-type: none"> • The NHS mentions that SSRIs have side effects that can be serious for those who are seriously underweight, so psychological therapies like CBT are preferred. • In a randomly assigned study (reported by Halmi et al., 1986), cyproheptadine had a small effect in that it reduced the number of days someone took to get to normal weight - although looking at bulimia versus anorexia, cyproheptadine did significantly more for the anorexia group compared with those having the tricyclic depressant or the placebo. To an extent this means drug therapy was effective. 	

Question Number	Indicative content	Mark
4 (cont'd)	<ul style="list-style-type: none"> • It tends to be thought that a combination of CBT and drug therapy is the best option as found using RCTs (e.g. Flament et al., 2011; Hay and Claudino, 2011; Reinblatt et al., 2008). • Bowers and Ansher (2008) found that using cognitive therapy was effective (using before and after measures, not RCTs) although weight restoration was used as well. It was found that all 32 patients involved in the study became less depressed and their eating behaviour was affected too. This effect was found again at the one-year follow-up, suggesting some longevity in the effectiveness of the treatment. • Kishi et al. (2012) carried out a meta-analysis using 8 studies and 221 patients and found that anti psychotics were not effective for anorexia nervosa, so not all medication works. • For those who have gained a lot of the weight they need to regain, SSRIs (fluoxetine) helps recovery, but perhaps are more helpful for addressing OCD issues rather than helping with weight. <p>Look for other reasonable marking points.</p>	

Level	Mark	Descriptor
AO1 (6 marks), AO2 (4 marks), AO3 (6 Marks) Candidates must demonstrate an equal emphasis between knowledge and understanding versus assessment/conclusion in their answer. Application to the context is capped at maximum 4 marks.		
	0	No rewardable material.
Level 1	1–4 marks	Demonstrates isolated elements of knowledge and understanding. (AO1) Provides little or no reference to relevant evidence from the context (scientific ideas, processes, techniques and procedures). (AO2) Generic assertions may be presented. Limited attempt to address the question. (AO3)
Level 2	5–8 marks	Demonstrates mostly accurate knowledge and understanding. (AO1) Line(s) of argument occasionally supported through the application of relevant evidence from the context (scientific ideas, processes, techniques and procedures). (AO2) Candidates will produce statements with some development in the form of mostly accurate and relevant factual material, leading to a generic or superficial assessment being presented. (AO3)
Level 3	9–12 marks	Demonstrates accurate knowledge and understanding. (AO1) Line(s) of argument supported by applying relevant evidence from the context (scientific ideas, processes, techniques and procedures). Might demonstrate the ability to integrate and synthesise relevant knowledge. (AO2) Arguments developed using mostly coherent chains of reasoning, leading to an assessment being presented which considers a range of factors. Candidates will demonstrate understanding of competing arguments/factors but unlikely to grasp their significance. The assessment leads to a judgement but this may be imbalanced. (AO3)
Level 4	13–16 marks	Demonstrates accurate and thorough knowledge and understanding. (AO1) Line(s) of argument supported throughout by sustained application of relevant evidence from the context (scientific ideas, processes, techniques or procedures). Demonstrates the ability to integrate and synthesise relevant knowledge. (AO2) Displays a well-developed and logical assessment, containing logical chains of reasoning throughout. Demonstrates an awareness of the significance of competing arguments/factors leading to a balanced judgement being presented. (AO3)

Question Number	Answer	Mark
5(a)	<p style="text-align: center;">AO2 (2 marks)</p> <p>One mark for the statement of what is expected as long as one of the variables is operationalised (and is directional). Two marks for the statement of what is expected as long as both the variables are operationalised (and is directional).</p> <p>For example:</p> <p>The more someone <i>says</i> they can control their emotions the more they are likely to speak up (1).</p> <p>The higher the <i>self-report score</i> for ability to control emotions, the higher the <i>rating</i> about the likelihood of speaking up about issues of concern at work (2).</p> <p>Look for other ways of expressing the directional hypothesis.</p>	(2)

Question Number	Answer	Mark
5(b)	<p style="text-align: center;">AO2 (2 marks)</p> <p>One mark for accurate scatter diagram with all plots for both variables correct. One mark for the title and both axes labelled correctly Does not have to have the line of best fit.</p> <p>For example:</p> <div style="text-align: center;">  <p>Scatter diagram showing the relationship between self-rated emotion control and rating of likelihood of speaking up</p> </div> <p>Y axis: Rating of likelihood of speaking up. X axis: Self-report of control over emotions.</p> <p>Accept reversed axes.</p>	(2)

