

Delivery Guide

H167/H567



PSYCHOLOGY

A guide to flipped learning

July 2015



AS and A LEVEL **PSYCHOLOGY**

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AS and A LEVEL **PSYCHOLOGY**

What is flipped learning?

Good flipped learning blends traditional teaching methods with technology to improve the quality of time teachers spend with students face-to-face. Students feel empowered and engaged when working through content for the lessons ahead and turn up to class eager to demonstrate their new knowledge and understanding whilst equally equipped with questions for the teacher.

Using this pedagogy shifts the role of the teacher in the classroom from lecturer to coach and allows you to facilitate learning more than traditional didactic methods do. Flipped learning enables you to provide students with enriching material and extend stretch and challenge beyond the classroom. Students have access to the material prior to the lesson the flipped learning will be used in and are able to explore the content at their own pace.

Flipped learning accelerates learning as students gain knowledge before the lesson and begin to comprehend this so they can employ higher order thinking such as application and analysis in the classroom with you, the skilled practitioner. Lessons can be structured around Blooms taxonomy or SOLO taxonomy to build up students' knowledge and skills.

This method of learning gives students time to revisit content that they find challenging and seek feedback and support that may not be possible in the confines of the traditional classroom. Teachers are also able to understand their students' progress further and identify areas students need support on still.

Lesson time with the teacher can then be spent completing active learning tasks and gaining more meaningful feedback. Students attend classes primed with the content for the topic and ready to engage in more sophisticated learning activities that promote deeper thinking.

Find out more about flipped learning at:

The Flipped Learning Network: <u>http://flippedlearning.org/site/default.aspx?PageID=1</u> 'The Flipped Classroom Model' <u>https://www.youtube.com/watch?v=ojiebVw8O0g</u> 'Teaching for Tomorrow: Flipped Learning' - <u>https://www.youtube.com/watch?v=4a7NbUlr_iQ</u> "'Fliperentiated" Instruction: How to create the customizable classroom'<u>http://www.edutopia.org/blog/fliperentiated-instruction-create-customizable-classroom-joe-hirsch</u>

Advantages of flipped learning for the student:

- Students can work at their own pace
- Students are more engaged
- Class time can be utilised to focus on skills and higher order thinking such as application
- More personalised feedback
- Allows more flexible approach to learning with choice about when they study and how they complete the work
- Resources are available if students are absent from the lesson and they can revisit these as often as they require
- Good preparation for university and independent study skills.

Advantages of flipped learning for the teacher:

- Great to refer to during the lesson, for reflection, for plenaries, for revision and for evidence of your teaching and learning and progress made
- A form of formative assessment that enables you to alter the level the next lesson is pitched at
- Enables you to have more one-to-one/ small group work with students in lessons
- Differentiation is more effective both in flipped learning tasks and lesson time.



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How to plan and deliver flipped learning for the new specification:

The new specification offers lots of opportunity for students to explore the subject and develop a wide range of skills. The scientific study of the mind and behaviour demands that students immerse themselves in the phenomena they study and question both the methods used to study these and the applications research leads to. Flipped learning enables you to provide students with an enriching learning experience that fosters a thirst for learning and to think like psychologists.

Flipped learning often involves the use of videos and information on the topic that the students digest and form into their own notes. It is useful to provide a note taking sheet to support students who struggle to organise information and as a prompt for what needs to be covered. Typically note taking may be on an individual sheet or it could form part of a topic workbook the student uses throughout the topic. Further to making their own notes, students can contribute to discussion boards and post responses to questions posed by their teacher. This can demonstrate higher order thinking and allow students to directly respond to a stimulus, discussion question or exam question.

Flipped learning may be completely new to students so reminding them explicitly of how to get support whilst completing their flipped learning task is vital. This can be in the form of your email address, a forum or drop in session prior to the lesson.

Assessing flipped learning can be highly effective by using multiple choice quizzes, timed exam questions, responses mapped to the assessment criteria and peer marking as detailed below.

As with traditional lessons, practitioners have reported that students work best with a set structure for their flipped learning lesson and many adopt the strategy of providing a prerecorded lecture followed by discussion tasks or further reading/ watching to extend their knowledge.

The following guide provides ideas for each topic and the specific concepts on the specification that will compliment existing resources teachers have. There is also a wealth of existing work online so there is no need to make all pre-recorded lectures yourself.

Some tools you can use for flipped learning:

Name	Description
Blendspace https://www. blendspace. com/	This website 'allows teachers to blend their classroom with digital content' and create lessons in 5 minutes. To create lessons you drag and drop resources from YouTube, Google, Flickr, Educreations or Gooru. You can also upload your own documents from your computer, dropbox or GDrive. Whilst this is currently only available on internet browsers they are working on an iPad app.
Socrative www.socrative. com/	This website allows you to create learning activities for students and to assess their understanding. Socrative can be used in the classroom and for flipped learning by creating quizzes, quick questions, a space race or exit tickets. Using socrative in flipped learning allows you to schedule quizzes in specific time windows and allows students to ask their own questions and record their progress.
Padlet https://padlet. com/	Padlet is described as a wall that is like 'a blank piece of paper' that you can collaborate with others on. It allows you and students to share ideas, information and multimedia and place it where you like on the padlet. Padlet can be moderated by the author of the wall and therefore you can edit and delete posts you wish to. Every wall has a unique URL code that you can distribute to students or embed in a blog or website.
Educreations https://www. educreations. com/	Educreations allows you to create video tutorials that record your iPad screen and voice and allow students to access the videos. You can import your own resources as well such as images, word documents or PDFs. Students can also create their own videos about what they have learnt.
Resourcdblog resourcdblogs. com/	A blogging site that enables you to blog about topics, embed YouTube clips and create multiple choice quizzes for your students to complete. You can join a group, start a discussion board, network and also blog for your students.
YouTube www.youtube. com/	This website hosts your videos and allows students to comment. This is typically embedded in flipped learning rather than used as a platform itself.
Quizlet https://quizlet. com/	A site that allows you or students to make flashcards, tests and study games. You can track progress and students can compete with one another. This is also available as an app for students to use.



Content		Activities/ ideas	Key issues to address	Resources
1.1 Research Methods and	Self- Report	Starter: Image of a couple with the question 'What questions could you ask to find out about romantic preferences?' to get students thinking.	Social desirability bias	Learner resource 1.1
techniques			Demand characteristics	
		Idea: Students watch a lecture recorded by their teacher on self-report that includes different		Learner_
		types of questions and their evaluative points. Students to complete the worksheet <u>Learner</u> resource 1.1	Validity	resource 1.1.
			Reliability	
		Idea: Students have the brief in Learner resource 1.1.2 and are asked to prepare a draft for the		
		lesson which can be peer evaluated in class.	Experimenter effects	
		Idea: Students watch a lecture recorded by their teacher on interviews with a MCQ to follow. Lecture can include pause and reflect questions so students can consider the use of different concepts within interviews.	Participant variables	
		Idea: Pick a TV programme all the students can watch, such as <i>EastEnders</i> , and then ask them to plan a semi-structured interview to conduct in the next lesson. When in lesson get students to critique each interview technique and the interviewer using a structured worksheet with		
		prompts.		



