

Scheme of work for week 1

Session 1: animal lab studies looking at drugs

 **Link: methodology in Issues and Debates**

Session suggestions	Suggested resources	Homework
<ul style="list-style-type: none"> ● Use study templates for two animal lab studies looking at how drugs work (if the studies relate to the drugs of interest they can be useful later) ● Review synaptic transmission from AS (brainstorm or short test) ● Review ethics of using animals from AS (brainstorm or short test) ● Or in groups one prepares summary of synaptic transmission (especially neurotransmitters) from AS and one reviews animal guidelines ● Footage of use of animals possibly — if thought ethical ● Draw conclusions about biology and effects of drugs. Choose to focus on heroin and/or the other drug chosen for the course ● If doing posters for methods, add animal lab studies and evaluation ● Consider using the use of animals to study humans as a key issue (key issue template) 	<ul style="list-style-type: none"> ● Study templates (two) ● AS PowerPoint on ethics ● Textbook or internet to find two animal studies and to review the AS material on synaptic transmission and animals and ethics ● Possibly poster materials ● Key issue template 	<ul style="list-style-type: none"> ● HW3.1 (p. 120, Q1 and Q2) ● HW3.2 (p. 120, Q4) ● HW3.3 (p. 120, Extension Q1 and Extension Q2)

Session 2: Blättler et al. (2002)



Link: methodology in Issues and Debates

Session suggestions	Suggested resources	Homework
<ul style="list-style-type: none"> ● Use study template for Blättler et al. and evaluate ● Do a poster of the methods of Blättler et al. and evaluation of the methods ● Compare animal lab methods and Blättler et al.'s methods ● Write down findings from Blättler et al. and the animal studies (depending on choice) about heroin (e.g. effects, withdrawal, dependence, tolerance) — present to the class 	<ul style="list-style-type: none"> ● Study template ● Poster materials ● Materials for presentation (possibly PowerPoint) 	<ul style="list-style-type: none"> ● HW3.4 (p. 147, Q2 and Q4)

Session 3: biological explanation for substance misuse

Session suggestions	Suggested resources	Homework
<ul style="list-style-type: none"> ● Recall synaptic transmission (AS) and define the terms using a worksheet ● Use study templates for two or more studies showing biological explanations for heroin or nicotine (one could be one of the animal studies used in the first session if that fits) ● In groups give strengths and weaknesses of the research methods used and present issues 	<ul style="list-style-type: none"> ● Worksheet on defining terms to do with synaptic transmission ● Study templates (two) 	<ul style="list-style-type: none"> ● HW3.5 (p. 138, Q1)

Application: Health psychology

Session: 1

Date:

Pages for question: p. 120, Q1 and Q2

Pages for answer: pp. 111–17 (and AS material)

Objectives: To test understanding of the use of animal laboratory studies in research into drugs

Homework questions

- 1 Describe one way in which animals have been used in the laboratory to research drugs. (4 marks)
- 2 Outline one practical strength and one practical weakness when using animals in psychology. (4 marks)

Comments on questions

- 1 One way is needed: you can give either an actual example of research done so the answer is about researching drugs, or a general example of what is done so the answer is about methodology. Remember this is about animals in a laboratory setting.
- 2 This question is not about ethics but about practical issues, so avoid focusing on ethical issues. Saying that there are ethical issues to overcome, which can be a practical problem, is a good point but perhaps best avoided so that it is clear that your answer is about one practical strength and one practical weakness of using animals. Assume 2 marks for each part (the strength and the weakness).

Homework answer, question 1

Animals have been used to show that renal disease is more connected to cocaine use than heroin use. Mice are given either heroin or cocaine and the dose is measured. ✓ This is done using various doses that are recorded. Their renal function is tested periodically to record any effects that being injected with heroin or cocaine has on renal function. ✓ The findings show that the mice are more affected by cocaine than heroin, with regard to renal function. There are many controls in the experiments such as the comparability of the mice with regard to their feeding and breeding. ✓ The only difference is between heroin or cocaine and everything else stays the same so that it is the difference between the drugs that causes the renal disease. ✓

Comments on the answer, question 1

This answer is enough for the marks and the 'way' chosen is a specific study that also includes a specific methodology (injecting either heroin or cocaine and measuring renal function).

Homework answer, question 2

One practical strength of using animals is that animals are easier to control in a laboratory than humans. ✓ For example, feeding, drinking and sleeping habits can be controlled more easily, whereas there are stronger ethical principles with humans and such control would not be within ethical guidelines for humans. ✓

One practical weakness of using animals in laboratories is that they cannot be asked questions and cannot give information, for example about their cognition. ✓ So some studies are not possible, such as scanning to see where 'language' takes place in the brain. ✓

Comments on the answer, question 2

Here the full marks are given, 1 mark for the actual point and then one for an example. Notice that quite a bit has to be said for the 2 marks — giving an example helps to elaborate and also shows understanding, so is worthwhile.