Question Number	Answer	Mark																								
5(c)	<p style="text-align: center;">AO2 (4 marks)</p> <p>One mark for correct d results (no mark if not correct or not completed).</p> <p>One mark for correct d² results (no mark if not completed).</p> <p>One mark for substituting into the equation (using the Σ found if incorrect is okay) (no mark if not substituted).</p> <p>One mark for the correct answer (two significant figures as that is expected) (no mark if answer not given).</p> <table><tr><th>d</th><th>d²</th></tr><tr><td>0</td><td>0</td></tr><tr><td>-4</td><td>16</td></tr><tr><td>1</td><td>1</td></tr><tr><td>1</td><td>1</td></tr><tr><td>0.5</td><td>0.25</td></tr><tr><td>-1</td><td>1</td></tr><tr><td>1</td><td>1</td></tr><tr><td>-1</td><td>1</td></tr><tr><td>1.5</td><td>2.25</td></tr><tr><td>1</td><td>1</td></tr><tr><td></td><td>24.5</td></tr></table> <p>$1 - \frac{6 \sum d^2}{n(n^2 - 1)}$</p> <p>$1 - \frac{6 \times 24.5}{10(100-1)} = 1 - \frac{6 \times 24.5}{10 \times 99} = 1 - \frac{147}{990}$</p> <p>$= 1 - 0.147147 = 0.852853 = 0.85$</p> <p>Accept 0.853.</p>	d	d ²	0	0	-4	16	1	1	1	1	0.5	0.25	-1	1	1	1	-1	1	1.5	2.25	1	1		24.5	(4)
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Question Number	Answer	Mark
5(d)	<p style="text-align: center;">AO3 (4 marks)</p> <p>One mark for each point about how useful Spearman's rank correlation co-efficient is, up to a maximum of two marks Two marks for linked justification.</p> <p>For example:</p> <p>It shows the direction of the correlation stating whether it is positive or negative (1) which helps to show the direction of the relationship (1).</p> <p>The results can be used to find if the null hypothesis can be rejected (1) which helps to see the level of significance at which the result might be due to chance (1).</p> <p>Look for other reasonable marking points.</p>	(4)

Question Number	Answer	Mark
5(e)	<p style="text-align: center;">AO3 (4 marks)</p> <p>One mark for an improvement and one mark for a justification of the improvement, up to four marks.</p> <p>For example:</p> <p>The study gathered interval data (time) which enables a stronger inferential statistical test to be carried out (1) which leads to greater confidence in your results (1).</p> <p>A field experiment has more control over extraneous variables (1) leading to a greater confidence as to cause and effect (1).</p> <p>Look for other reasonable marking points.</p>	(4)

Question Number	Answer	Mark
6	<p style="text-align: center;">AO1 (2 marks), AO3 (2 marks)</p> <p>One mark for an advantage of using animals in laboratory studies and one mark for justifying each advantage of using animals instead of humans, up to a maximum four marks.</p> <p>For example:</p> <ul style="list-style-type: none"> • Experiments can be carried out on animals that would not be allowed on humans because of human ethical guidelines. Humans should use the means available to improve their health and well-being and that can include using animals in laboratory experiments (1). • Studies that can give results benefitting the largest number of people are justified because of the principle of doing the greatest good (1). The use of animals is justified because they are similar enough to humans for findings to be generalised to humans and humans are not harmed (1). <p>Look for other reasonable marking points.</p>	(4)

Question Number	Indicative content	Mark
7	<p style="text-align: center;">AO1 (4 marks), AO2 (4 marks)</p> <p>AO1</p> <ul style="list-style-type: none"> • Social learning theory explains aggression using the idea of observational learning. We use attention, retention, reproduction and motivation to produce learned behaviour. • Aggression is linked to brain processing such as serotonin, dopamine and norepinephrine having a role in aggression. • Neurotransmitter functioning can work to prevent inhibition of aggression or can lead to aggression more directly. • Activity in parts of the brain is linked to aggression such as the prefrontal cortex and the limbic system/amygdala. • The theory of natural selection suggests that we have evolved traits to survive and aggression, or lack of aggression, might be a survival traits. <p>AO2</p> <ul style="list-style-type: none"> • Bandura's studies (1961, 1963, 1965) showed that children who watched aggression tended to be more likely to behave aggressively than those who did not watch aggression, which is evidence for social learning taking place and backs up the claims of this study. • The boys who watched violent video clips in the study were said to show more 'emotional desensitisation' in the brain, which supports the social learning explanation in that watching violent video clips affected their judgement of aggression levels. • The source suggests that the way the brain in which the brain processes information can be affected by watching a series of video clips that show violence, which might be evidence for neurotransmitter functioning affecting aggressive behaviour. • The lateral orbitofrontal cortex is mentioned as showing less activity the more clips that are watched which is evidence for brain structure and functioning affecting aggressive behaviour. • Evolution might have led to the reactions of the boys to watching the violent clips in that there is a mechanism perhaps for reducing sensitivity and 'blunting' the brain if there is overload. <p>Look for other reasonable marking points.</p>	(8)