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Content		Activities/ ideas	Key issues to address	Resources
	Experiment	Starter: Image of a stimulus such as memory or happiness which poses the question <i>'What causes this?'</i> and allows students the opportunity to post ideas and complete wider reading to	Cause and effect	Learner resource 1.1.3
		suggest contributing factors. This could be done on Padlet to allow students to share links to articles/ evidence to support why they believe that factor causes behaviour.	Independent variable	Learner
			Dependent variable	resource 1.1.4
		Idea: Teacher provides an explanatory sheet with scenarios for students to work through to suggest what may cause given dependent variables. See <u>Learner resource 1.1.3</u> for exemplars and diagrams.	Extraneous variables	
			Confounding variable	
		Idea: Students are provided with an information sheet or pre-recorded lecture from the teacher about the different types of experiment (lab, field and quasi) and then students have to answer a multiple choice quiz to select the appropriate answer for given scenarios. See <u>Learner resource</u>	Validity	
		<u>1.1.4</u>	Reliability	
		Link: 'Research Methods: Experimental Design' <u>https://www.youtube.com/watch?v=qtLnBz6lbRQ</u>	Laboratory	
		Idea: Students are given a scenario on Padlet and have to contribute their idea for how to carry	Field	
		this out using their chosen type of experiment. Teachers can provide a graded outcome on Padlet easily by uploading an image of a grading ladder mapped to the exam criteria. This can then be discussed in class and built on or even peer assessed and improved.	Natural/ Quasi	



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Content		Activities/ ideas	Key issues to address	Resources
	Observation	Idea: Provide a pre-recorded lecture on the types of observation and then gives students a	Structured	
		multiple choice quiz with different scenarios/ past research to test their knowledge.	Unstructured	
		Idea: Give students pre-recorded lecture on overt and covert observations with past research	Naturalistic	
		examples and evaluation points before getting them to suggest ways to make further research aims covert or overt on a discussion board.	Controlled	
			Participant	
		Idea: Use Padlet to get students to suggest appropriate behavioural categories for a coding scheme based on a scenario given. Students can justify their answers with links to their research	Non-participant	
		on the topic. This will support students understanding of the creation of coding schemes.	Overt	
		Idea: Prior to a lesson on reliability in observations get students to create their own Padlets	Covert	
		where they share their findings for a practical observation and discuss their group's findings	Coding scheme	
		using prompts you provide. The lesson time can then apply this reflection to exam questions and evaluation skills.	Behavioural categories	
		evaluation skins.	Event sampling	
			Time sampling	
			Inter-rater reliability	
			Validity	
			Reliability	
	Correlation	Starter: Give students examples of research topics/ phenomena that is highly unethical to	Positive correlation	
		manipulate the variables of and get them to reflect on why referring to the ethical guidelines.	Negative correlation	
		Idea: Provide pre-recorded lecture of the reasons correlations are carried out and the key concepts for this topic and then students complete MCQ.	No correlation	
		Idea: Provide students with real world examples of phenomena and get them to suggest how a correlational analysis could be done in preparation for further discussion in class and evaluation.	Scattergraph	
		Idea: Cive students a stimulus such as 'age and liking of she selate' and get there to play have	Correlation co-efficient	
		Idea: Give students a stimulus such as 'age and liking of chocolate' and get them to plan how to carry out a correlational analysis of this and submit it on Quizlet or a similar platform so you can review suggestions in preparation for the next lesson. The next lesson could involve peer-	Relationship	
		assessing answers you have already printed from Quizlet.	Quantitative data	



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Planning I conducting earch	Aims and hypotheses and how to formulate	 Starter: Use Blendspace, Padlet or similar to give students links to a selection of articles and ask them to share their ideas about what is interesting about that to research. Idea: Give students an explanation of the research process with a flowchart of the steps to take when planning and conducting research. Give students real life phenomena or more ambiguous images and get them to come up with research aims and questions and post them to a discussion board. Idea: Pre-recorded teacher lecture with a MCQ to follow to test understanding of types of hypothesis. Idea: Provide students with fill in the gap exercises for different types of hypothesis. See the OCR lesson element 'Introduction to hypotheses and development of hypothesis writing skills' and 'Hypothesis writing guide' for templates. http://www.ocr.org.uk/Images/181010-introduction-to-hypotheses-and-the-development-of-hypothesis-writing-skills-lesson-element.zip Idea: Use Quizlet to get students to provide a null hypothesis for research that you have provided the alternative hypothesis for. This is easy to assess and students can revisit the lecture/ their worksheets if unsure. 	Research aim Research question Null hypotheses Alternative hypotheses One-tailed (directional) hypotheses Two-tailed (non-directional) hypotheses	
	Populations, samples and sampling techniques	 Idea: Provide students with an explanation of sampling techniques and a background to this area with examples of research that have used each through a worksheet or pre-recorded lecture. Idea: Provide students with an animated video of each sampling method simplified to highlight the key points for each. Link: 'A-Level Psychology – Sampling Methods' https://www.youtube.com/watch?v=Dn-xXlcAuEE Idea: Upload an image for each type of sampling method with a scenario and get students to discuss the strengths and weaknesses of each sampling technique in that scenario. Students can use textbooks, lectures or further reading to support their discussion. Teachers can give students a graded outcomes grid to assess the level of their response. Idea: Give students a scenario and direct them to choose an appropriate sampling method and justify their choice for that study. Again, this can be accompanied by a graded outcomes grid to assess the level of their response and provide guidance. 	Target population Sample Random sampling Opportunity sampling Self-selected sampling Snowball sampling Representativeness Generalisability	



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Content		Activities/ ideas	Key issues to address	Resources
Content	Experimental designs	Idea: Provide a pre-recorded lecture on the key concepts and evaluative points. Students then complete a MCQ on these. Idea: Provide different scenarios and students have to suggest why that may be problematic using key terms learnt in lecture. Link: 'Research designs' https://www.youtube.com/watch?v=WnBOTsP8z4g	Repeated measures design Independent measures design Matched pairs design Counterbalancing Order effects Participant variables	Resources
	Variables and how they are operationalised	 Link: Students watch 'Psychological Research – Crash Course Psychology #2' at <u>https://www.youtube.com/watch?v=hFV71QPvX21</u> Task: Students watch teacher lecture or read notes and then complete <u>Learner resource 1.1.5</u> Idea: Following an explanation of extraneous variables and how to control them pose a variety of dilemmas for students on a communal space, such as Blendspace, where students can suggest different ways to control the extraneous variables and critique one another's ideas. 	Operationalisation Control Extraneous variables	Learner resource 1.1.5
	Designing observations	 Idea: Provide pre-recorded lecture about how to plan a piece of research using a given stimulus. Students then challenged to plan their own research using a provided template that ensures the students justify their decisions. Idea: Give students scenarios of observational research with two options for them to choose from for each design choice (e.g. measurement of variable, location) which they can then justify. 	Behavioural categories Coding frames Time/event sampling	
	Designing self- reports	 Idea: Provide a sample questionnaire for students to complete themselves as part of their flipped learning. They then have to critique the questionnaire using Padlet or one of the various collaborative whiteboard websites. Idea: Give students a brief and a recap of interviews so they can prepare their planned research and share ideas prior to the lesson. The lesson can then be used to reflect on design choices and apply to exam style questions. 	Open/ closed questions Rating scales Likert Semantic differential	
1.3 Data recording, analysis and presentation	Raw data	 Idea: Give students a pre-recorded lecture on the methods of recording both quantitative and qualitative data. Provide 'pause for thought' opportunities so they can fill in a worksheet provided. Idea: Give students raw data in a word document that they have to organise into a data recording table and submit. This gives the teacher the opportunity to unpick any misunderstanding early on prior to the lesson. Idea: Give students a MCQ where they are given the level of significance and asked to choose the appropriate answer to a stimulus. Idea: Give student stimulus research and get them to assess the validity of the data recorded using prompts. This can be built on in the lesson and misconceptions addressed. 	Raw data Data recording tables Standard and decimal form Significant figures Estimations from data collected	

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Content		Activities/ ideas	Key issues to address	Resources
	vels and bes of data	 Idea: Give students a pre-recorded lecture on levels of measurement with worked examples of each level. This can also serve to introduce the concept of inferential statistics and prime students for future lessons on that. Link: 'Nominal, ordinal, interval and ratio data: How to remember the differences' https://www.youtube.com/watch?v=LPHYPXBK_ks Idea: Give students a stimulus such as a news article or psychological research article and get them to record the qualitative and the quantitative data to see the difference. This could be done through a discussion board on platforms such as a blog or Blendspace. Padlet could be used with the data already there and the students have to reorganise it into two types of data. Idea: Give students a selection of news articles and get them to identify the primary and secondary data used in it. 	Nominal Ordinal Interval Quantitative Qualitative Primary and secondary data	
	scriptive itistics	 Starter: Give students a really long description of the behaviour of students in a lesson to illustrate the need for descriptive statistics. Ask them to discuss on Blendspace or a similar platform how they could present the information more effectively. Idea: Direct students to complete tasks in chosen textbook in preparation for the lesson and to revisit notes/ recorded lecture for support. Idea: Give students images of different types of charts as part of a MCQ where they have to select the appropriate chart for the study given. 	Measures of central tendency (mode, median, mean) Measures of dispersion (variance, range, standard deviation) Ratio Percentages Fractions Frequency tables (tally chart)	
		Idea: Give students sample data and ask them to calculate the mode, median and mean and submit via Quizlet. This allows you to identify the students who are requiring further support the following lesson.	Line graph Pie charts Bar charts	
		Idea: Provide students with exam style questions for bar charts and scatter diagrams along with a mark scheme so they can assess examples and suggest how they can be improved.	Histograms Scatter diagram	