Application: Health psychology

Session: 1

Date:

Pages for question: p. 120, Q4

Pages for answer: pp. 111–17

Objectives: To test understanding of the use of animal laboratory studies in research into drugs

Homework question

Outline one example of animals being used in the laboratory to research into drugs. (3 marks)

Comments on the question

This question is very similar to Q1 on page 120, used in HW3.1, and the same answer fits. This question, however, suggests an actual example rather than a way of doing the study, whereas Q1 allows for either interpretation. As the answer for HW3.1 drew on an actual example, it is used again here. Note that what you learn can be used for more than one question — the important thing is to put the right material in the right place for the right question.

Homework answer

Animals have been used to show that renal disease is more connected to cocaine use than heroin use. Mice are given either heroin or cocaine and the dose is measured. ✓ This is done using various doses that are recorded. Their renal function is tested periodically to record any effects that being injected with heroin or cocaine has on renal function. ✓ The findings show that the mice are more affected by cocaine than heroin, with regard to renal function. There are many controls in the experiments such as the comparability of the mice, with regard to their feeding and breeding. ✓ The only difference is between heroin or cocaine and everything else stays the same so that it is the difference between the drugs that causes the renal disease. ✓

Comments on the answer

This answer gets the marks as it clearly gives one example, including information on what was done with what result.

Application: Health psychology

Session: 1

Date:

Pages for question: p. 120, Extension Q1 and Extension Q2

Pages for answer: pp. 111–20 (and AS material)

Objectives: To test understanding of how research is carried out into the effects of drugs, using both humans and animals, and to test understanding of validity and reliability issues in research

Homework questions

- 1 Compare two research methods using humans to study the effects of drugs, including considering issues of validity and reliability. (12 marks)
- 2 Discuss practical and ethical issues with regard to using animals in laboratory studies when researching into drugs. (12 marks)

Comments on the questions

- 1 Two methods using humans are needed and these have to be compared. This is an extension question and you may want to draw on other areas of the application as well as your AS understanding of methods. Remember to include both validity and reliability in your comparisons. Comparing means giving similarities and differences.
- 2 In this question both practical and ethical issues with regard to animals are asked for. This essay question needs a good structure, so perhaps deal first with practical and then with ethical issues. Also give practical strengths and weaknesses as well as ethical strengths and weaknesses so that there is a balance. Remember to use appropriate terminology as well.

Points that can be included in a homework answer for question 1

- Interviewing and questionnaires are two ways of using humans to study drugs.
- Both involve asking questions about drug use and misuse and both are ways of doing surveys.
- Interviews can be structured, and these then involve using a questionnaire but asking someone face-to-face and recording the answers for them rather than letting them complete the questionnaire on their own. So the two methods, if the interview is structured, are very alike indeed.
- Interviews can be unstructured, where there is a schedule of what needs to be found out but the questions are varied according to the replies of the respondent. A questionnaire involves set questions where there is no variation and so the two methods are different in this way. Interviews in this sense are more valid as they can be adapted to suit the respondent so more 'real-life' data can be gathered. Questionnaires limit the possible responses so have less validity.
- Questionnaires have set questions and are set out in a particular way with space for answers. This means that each participant has the same experience so the study can be repeated and tested for reliability. Interviews, especially unstructured ones, can involve exploring specific areas depending on the respondent and so are less replicable and thus less reliable as a research method than questionnaires.
- Interviews involve a researcher asking questions and different researchers can be involved, or different researcher behaviour might occur on different occasions, so they may lack reliability.

Comments on the answer, question 1

Remember for essays to structure your answer and to use appropriate terminology. Do not use bullet points as done above. However, the points made above are clearly comparison points (except for the first introductory point) and are made clearly using appropriate terms. Both validity and reliability are included so the above successfully answers the question.

Points that can be included in a homework answer for question 2

- One practical strength of using animals is that animals are easier to control in a laboratory than humans.
- For example, feeding, drinking and sleeping habits can be controlled more easily, whereas there are stronger ethical principles with humans and such control would not be within ethical guidelines for humans.
- One practical weakness of using animals in laboratories is that they cannot be asked questions and cannot give information, for example about their cognition if any.
- So some studies are not possible, such as scanning to see where 'language' takes place in the brain.
- One ethical strength of using animals is that there are official guidelines that have to be followed.
- For example, the minimum number of animals must be used for a study and where necessary anaesthetic must be administered by a qualified person.
- One ethical weakness of using animals is that some say it is speciesism and that is as bad as racism.
- We have no right to use animals in this way when they are different species just as we are.

Comments on the answer, question 2

The points here are relevant and will gain marks; however, there is not enough for full marks. Also, by giving a list like this the argument of the essay is lost, so use the above points and others and then form them into an argument about the use of animals in laboratory studies. Another important problem with the above is that it is not focused on drugs, and you need to show this focus somewhere at least in the essay.