Level	Mark	Descriptor
AO1 (4 marks), AO2 (4 marks) Candidates must demonstrate an equal emphasis between knowledge and understanding versus application in their answer.		
	0	No rewardable material.
Level 1	1-2 marks	Demonstrates isolated elements of knowledge and understanding. (AO1) Provides little or no reference to relevant evidence from the context (scientific ideas, processes, techniques and procedures). (AO2)
Level 2	3-4 marks	Demonstrates mostly accurate knowledge and understanding. (AO1) Discussion is partially developed, but is imbalanced or superficial occasionally supported through the application of relevant evidence from the context (scientific ideas, processes, techniques and procedures). (AO2)
Level 3	5-6 marks	Demonstrates accurate knowledge and understanding. (AO1) Arguments developed using mostly coherent chains of reasoning. Candidates will demonstrate a grasp of competing arguments but discussion may be imbalanced or contain superficial material supported by applying relevant evidence from the context (scientific ideas, processes, techniques and procedures) (AO2)
Level 4	7-8 marks	Demonstrates accurate and thorough knowledge and understanding. (AO1) Displays a well-developed and logical balanced discussion, containing logical chains of reasoning. Demonstrates a thorough awareness of competing arguments supported throughout by sustained application of relevant evidence from the context (scientific ideas, processes, techniques or procedures). (AO2)

Question Number	Indicative content	Mark
8	<p style="text-align: center;">AO1 (8 marks), AO3 (12 marks)</p> <p>AO1</p> <ul style="list-style-type: none"> • Reductionism is part of doing science. • It means looking at the parts of something when studying it. • Holism is looking at the whole thing (such as a behaviour) and is the opposite of reductionism. • Science involves a theory, deriving a hypothesis from the theory, testing against reality and then amending the theory accordingly. • Testing against reality (empirical) testing involves testing parts of behaviour. • To test something it has to be measurable and parts of the whole are measurable. • Raine et al. (1997) used brain-scanning techniques to assess aggression in 'murderers'. • The case of Henry Molaison (HM) involved a lot of detail about his whole life. <p>AO3</p> <ul style="list-style-type: none"> • Biological psychology looks at parts such as structures in the brain which would be hard to study as a whole as it is so complex. • Learning theories look at parts such as single behaviours like a pigeon pecking at a disk because observable behaviour was required to be studied in a scientific way. • Experimental method involves setting up an independent variable, measuring a dependent variable and controlling all other variables, and the IV and DV are parts of a whole behaviour usually so that it is replicable • Bandura and others (1961, 1963, 1965) used experiments to study aggression in young children and focused on measuring their play including their hitting of a Bobo doll. This measures aggression by acts of hitting a doll, which is reductionist and not valid. • Milgram (1963) measured obedience by how far a person would go in giving electric shocks (which they thought were real) to another, which is reducing obedience to a specific and possibly unnatural behaviour. • Case studies of brain-damaged patients (such as Henry Molaison and Schmolck et al.'s (2002) study) take a more holistic view which will include experiences and social interactions. • However, they focus on neuroimaging of brain deficits, which is only part of what makes up behaviour so again lacking in validity. • Looking at neuro transmitter functioning can lead to biological treatments which has been shown to be effective. 	(20)

Question Number	Indicative content	Mark
8 (cont'd)	<ul style="list-style-type: none"> • Rosenhan (1973) had participants immersed in a psychiatric hospital environment looking at the whole picture which was the only way to find out how they would be treated by the staff. • Watson and Rayner (1920) reduced 'little Albert's' fear to measured reaction like crying and falling over which made a phobia measurable to see what caused it, and looking at causes is hard doing it any other way. • However, using the reductionist approach and a specific child means that the conclusions are hard to generalise. • Using a reductionist approach gives a study scientific credibility in that an operationalised hypothesis can be formulated and empirically tested to develop scientific knowledge. <p>Look for other reasonable marking points.</p>	

Level	Mark	Descriptor
A01 (8 marks), A03 (12 marks) Candidates must demonstrate a greater emphasis on assessment/conclusion versus knowledge and understanding in their answer. Knowledge and understanding is capped at maximum 8 marks.		
	0	No rewardable material.
Level 1	1-4 marks	Demonstrates isolated elements of knowledge and understanding. (A01) Generic assertions may be presented. Limited attempt to address the question. (A03)
Level 2	5-8 marks	Demonstrates mostly accurate knowledge and understanding. (A01) Candidates will produce statements with some development in the form of mostly accurate and relevant factual material, leading to a generic or superficial assessment being presented. (A03)
Level 3	9-12 marks	Demonstrates accurate knowledge and understanding. (A01) Arguments developed using mostly coherent chains of reasoning, leading to an assessment being presented which considers a range of factors. Candidates will demonstrate understanding of competing arguments/factors but unlikely to grasp their significance. The assessment leads to a judgement but this will be imbalanced. (A03)
Level 4	13-16 marks	Demonstrates accurate and thorough knowledge and understanding. (A01) Displays a logical assessment, containing logical chains of reasoning throughout which consider a range of factors. Demonstrates an understanding of competing arguments/factors but does not fully consider the significance of each which in turn leads to an imbalanced judgement being presented. (A03)
Level 5	17-20 marks	Demonstrates accurate and thorough knowledge and understanding. (A01) Displays a well-developed and logical assessment, containing logical chains of reasoning throughout. Demonstrates a full understanding and awareness of the significance of competing arguments/factors leading to a balanced judgement being presented. (A03)