Content		Activities/ ideas	Key issues to address	Resources
	Inferential statistics	Starter: Give students the data table in <u>Learner resource 1.3.1</u> so they can create a chart that shows data that is normally distributed. Then direct students to a pre-recorded lecture or worksheet on the bell curve using height as the example for normal distribution.	Normal distribution curves Skewed distribution curves Probability	Learner resource 1.3.1
		Idea: Give students a grid of what type of statistical test to use with what level of data and design and challenge them to revise this for the next lesson. The reasons for this can then be built on in class. Students could share mnemonics or rhymes for the grid on a discussion board. Activity: Give students Learner resource 1.3.2 to work through at home to learn the chi-square	Significance levels Using statistical tables of critical values Criteria for a parametric test	Learner resource 1.3.2 Learner resource 1.3.3
		test.	Criteria for using a specific non-parametric inferential	
		Idea: Give students a pre-recorded lecture with opportunity for 'pause for thought' so they can choose an appropriate before listening on to hear the correct answer and why.	test (Mann-Whitney U test, Wilcoxon Signed Ranks test, Chi-square, Binomial Sign test	
		Idea: Give students the different symbols and their definitions for them to revise before the lesson. Now they have learnt the names and definitions you can build on the use of them. See <u>Learner resource 1.3.3</u>	and Spearman's Rho) Understand the use of specific non-parametric	
		Link: Activities and examples of data can be found in ' <i>Research Methods and Statistics in Psychology</i> ' by Hugh Coolican.	inferential tests (Mann- Whitney U test, Wilcoxon Signed Ranks test, Chi-square, Binomial Sign test and Spearman's Rho)	
			Type 1 errors Type 2 errors	
			Symbols: =, <, <<, >>, >, x , ~.	



Content		Activities/ ideas	Key issues to address	Resources
Method	dological	Many of the methodological issues can be embedded into the themes and areas but below are	Representativeness	
issues		explicit tasks for these issues.	Generalisability	
		Idea: Use Padlet so students can arrange scenarios or past research into a scale from most generalisable to least. Students should provide justifications for their ratings and initial their charge scenario to identify it as their work.	Reliability Internal, External, Inter-rater, Test-retest, Split- half	
		chosen scenario to identify it as their work. Idea: Students answer questions on Quizlet about generalisability and teachers use the word answer option to allow students to justify their responses. These responses can then be used in the following bases for a super technique apprice.	Validity: Internal, Face, Construct, Concurrent, Criterion, External, Population, Ecological	
		the following lesson for peer marking or an exam technique session.	Demand characteristics	
		Idea: Students watch a recap of reliability and the different terms within this before completing	Social desirability	
		a series of multiple choice questions to test their knowledge. Students are then primed for a	Researcher/ Observer bias	
		session in class on exam technique regarding reliability.	Researcher/ Observer effect(s)	
		Idea: Students are provided with a piece of research or a one page summary of the key features of the study and have to use the different types of validity on a worksheet to critique the study prior to a lesson on validity.	Ethical considerations, including the British Psychological Society's Code of Ethics and Conduct:	
		Idea: Students are shown a variety of responses from an online dating survey they carried out earlier in the year and asked to comment on the effect social desirability may have had and how this could be tackled.	Respect – informed consent, right to withdraw, confidentiality	
		Link Divert students to watch (Demand shave staristics' https://www.uputube.com/	Competence	
		Link: Direct students to watch ' <i>Demand characteristics</i> ' <u>https://www.youtube.com/</u> watch?v=TXjqCUNH3b0 to recap what they are and how they are caused.	Responsibility – protection of participant, debrief	
		Idea: Using a platform such as Blendspace give students a reminder of the concept researcher effects and then get them to discuss why teachers and students change their behaviour in a lesson observation. They could then discuss how to overcome this issue. Following this can be a selection of scenarios students should suggest how to improve ready for the next lesson. Students can be given a graded outcomes grid for these responses also.	Integrity – deception	
		Idea: Give students a pre-recorded lecture on ethical guidelines and then give them scenarios to discuss on a platform such as Blendspace or Padlet where they can suggest ways to ensure research adheres to the guidelines.		



Content		Activities/ ideas	Key issues to address	Resources
1.4 Report writing	Sections and sub-sections of a practical report	 Starter: Upload a report such as that by Loftus and Palmer that is relatively short and get them to write a plan to summarise the structure. Idea: Provide students with a worksheet on how to structure a practical report with a simple example and get them to write up their own practical using it. Idea: Give students a multiple choice quiz to test their knowledge of where excerpts of a report would belong. 	Abstract, introduction, method (design, sample, materials/ apparatus, procedure), results, discussion, references, appendices.	
	Citing academic references	 Idea: Spot the odd one out. Get students to read about the format references should be given in using the Harvard referencing system before getting them to spot the incorrect references. Idea: Give students a blog you have written about a topic you are studying that has cited several pieces of research, books and films and get students to annotate the blog with corrections. Idea: Get students to research an allocated study you provide and then write a blog about it correctly citing it using guidance. 	Harvard system of referencing	
	Peer review	 Idea: Give students a pre-recorded lecture or worksheet on the peer review process and then provide them with a piece of research for them to peer review using a set criteria. Link: 'Peer review' outline of what it is by the BPS along with strengths and weaknesses. http://www.publications.parliament.uk/pa/cm201011/cmselect/cmsctech/writev/856/m87.htm Idea: Get students to peer review their own practical work that you have uploaded for them to comment on using set criteria. This can then be drawn on in lesson and the issue of bias discussed. 	Validating new knowledge and ensuring integrity through the process of peer review	
1.5 Practical activities	Self-report	 Idea: Share a link to a recent news article with students as a stimulus for their practical research. Students should post their ideas for a research aim on the discussion board. Idea: Arrange students into groups of threes or fours and give them a Padlet board to plan their questionnaire on. There could be prompts on the Padlet board already as hints and these can vary depending on the group. Idea: Get students to post a blog about their practical plan and any concerns they have. Give them a list of ten key terms to include as a challenge. This can then be discussed as a class before they do the practical to address any issues. Activity: Give students a news article such as the one below with a challenge such as that in 	Replicability Operationalisation Questionnaire Interview Type of question Validity	Learner resource 1.5.1.1
		Learner resource 1.5.1.1 to complete individually.	Clear instructions	



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Content		Activities/ ideas	Key issues to address	Resources
	Observation	Activity: Give students Learner resource 1.5.2.1 to help them plan their practical ready to bring	Replicability	Learner_
		into class to be approved. This could be	Operationalisation	<u>resource</u> <u>1.5.2.1</u>
		instituctions	Naturalistic/ Controlled	<u>1.J.Z.1</u>
			Participant/non-participant	
		Idea: Give students a stimulus for a practical that they then suggest behavioural categories for	Overt/ Covert	
		that can be discussed in the lesson.	Qualitative/ Quantitative	
		Idea: Students can write their own reflective blog on their practical observation prior to a lesson	Structured/ unstructured	
		on this and can be directed to read at least 3 others or use these in class.	Event sampling/ time sampling	
			Behavioural category	
			Coding scheme	
	Experiment		Replicability	
		provide but have to justify their decisions. Useful for evaluative skills.	Operationalisation	
		Idea: Give students a letter a researcher has written; perhaps even you, which outline provisional	Laboratory/ Field/ Quasi/	
		plans and expresses concern that it is not good enough. Students then use notes or previous video lectures to reply with comments about the strengths and weaknesses of the plan. Students	Natural	
		can then use this experience to plan their own practical experiment.	Experimental design	
			Sampling method	
	Correlation	Idea: Direct students to recap their notes and flipped resources on correlations before creating a	Replicability	
		guide to carrying out a correlational practical with hints and tips for other students. This can then be used in the class and compared to mark schemes to ensure they have the key features.	Operationalisation	
			Co-variables	
			Relationship	
			Scattergraph	
			Quantitative data	