Application: Health psychology

Session: 2

Date:

Pages for question: p. 147, Q2 and Q4

Pages for answer: pp. 138–42

Objectives: To test understanding of Blättler et al. (2002)

Homework questions

- 2 Describe the findings (results and/or conclusions) of Blättler et al. (2002). (4 marks)
- 4 Evaluate Blättler et al. (2002). (6 marks)

Comments on questions

- 2 Here you are asked to describe just the findings of the study, so you will need quite a bit of detail for the 4 marks.
- 4 This is about evaluating the study, not describing it. In this homework sheet you have just described some aspects of the study but this might not happen in the exam. If asked to evaluate, even if you have not described what the question is about, just evaluate as asked. Remember when evaluating a study it is helpful to use GRAVE (generalisability, reliability, application, validity, ethics).

Homework answer, question 2

The aim was to look at maintenance treatment for heroin users who also used cocaine. The idea was to see if maintenance treatment (i.e. prescribing heroin for heroin users) affected the cocaine use with regard to heroin users who also used cocaine. The study also looked to see if drop-out was higher in heroin users who also used cocaine than in those who used just heroin. The study was about poly-drug use.

The study used baseline data using a group of heroin users on a maintenance programme (PROVE). One cohort was followed over the whole study and various measures were taken to test for their cocaine use over the study, as well as other testing and gathering of data. Data were gathered mainly by interviewing and use of urine tests.

It was found that, after 18 months on the programme, of those who said they were not using cocaine 51% were tested negative for cocaine using urine analysis and 2% tested positive. ✓ Of those who said they used some cocaine 24% tested negative using urine analysis and 22% tested positive. ✓ There was some reduction in cocaine use and non-users went from 16% to 52%. ✓ The number of daily users fell from 30% to 6%. ✓

It was concluded that drug treatment was effective for poly-drug users, ✓ although the study also found that other treatment was needed to address issues such as peer effects and that attention was needed to other issues apart from the treatment such as financial and economic issues. ✓

Comments on the answer, question 2

There are six ticks here for the results and conclusions, so you can see that there is more than enough for the 4 marks. Note, however, that the information on the aims and the procedure is not needed for this question and does not receive marks. Focus on the actual question in an exam because otherwise you might not have time to finish.

Homework answer, question 4

This was a study as part of the Swiss Heroin Project, which was a specially funded project, and possibly the findings only apply to users who are part of this sort of maintenance programme rather than any such programme. ✓ The researchers themselves make this suggestion that there might be a lack of generalisability. The study is hard to replicate given the many research methods used such as interviewing and urine testing. A lot of detail was included in the data gathered, including interviews and questionnaires, so researchers and those gathering the data may have affected the study in such a way that it is not easily replicable, so hard to test for reliability. ✓ Blättler et al. (2002) gained ethical approval at the start and there was a safety group who monitored

the study throughout, so there was good attention to ethics in this study, all the more important as it could be said that drug users are a vulnerable group. ✓

It is possible that it was being on the study that led to the findings because the participants felt that as they were being monitored they should stick to the programme. ✓ It might not be that the programme worked so much as that participants responded to being involved in the study itself, which would mean the findings (that the programme was at least to an extent successful) are not valid. ✓

Comments on the answer, question 4

This answer is enough for 5 marks so needs a little more. Generalisability, reliability, validity and ethics are all covered, with 1 mark for each point more or less. Note that quite a bit is needed for each mark and the point has to be very clearly made. For the sixth mark, perhaps mention how reliability could be checked because of the many methods used, and if different research methods give the same findings reliability can be shown.

Application: Health psychology

Session: 3

Date:

Pages for question: p. 138, Q1

Pages for answer: pp. 121–24

Objectives: To test understanding of a biological explanation for substance misuse

Homework question

Describe an explanation of substance misuse from the biological approach.

(4 marks)

Comments on the question

This is straightforward: the question requires one explanation for drug misuse but it must be a biological explanation.

Homework answer

One explanation for substance misuse is that it is about neuronal transmission and neurotransmitter functioning where pleasure is the focus. ✓ Drugs cause a pleasure reaction and can also cause addiction and these take place at the synapse. ✓ Drugs act like any other neurotransmitter in principle — electrical impulses travel down an axon and release neurotransmitters into the synaptic gap. The neurotransmitter chemicals are then picked up by receptors of another neuron (or there is inhibition) and signals in the brain are affected. ✓ Medical drugs work in this way and so do so-called recreational drugs. Dopamine and serotonin are both neurotransmitters that affect positive and pleasure emotions and many drugs involve the dopamine and/or serotonin receptors. ✓

Comments on the answer

Clearly there is enough here for the marks and quite a bit of detail, though no more than is needed. It is good practice to give a little more where possible.