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.6 How science orks	Decisions society make about scientific issues and contribution of psychology to	 Starter: Direct students to read 'Ten things you did not know about psychology' at the link below. Then challenge students to find a further example of how psychology has contributed to society. Students can then upload this to a discussion board appropriately referenced. Link: <u>http://www.bps.org.uk/psychology-public/how-can-psychology-help-you/ten-things-you-might-not-know-about-psychology/ten-thi</u> 	Decision making Economy Social responsibility	
	success of the economy and society	 Link: The History of Psychology Centre website http://hopc.bps.org.uk/ Activity: Students visit the below link and then make a note of examples they find. Link: http://psychologybenefits.org/ 		
	The study of cause and effect	Idea: Give students a card sort to complete that sorts statements into causes and the effects. Idea: Give students further reading about the importance of using scientific methods to investigate cause and effect by isolating the variables.	Cause and effect Deduction Scientific Variables	
	Falsification	Idea: Students complete wider reading to support understanding of falsifiability. Link: 'Criterion of falsifiability' http://www.britannica.com/EBchecked/topic/201091/criterion-of- falsifiability 'Falsifiability' https://explorable.com/falsifiability Idea: Students read further about Karl Popper and falsification and create a leaflet to define the term and explain its history to peers. Idea: Give students research aims and get them to discuss if they are falsifiable and if so, how. Idea: Students given an explanation of the difficulty of falsifying information gathered from case studies and asked if this compromises the value of such research. Idea: Students could complete a multiple choice quiz to select whether examples you provide are falsifiable. This could also be carried out on Quizlet to allow for qualitative answers that show their reasoning.	Falsifiability Hypotheses Testability Deduction	



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Content		Activities/ ideas	Key issues to address	Resources
	Replicability	 Starter: Pose the question 'Would you take medication that was shown to be unreliable in repeated medical trials?' to start students thinking about the importance of reliability. Idea: Give students a pre-recorded lecture on reliability to recap the overall concept as well as 	Reliability Consistency	
		replicability or use an existing resource such as that below. Link: 'Reliability and validity' https://www.youtube.com/watch?v=epWvQvTtVUA	Replicability	
		Idea: Give students a selection of research papers to read and rate the replicability of. Students should consider how feasible it would be to replicate the study due to the level of detail included about the procedures used. They could suggest improvements required in preparation for the next lesson.		
	Objectivity	Idea: Give students brief summaries of past research and get them to rate how objective each is using set criteria you provide.	Objectivity Subjectivity	
		Idea: Students can also discuss how the research could be made more objective on a discussion board prior to the lesson.	Evidence	
	Induction and deduction	Idea: If students study general studies they can use this to support their understanding.Idea: Set students a research task to carry out wider reading about inductive and deductive reasoning and create a guide for students about these terms and the research process.	Induction Deduction Observation	
		Idea: Give students a diagram of the induction and deduction process to annotate with research on Karl Popper and the development of the hypothetico-deductive model and Kuhn's work.	Hypotheses Predictions	
		Idea: Give students examples of psychological research and get them to decide if each is inductive or deductive.	Evidence Generalisability Falsification	
	Hypothesis testing	Starter: Give students a discussion task where they have to give initial responses to the question 'Can we ever 'prove' a theory to be true?'	Hypothesis Prediction	
		Idea: Provide students with a brief pre-recorded lecture on the use of the term supports rather than proves and why this is so with worked examples.	Operationalisation	
		Idea: Give students a number of observed patterns and get them to formulate potential hypotheses on a discussion board. Some students may require writing frames.	Testability Cause and effect	
		Idea: Give students a flowchart for deductive methods and get them to annotate it with the context for a chosen core study for the hypothesis, test and results.	Cause and effect	



Content		Activities/ ideas	Key issues to address	Resources
	Manipulation of variables	Idea: Give students observations researchers have made about behaviour or news articles and ask students to suggest how the variable of interest could be manipulated.	Operationalisation Conditions	
		Idea: Give students existing research and get them to state how the research has been manipulated, what conditions exist and any level of measurement used.		
	Control and standardisation	Idea: Give students five scenarios of research and get them to contribute to a discussion board potential extraneous variables and how they would attempt to control them.	Controls	
		Idea: Give students a recap of what standardisation is and its importance. Students then justify why different pieces of research given are standardised.	Validity Standardisation Reliability	
	Quantifiable measurements	Link: Direct students to watch ' <i>The qualitative/ quantitative debate</i> ' <u>https://www.youtube.com/</u> watch?v=kO4fKtUut74&feature=youtu.be and get them to write a summary of the video on a discussion board/ Blendspace.	Quantifiable Operationalisation	
		Idea: Give students further reading on the importance of quantifiable measurements in scientific methods and give them a 50 words challenge to summarise this.	Accuracy Scientific	
		Idea: Give students a series of variables and get them to operationalise them so they are quantifiable.		



Content		Activities/ ideas	Key issues to address	Resources
2.1 Individual studies	ridual Milgram (1963) Obedience	Starter: Pose the question 'What leads someone to carry out inhumane acts?' so students can discuss their current ideas.	Obedience Authority	
		Idea: Students research the holocaust and the cause of evil and discuss situational v dispositional	Legitimacy	
		explanations of behaviour using prompts provided by the teacher.	Agentic state	
		Link: 'The psychology of evil' by Zimbardo	Controlled observation	
		http://www.ted.com/talks/philip_zimbardo_on_the_psychology_of_evil?language=en	Situational explanation	
	Bocchiaro	Starter: Students read about the Edward Snowden whistleblowing case and discuss why he did	Legitimate authority	
	et al (2012) Disobedience	this and what led him to speak out. Teacher prompts to support the discussion of both individual (personality) and situational (social) factors.	Disobedience	
	and whistle-		Unjust authority	
	blowing	Idea: Give students access to the original article and ask them to write a brief explanation of whistle blowing and why Bocchiaro et al were interested in studying this phenomena. Further to	Whistleblower	
		this students can be stretched to explain why they chose the research method used and design.	Holistic	
		Link: Original article <u>http://www.vu.nl/nl/Images/Artikel%20Paul%20van%20Lange_tcm9-</u> 259358.pdf		
	Piliavin et al	Discussion question for platform such as Blendspace or Padlet. 'Why do people choose whether to	Pluralistic ignorance	Learner_
	(1969) Subway Samaritan	<i>help or not?</i> ' Students are asked to predict what they think will happen and their reaction by the end of the video. Teachers can draw on student responses in the lesson. Bystander effect - <u>https://www.youtube.com/watch?v=KlvGlwLcluw</u>	Diffusion of responsibility	<u>resource</u> <u>2.1.3.1</u>
			Bystander apathy	
		Activity: Students read about Kitty Genovese and then share ideas about why people did not help. Differentiation can be offered by challenging students to discuss which reasons are most plausible.	Helping behaviour	
			Field experiment	
		Link: Kitty Genovese article <u>http://www2.southeastern.edu/Academics/Faculty/scraig/gansberg.</u> <u>html</u>	Cost-reward analysis	
		Activity: Students complete background reading about the study and then complete Learner resource 2.1.3.1.		





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Content		Activities/ ideas	Key issues to address	Resources
Levine et al (2001) Cross-cultural		Starter: Image of confined carriage or similar stimulus with question such as 'What was limiting about Piliavin's research?' to encourage students to see that Levine's research was building on previous research in non-confined settings.	Helping behaviour	
	al (2001) Cross-cultural		Prosocial behaviour	
	altruism		Kin selection theory	
		Idea: Students investigate prosocial behaviour and look at given news articles that show prosocial behaviour. They then read a factsheet about differing theories of prosocial behaviour	Reciprocal altruism	
		(Kin selection theory, Reciprocal altruism and Responsibility-prosocial value orientation) and justify on a discussion board which one they think explains each scenario best. See link below or	Responsibility-prosocial value orientation	
		the OCR resource ' <i>Guide to Core Studies 2</i> ' on page 8.	Social exchange theory	
		Link: Different theories for pro-social behaviour <u>http://en.wikipedia.org/wiki/Helping</u>	Field experiment	
		behavior#Kin_selection_theory	Rural/ urban	
			Cross-cultural variation	
	Loftus and	Starter: Show the students an image of a birthday party in the lesson and ask them to record	Reconstructive memory	
	Palmer (1974) Eyewitness	what was in the image on your chosen online platform (e.g. Blendspace) for their homework to demonstrate the use of schemas. Then provide a pre-recorded teacher lecture showing the	Schema	
	testimony	image again and explaining the concept of schemas with the birthday party example.	Mental representations	
		Idea: Students read about Bartlett's theory of reconstructive memory, for challenge students can	Eyewitness testimony	
		read: <u>http://www.academia.edu/2781315/Bartletts_concept_of_schema_in_reconstruction</u>	Leading questions	
		Link: 'Eyewitness testimony' explanation and weapon focus examples by Aidan Sammons. <u>http://www.psychlotron.org.uk/resources/memory/AQA_AS_memory_ewtarticle.pdf</u>	Laboratory experiment	
		Idea: Students read about eyewitness testimony and the issue of reliability.		
		Link: 'How reliable is eyewitness testimony?' <u>http://www.apa.org/monitor/apr06/eyewitness.aspx</u>		
		Idea: Students are given scenarios and asked; now they have learnt about reconstructive memory, to suggest how reliable the witnesses memory may be in the scenario and what else may have influenced the recall.		



Content		Activities/ ideas	Key issues to address	Resources
	Grant et al.	Starter: Pose the question 'Do you remember information learnt in class better if you revise it in lesson	Context-dependent memory	
	(1998) Context- dependent	or at home?' to draw on the idea of learning in similar and dissimilar contexts.	Encoding	
	memory	Idea: Students share factors that are different between learning at home and in the exam hall i.e.	Retrieval	
		family, distractions or TV.	Laboratory experiment	
		Activity: Students read <u>https://www.psychologytoday.com/blog/the-village-effect/201101/</u> <u>how-context-helps-you-retain-content</u> and then are asked to explain how memory is stored. Alternatively, give students a summary of Godden and Baddeley (1975) diver experiment. Idea: Challenge students by asking them to find evidence supporting and refuting the encoding	Background noise	
		specifity principle. This could be independent or structured using a worksheet of previous research.		
		Idea: Students suggest, using acquired knowledge from learning activities, how memory can be improved using this psychological knowledge. This could be for their peers at A Level when completing homework.		



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Content		Activities/ ideas	Key issues to address	Resources
	Moray (1959) Auditory attention	Starter: Students share ideas of things they may pay attention to in a lesson or similar scenario to demonstrate the huge amount of information we are exposed to in daily life. The key message here is that we cannot possibly pay attention to all of the stimuli in our environment. So the	Selective attention Divided attention	
		question posed is, what do we do to cope?	Audio attention	
		Idea: Teacher-led lecture explaining the context of the study and the two key types of attention (selective and divided) then students make notes/ fill in workbook on definitions with examples.	Cues Laboratory experiment	
		Activity: Students visit <u>http://www.gocognitive.net/demo/selective-attention-auditory-demonstration</u> and have a go at auditory selective attention tests.	Dichotic shadowing	
		Activity: Students visit <u>https://www.youtube.com/watch?v=zGKADgFCoeU</u> and have a go at the task listening to the female conversation rather than the male one. This requires headphones. Key message to get them to discuss is when two key messages/ conversations were presented they were ignorant of one 'I am a gorilla' as they were paying attention to the female.		
		Idea: Students read pages 180-185 of ' <i>The Psychology Book</i> ' (ISBN-13: 978-0756689704) about Broadbent's attention theory.		
	Simons and	Starter: Students watch the selective attention test by Simons & Chabris at: <u>https://www.</u>	Visual attention	
	Chabris (1999) Visual	<u>youtube.com/watch?v=vJG698U2Mvo</u> then have the opportunity to read further information about how attention works.	Change blindness	
	inattention		Inattentional blindness	
		Activity: Students can explore change blindness with an interactive game and explanation at:	Divided attention	
		http://www.gocognitive.net/demo/change-blindness	Laboratory experiment	
	Bandura et	Link: Students watch the clip as a hook to learning and to understand the importance of role	Social Learning Theory	Learner_
	al (1961) Transmission of	models to children's behaviour. <u>http://napcan.org.au/children-see-children-do/</u>	Behaviourism	<u>resource</u> 2.1.9.1
	aggression	Activity: Students use the social learning theory information sheet to apply this model to	Imitation	<u>2.1.9.1</u>
		scenarios the teacher uploads to their chosen platform (such as Blendspace). See Learner	Observational learning	Learner
		resource 2.1.9.1	Aggression	<u>resource</u> <u>2.1.9.2</u>
		Activity: Students use their textbook, teacher pre-recorded lecture or the original article to understand the procedure. Students then use <u>Learner resource 2.1.9.2</u> to either write a summary of the procedure using the key points or use the sheet as a card sort. Teachers could also use the card sort via socrative or similar online tools.	Laboratory experiment	Learner resource 2.1.9.3
		Idea: Students then have to read about the study and watch a YouTube clip of the children before completing a quiz (see <u>Learner resource 2.1.9.3</u>).		



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Content		Activities/ ideas	Key issues to address	Resources
	Chaney et al (2004) Funhaler study	Starter: Students read article about the difficulty of getting children to take medication, particularly inhalers. Students then use a discussion board to suggest, using their psychological knowledge, how to overcome these issues.	Operant conditioning Associative learning Adherence	Learner resource 2.1.10.1
		Link: <u>http://www.nursingtimes.net/nursing-practice/specialisms/asthma/practice-new-guidance-to-improve-asthma-control-putting-patients-at-the-centre-of-care/199904.article</u>	Medical regimen Compliance rates	
		Idea: Students share ideas about what is difficult about giving children medication, such as protesting, negative taste and time constraints.	Field experiment	
		Link: Explains what a fun haler is: <u>https://www.youtube.com/watch?v=6xhh8PowaKs</u>		
		Idea: Students need to understand the concept of operant conditioning. Provide an explanation of this concept using the below links or your own worksheet or pre-recorded lecture before getting students to apply this to inhalers by filling in <u>Learner resource 2.1.10.1</u>		
		Link: 'Big Bang Theory – operant conditioning' <u>https://www.youtube.com/watch?v=Mt4N9GSBoMI</u>		
		'Operant conditioning Skinner interview' <u>https://www.youtube.com/watch?v=I_ctJqjlrHA</u>		
	Kohlberg (1968) Stages of moral development	Starter: Pose the question ' <i>What are morals?</i> ' with an accompanying image and get students to contribute ideas from their own initial reading. Further to this you can pose 'How do we become moral?' or 'Does everyone have morals?' to get them thinking.	Moral development Preconventional Conventional	Learner resource 2.1.11.1
		Idea: Give students a moral dilemma such as '93 year old Amelie Van Esbeen was terminally ill and requested to be put to sleep, her request was denied. Do you think doctors should have given her a life-ending drug?' to elicit from students reasoning mapped to Kohlberg's stages.	Post-conventional Moral reasoning	
		Idea: Give the students an information sheet about Piaget's moral stages as background to the study and one of Piaget's moral stories. Ask students to record who a 7 year old would say is naughtier and why to demonstrate understanding.	Stage theory Cultural universality	
		Idea: Ask students to read the moral dilemma and record what individuals would say at each stage of moral development using <u>Learner resource 2.1.11.1</u>		
		Link: 'Heinz Dilemma – <i>Kohlberg's stages of Moral Development</i> (Interactive Animation)' that students can have a go at to see their level of moral development. <u>https://www.youtube.com/watch?v=5czp9S4u26M#t=36</u>		



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	Activities/ ideas	Key issues to address	Resources
Lee et al (1997)	Starter: Get students to compare western culture, such as in the UK, with collectivist cultures to	Socio-cultural construct	
Evaluations of lying and truth	see the differences in upbringing. Students contribute differences in values and behaviours to discussion board.	Socialisation	
telling		Cross-cultural research	
	Link: 'Cultural Dimension: me or we' <u>https://www.youtube.com/watch?v=CW7aWKXB5J4</u>	Lying	
		Social and cultural norms	
Sperry (1968)	Idea: Students find out more about the corpus callosum on 3D brain at <u>http://www.g2conline.</u>	Hemispheric disconnection	Learner_
Split brain study	org/	Corpus callosum	resource 2.1.12.1
,	Idea: Students find out more about why the corpus callosum is severed and how hemispheric	Localisation of function	
	disconnection is tested. <u>https://www.youtube.com/watch?v=ZMLzP1VCANo</u>	Quasi experiment	
	Idea: Students have a go at the split brain experiment at <u>http://www.nobelprize.org/educational/</u> medicine/split-brain/	Visual and tactile tests	
	Idea: Students complete the MCQ in <u>Learner resource 2.1.12.1</u> to demonstrate their understanding of lateralisation of function, split brain experiments and the research by Sperry.		
Casey et al	Idea: Visit 3D brain website to find out more about the inferior frontal gyrus and the ventral	Delayed gratification	
(2011) Neural correlates	striatum. (<u>http://www.g2conline.org/</u>)	Inferior frontal gyrus	
of delay of	Idea: Students learn more about the marshmallow task by watching 'Psychology: Delay of	The ventral striatum	
gratification	Gratification predicts Success? – Mischel's Marshmallow Experiment Revisited' <u>https://www.youtube.</u> <u>com/watch?v=K2Epxrz14bY</u> to understand the test of delayed gratification and the link to brain	Quasi experiment	
	development.		



Content		Activities/ ideas	Key issues to address	Resources
	Blakemore and Cooper (1970) Impact of early visual experience	 Starter: Students watch a video about brain plasticity that helps understand both B&C and Maguire et al's research. <u>https://www.youtube.com/watch?v=ELpfYCZa87g</u> Idea: Students can read about brain plasticity at <u>https://faculty.washington.edu/chudler/plast.html</u> Idea: Students watch a background of Blakemore and Cooper's research at: 	Visual cortex Neuron Neuroplasticity Horizontal/ vertical environment Perception	Learner resource 2.1.15.1
		https://www.youtube.com/watch?v=OzkMo45pcUo&feature=youtube_gdata Idea: Students prepare for a nature vs nurture debate in class by utilising videos, news articles and other resources provided by the teacher. Idea: See Learner resource 2.1.15.1 for a background to research into visual experience.	Laboratory experiment	
	Maguire et al (2000) Taxi drivers	 Task: Watch 'What happens when you remove the hippocampus?' <u>https://www.youtube.com/</u><u>watch?v=KkaXNvzE4pk</u> and write a summary of what happened to H.M. and how his behaviour was affected. Activity: Visit <u>http://video.nationalgeographic.com/video/london-taxi-sci?source=searchvideo</u> to find out more about Maguire's research. 	Navigation Hippocampus Neuroplasticity Quasi experiment	Learner resource 2.1.16.1
		Worksheet: Teachers can utilise the equipment card sort as part of the flipped learning task to get students to break down what each method entails. See <u>Learner resource 2.1.16.1</u>	Correlational analysis Grey matter	
		 Activity: Visit 3D brain website (<u>http://www.g2conline.org/</u>) or download the app '3D Brain'. Students could be provided with a worksheet to summarise relevant areas of the brain such as the hippocampus and temporal lobe. Link: 'Just how plastic is the brain?' <u>http://digest.bps.org.uk/2015/04/just-how-plastic-is-brain.html</u> 		



Content		Activities/ ideas	Key issues to address	Resources
	Freud (1909)	Starter: Students find out about Freudian theories of behaviour and record findings under key	Theory of infantile sexuality	
Little Hans	headings.	Theory of psychosexual development		
		Idea: Students watch a pre-recorded lecture on the psychosexual stages of development and make notes on a worksheet of what each stage includes.	Oedipus complex	
		Link: 'Rorschach & Freudians: Crash Course Psychology #21' https://www.youtube.com/	Phobia	
		watch?v=mUELAiHbCxc	Anxiety	
			Unconscious determinism	
			Psychodynamic perspective	
			Case study	
	Baron-Cohen	Idea: Direct students to http://www.autism.org.uk/about-autism/autism-and-asperger-	Theory of mind	
	et al. (1997) Autism in adults	syndrome-an-introduction/what-is-autism.aspx to read about the characteristics of autism.	Autism/ Asperger's syndrome	
		Idea: Direct students to poems about autism to gain an insight into the daily life of an individual with autism. Great examples at: <u>http://www.child-autism-parent-cafe.com/autism-poems.html</u>	Empathy	
			Ceiling effect	
		Idea: Students can watch a TED talk by Simon Baron-Cohen to extend their understanding of autism. <u>https://www.youtube.com/watch?v=eEYy1GXaNNY</u>	First order and second order tests	
		Idea: Direct students to watch a demonstration of the Sally-Ann test, such as <u>https://www.youtube.com/watch?v=QjkTQtggLH4</u> or explain as part of a pre-recorded lecture, then suggest what the problem is with testing adults with autism using this test. Introduce the concept of the ceiling effect.	Quasi experiment	
		Idea: Teacher pre-record a lecture explaining each of the four tests in the research with examples to demonstrate each that involve the student having a go themselves.		



Content		Activities/ ideas	Key issues to address	Resources
	Gould (1982) A nation of morons	Idea: Students watch ' <i>Controversy of Intelligence</i> ' to give an overview of the history of this concept at: <u>https://www.youtube.com/watch?v=9xTz3Qjclol</u>	Intelligence Intelligence quotient (IQ)	
	morons Bias in IQ testing	 Idea: Students read about the history of intelligence and create a timeline of at least four intelligence theories and how they are different. <i>'The Psychology Book'</i> (ISBN-13: 978-0756689704) has a good timeline on page 302-303 followed by explanations of some of the theories. (Book only £5 from the works.) Idea: Students read the article '<i>Race and intelligence: A sorry tale of shoddy science</i>' that outlines what the book '<i>The Mismeasure of Man</i>' by Gould shows. <u>http://www.theguardian.com/</u>science/2009/nov/12/race-intelligence-iq-science Idea: Pose the question '<i>Is intelligence innate or learnt?</i>' and after reading guided learning students 	Factor analysis Fluid and crystallised intelligence Multiple intelligence Review article Psychology as a science	
	Hancock et	 contribute their suggestions. Idea: Get students to have a go at some of the items from '<i>BITCH-100</i>', otherwise known as '<i>The Black Intelligence Test of Cultural Homogeneity</i>' by Robert Williams to demonstrate the cultural bias that is possible in intelligence testing. Idea: Students watch '<i>What our language habits reveal</i>' by Steven Pinker to understand the role 	Language	
	al. (2011) Language of psychopaths	of language in communicating our inner self. <u>http://www.ted.com/talks/steven_pinker_on_language_and_thought?language=en</u> Idea: Students can watch a longer documentary 'Steven Pinker: <i>Linguistics as a Window to</i> <i>Understanding the Brain</i> ' at <u>https://www.youtube.com/watch?v=Q-B_ONJIEcE</u>	Psychopath Interviews Content analysis Emotional processing	
		Idea: Use the debating matters topic guide "Neuroscience should transform our understanding of criminal responsibility" to draw on the argument that biological factors cause psychopathy and therefore affect our understanding of criminal responsibility. Link: http://www.debatingmatters.com/topicguides/topicguide/neuroscience_and_the_law/ Idea: Give students a simplified practical to simulate how the DAL (Whissell's Dictionary of Affect in Language) was created so they understand how the data was analysed using a content analysis. Teachers can use http://www.cs.columbia.edu/~julia/papers/dict_of_affect/_DictofAffectinLang.README.pdf to create a task appropriate to their students.	Maslow's hierarchy of needs	



Content Activities/ ideas		Activities/ ideas	Key issues to address	Resources
2.2 Core studies in their pairs	Social – Milgram (1963) and Bocchiaro et al (2012)	 Activity: Students can complete the Venn diagram in Learner resource 2.2.1.1 to show comparison points for the two studies. Idea: Students create a timeline to show the development of research into obedience and disobedience which includes background theories and studies to the two core studies. This can then be utilised in class to draw on the progress made. Idea: Students can discuss how Bocchiaro's study tackles a prominent phenomenon of whistleblowing which highlights individual diversity compared to Milgram's research into high obedience. 	Obedience Artificial settings Individual differences Situational v individual	Learner resource 2.2.1.1
	Social – Piliavin et al (1969)and Levine et al (2001)	Idea: Students can write a blog about how Piliavin was unable to explain helping behaviour in settings that were non-confined and how this limited the use of findings. The progress Levine et al made can then be built on in lesson.	Cross-cultural Settings Helping behaviour	
	Cognitive – Loftus and Palmer (1974) and Grant et al (1998)	Idea: Students can draw a diagram of how memory works for each decade using the core studies and background studies to demonstrate the gains in understanding of cognition and how memory works.	Memory Laboratory experiments Independent measures design	
	Cognitive – Moray (1959) and Simons and Chabris (1999)	 Idea: Students can be given a timeline of changes to understanding of attention using the background theories as well as the core studies. Students can then be directed to add explanations to justify why these developments in theoretical understanding occurred. Idea: Students can be asked to explain the key difference between earlier theories and more recent understanding using evidence to back their points up. Idea: Give students a scenario about an individual with particular attention issues. Get them to explain the behaviour if it occurred in 1960 compared to now using evidence from theories of those eras to support their answers. 	Attention Laboratory experiments	
	Developmental – Bandura et al (1961) and Chaney et al (2004)	 Idea: Get students to explain how furthered understanding of the influences on children's behaviour has had real life applications within the health sector. Idea: Get students to research the issue of research lacking generalisability and how Chaney furthered research by Bandura by widening the population that was investigated. 	External influences Generalisability Real life applications Experiments	



Content

	Activities/ ideas	Key issues to address	Resources
Developmental	Idea: Students write a letter to the earlier research explaining what they could improve and	Moral development	
- Kohlberg (1968) and Lee	using the contemporary study as an example for specific improvement points. Students can be provided with an appropriate writing frame for their level.	Nurture	
et al (1997)		Longitudinal v snapshot	
		Cultural influences	
Biological – Sperry (1968)	Starter: Students asked to reflect on how accurately mapping of skills in the brain are in the two pieces of research. Questions such as <i>'Where in the brain did Sperry say language was located?'</i> can	Quasi/ natural experiments	
and Casey et al (2011)	provoke understanding of the improvements in knowledge of the brain.	Brain imaging	
	Idea: Students research the development of technology that measures the brain ready to discuss the improving accuracy of research including that of Casey et al.		
Biological –	Idea: Students research the use of animal testing in psychology and debate on Blendspace the	Animal research	
Blakemore & Cooper (1970)	use of this is contemporary psychology.	Brain plasticity	
and Maguire et	Idea: Students read further about Maguire's research and suggest the real life applications it may	Nurture v nature	
al (2000)	provide. This can then be compared to B&C's research in class in terms of brain plasticity and the use of humans and quasi samples.	Quasi sample	
Individual	Idea: Students could be asked to prepare a table comparing key comparison points prior to the	Case study	
differences – Freud (1909)	lesson (see <u>Learner resource 2.2.1.1</u> for points of comparison).	Experiment	
and Baron-	Idea: Students could discuss the validity of the two core studies in understanding disorders	Quasi	
Cohen et al (1997)	particularly drawing on the different methodologies used and Baron-Cohens control tasks, use of quantitative data and concurrent validity.	Concurrent validity	
(1997)		Controls	
		Qualitative v quantitative data	



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Content		Activities/ ideas	Key issues to address	Resources
	Individual differences – Gould (1982)	Idea: Students compare the use of quantitative and qualitative measures in the research that aims to measure differences in people. Discussions can centre on the validity of each study in terms of understanding differences in people.	Qualitative v quantitative data Nomothetic v idiographic	
	and Hancock et al (2011)	Idea: Students can complete a Venn diagram to show the differences in measurements.	Validity	
		Idea: Students research the cultural bias in IQ tests and are reminded of the B.I.T.C.H test (referred to in the Gould individual study ideas above) to demonstrate the lack of validity across populations. This can then be drawn on in class.	Cultural bias	
		Idea: Provide students with a pre-recorded lecture or worksheet on nomothetic vs idiographic explanations of behaviour. This can then be built on in the lesson to draw on more recent researchers' acknowledgement of cultural and individual factors.		
2.3 Methodological Issues	The strengths and weaknesses of the different	Idea: Students can be challenged to find research that adheres or breaches specific guidelines and share on a discussion board with justification as to why this happened.	Ethical considerations Validity	
	research	Idea: Give students four images to represent four core studies that all have one feature in	Reliability	
	methods and	common and get students to suggest what the commonality is and the implications of this.	Sampling bias	
	techniques The strengths and weaknesses	Idea: Students gather evidence from core studies to answer the question ' <i>To what extent is psychological research ethnocentric?</i> ' and share points on discussion board ready for use in the lesson focused on exam technique.	Ethnocentrism	
	of different types of data	Idea: Students are each allocated an area and have to prepare an explanation of the type of data this area typically collects with justifications ready to share in class.		



Content		Activities/ ideas	Key issues to address	Resources
of the key themes in	nvestigated with	s aims to develop critical thinking and independent learning skills essential to the scientific st in the subject." Page 11 of the A Level specification. ectly inputted into an introduction for your flipped learning lessons to remind students why th		
2.4 Key themes and areas in psychology - How each core study relates to its theme - How each core study relates to the area of psychology it is placed within	Social – Responses to people in authority	 Key concepts: Milgram investigated the effect pressure from an authority figure had on individuals when asked to carry out destructive behaviour. Milgram explored the situational vs dispositional explanation of behaviour and favoured the influence of an authority figure and the situation as the main cause. Milgram inspired future research into the cause of obedience. Bocchiaro et al furthered Milgram's research by investigating obedience experimentally and in a different cultural setting in the Netherlands. They furthered the social explanation to a more holistic explanation that took individual explanations into account also. This research contrasted Milgram's in that it looked at how individuals challenge authority for positive reasons whereas Milgram looked at the lack of challenge to people in authority. Idea: Give students key terms to do with the social approach and direct them to creating a one page summary of each study using the 'buzz words' to explain the studies in the context of the key theme. Idea: Students research why the researchers carried out their investigations due to real life 	Social area Authority Situational v dispositional Social roles	Learner resource 2.4.1.1
	Social – Responses to people in need	 occurrences and previous research that had already been carried out. See Learner resource 2.4.1.1 Key concepts: Piliavin furthered experimental research by Darley & Latane (1968) by carrying out research in real life conditions to see if helping behaviour seen in laboratory settings was a true representation of peoples responses to people in need in everyday life. Piliavin focused on a number of variables, particularly the impact of others in the carriage on helping behaviour and the inability to escape the situation which led to a lack of diffusion of responsibility. Levine furthered this research by looking at responses to those in need in non-confined settings. Levine's research suggested that responses to those in need varies across cultures and makes you question the use of Piliavin's research beyond New York. Both pieces of research focus on the helping behaviour of strangers. Idea: Students recap the two core studies by reading the study summary in Learner resource 2.4.2.1 and then creating their own in a similar style for the second study. Students highlight the links to the key theme and approach in the summary in preparation for classroom activities on this. Idea: Students have to revisit the findings and conclusions of the two pieces of research and answer the question 'How was helping behaviour determined by the social environment that people <i>lived in?</i>' Students can then draw on the differences in each culture, including Piliavin's research in 	Social area Helping behaviour Ecological validity Situational factors Culture	Learner resource 2.4.2.1

Core studies

Component 2: Section A -

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Content

	Activities/ ideas	Key issues to address	Resources
Cognitive -	Key concepts: Loftus and Palmer focused on the concept of reconstructive memory that	Cognitive area	Learner_
Memory	purports that memory is made up of both the experience being processed and past experiences.		<u>resource</u>
	The use of schemas shows how the processing of information, and the storage of it, can be	Memory	<u>2.4.3.1</u>
	distorted and have an effect on the recall of eyewitnesses.	Processing	
	Grant et al further this by focusing on how the context can alter the processing of information as	FIOCESSING	
	it is then encoded into the memory store. They show that this has an effect on the memory recall.	Encoding	
		2	
	Both studies show how the encoding and storage of memories can be distorted and further to	Retrieval	
	this how it affects memory recall.		
		Eye witness testimony	
	Idea: Students complete Learner resource 2.4.3.1 to demonstrate how memory works using		
	cognitive processes and how these pieces of research influence our understanding of the mind.		
	Idea: When students return to the next lesson use the exam style question 'Explain how any one		
	core study can be considered to be located within the area of cognitive psychology.' (5) Using their		
	notes from flipped learning.		
Cognitive -	Key concepts: Moray was interested in auditory attention (selected and divided) and how the	Cognitive area	
Attention	mind processes information whilst ignoring information that is not focused on.		
		Attention	
	Simon & Chabris looked again at how the mind can select particular information to process and		
	seemingly ignore other stimuli by looking at visual attention.	Visual	
	Idea: Direct students to look at the real life application of these pieces of research and how this	Audio	
	affects their education. Students should be able to apply their understanding of attention and		
	cognition to their experience at school.	Selective	
	Idea: Direct students to look at weapon focus and apply understanding of these studies to EWT	Divided	
	and how attention is required to form memories.		



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ent		Activities/ ideas	Key issues to address	Resources
	Developmental – External influences	Key concepts: Bandura focused on how the behaviour children observe around them can influence their own behaviour, particularly aggression. Bandura found that role models displaying acts of aggression can lead children to imitate that behaviour using operant conditioning. This	Developmental area	
	on children's behaviour	acts of aggression can lead children to imitate that behaviour using operant conditioning. This showed that children learn their behaviour from those in their environment.	Nurture Behaviourism	
	benaviour	Chaney et al also looked at how children's behaviour can be gradually shaped to change their adherence to medication. Despite children not naturally liking using an inhaler this research	Health regimen	
		showed that by giving positive and negative reinforcers in their daily experiences children can be influenced to adhere to medical regimens.	Role models	
		Idea: Students create a magazine style article to draw on the implications of research in this area to suggest how important external influences are to children as they develop.	Reinforcements	
		Idea: Using a discussion board, pose the question 'If violent role models influence children's	Shaping behaviour	
		behaviour negatively, all violent role models should be banned to prevent any person learning violent behaviour. Discuss,' to allow students to draw on the theme, studies and criticisms.		
	Developmental – Moral	Key concepts: Kohlberg believed that all individuals develop morals through a series of stages and that cognitive development that enables more sophisticated moral reasoning occurs	Developmental area	
	development	irrespective of cultural factors.	Morals	
		Lee et al challenged the notion of a nomothetic explanation of moral development and suggested that the impact of cultural experiences must be taken into account when looking	Cultural factors	
		at an individual's moral reasoning. This highlighted the nature v nurture debate and made researchers question how innate moral development is and how it can be nurtured by upbringing.	Moral reasoning	
		Idea: Students can use a discussion board to discuss the statement ' <i>Moral development is innate and everyone will progress through the same six stages.</i> ' Using links such as those below to provoke their thinking along with their own recap of the studies.		
		Link: 'Born good? Babies help unlock the origins of morality' <u>https://www.youtube.com/</u> watch?v=FRvVFW85IcU		
		'How your brain makes moral judgements' <u>http://edition.cnn.com/2014/03/26/health/brain-moral-judgments/</u>		



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Content		Activities/ ideas	Key issues to address	Resources
	Biological – Regions of the brain	Key concepts: Sperry investigated the role of the corpus callosum as a neural highway to connect different regions of the brain in the two hemispheres. By isolating the two hemispheres through hemispheric disconnection the research was able to show the specific roles each hemisphere play and the localisation of function in the brain.	Biological Brain regions	
			Hemispheres	
		Casey et al. focused on a specific function, self-regulation, to find out more about the neural basis for this skill. The right inferior frontal gyrus was found to be involved in this skill as well as the ventral striatum.	Brain function	
		Idea: Students can research Paul Broca and Carl Wernicke to understand the development in neuropsychology and the understanding of different areas of the brain and their functions.		
		Idea: Students can each be given an area of the brain to research and bring their information to class to explain about localisation of function for that area. The task could be differentiated by getting some students to take on thinking hats and critique the research in areas you provide.		
	Biological – Brain plasticity	Key concepts: Blakemore & Cooper focused on kittens and the changes they experience, such as horizontal or vertical stripes, cause changes to visual neurons.	Biological area	Learner resource
		Maguire focused on human adults and how their brain is still able to change as she found the hippocampi differed when the navigational skill use was more extensive.	Brain plasticity Nurture	2.4.8.1
		Both pieces of research show how the brain can change physically and adapt to the demands of our environment not only in early development but in adulthood.	Brain structures	
			Neural network	
		Idea: Students watch 'Your brain is plastic' <u>https://www.youtube.com/watch?v=5KLPxDtMqe8</u> before completing a poster about what this means and how both studies show the brain has plasticity.	Grey matter	
		Idea: Students research methods used such as MRI to measure changes in the brain ready to discuss the use of technology in understanding how the brain adapts to our experience.		
		Idea: Students complete Learner resource 2.4.8.1 to support their preparation for the exam style question 'Discuss the extent to which psychology can be viewed as a science. Support your answer with evidence from core studies. (12)' in lesson.		



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Content		Activities/ ideas	Key issues to address	Resources
	Individual differences – Understanding	Key concepts: Freud was interested in the stages children go through during their development and how individuals progress through these differently. Freud documented the phobia of Little Hans and the unique causes of his phobia using a case study and detailed correspondence from	Individual differences area Disorders	
	disorders	his father.	Quasi	
		Baron-Cohen was interested in the unique ways that characteristics from the triad of impairment present themselves in different individuals and if there was a common cause of this to all individuals with autism. Baron-Cohen carried out a quasi-experiment to see if these differences were due to a central commonality of the disorder (theory of mind) or a more developmental issue. The nature of the differences in individuals are already mapped out using the structural model of the triad of impairment but Baron-Cohen was interested in why these differences occurred so set out to find the difference in the process.		
	Individual differences – Measuring differences	Key concepts: Gould was interested in how people differ by documenting the development of intelligence theory. Many have been fascinated by this difference among us all however theories and research into intelligence has shown cultural bias and demonstrated the importance of individual differences when measuring behaviour.		
		Hancock et al utilised content analyses to find common trends about crime narratives and the differing cognitive and emotional processes that criminals have. Hancock et al recognised that criminal behaviour is driven by complex and personal motivations but aimed to systematically measure the individual differences of criminals to establish common themes.		
		Idea: To consider the implications of intelligence testing and the measurement of differences. 'Should the immigration restriction act have been passed in 1924 in America?' Students then draw on use of Yerkes' findings and the criticisms of his research to discuss. Give students hint sheet with key terms.		



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Content		Activities/ ideas	Key issues to address	Resources
2.5 Areas	Social	 Starter: Give students a wordle of the key terms and assumptions of the approach. Students then ensure they can define the key terms and share ideas of assumptions on a platform such as Blendspace or Padlet. Idea: Provide images to represent the approach such as a group of people, the environment and sheep (conformity) and get students to write a paragraph that includes the images within it as a 'blurb' to the approach. Idea: To understand the real life applications direct students to read the below links and make notes. 	Environment Groups Authority Conformity Observation	
	Cognitive	Idea: Students watch 'Cognition: How your mind can amaze and betray you' and write what cognitive psychologists believe. Idea: Give students one page summaries of each of the pieces of research and get them to write key words from the study that link to the approach such as process.	Mind Processing	
	Developmental	 Starter: Provide a stimulus image of a child and ask students to discuss how they are different to adults. This would serve as an introduction to get students thinking how we go from one to the other. Idea: Give students Learner resource 2.5.3.1 and get them to elaborate on the strengths and weaknesses on a discussion board together. Encourage them to build on each other's comments and justify their points. Idea: Give students sentence starters and get them to give relevant examples from the studies to back these up. These can then be used in lesson and drawn upon. 	Stage theories Lifespan	Learner resource 2.5.3.1
	Biological	 Starter: Students write hashtags to represent the approach such as #brain, #REM and #neurons. Students can be challenged to only share new hashtags other students haven't said. Idea: Give students a stimulus image to do with the concepts learnt and ask them to use this and their knowledge to write an assumption of the biological approach. Link: 'The chemical mind' https://www.youtube.com/watch?v=W4N-7AlzK7s 	Brain Physiological processes Plasticity	
	Individual Differences	Idea: Students use a discussion board to discuss the typical research methods used in this area and why. Idea: Students research mental health and the real life applications of individual differences in diagnoses of disorders.	Unique Idiographic Dysfunctional behaviour	



Content		Activities/ ideas	Key issues to address	Resources
2.6 Perspectives	Behaviourist	 Idea: Get students to research the real life applications such as token economy and aversion therapy to then discuss in class. Idea: Students use discussion boards to suggest how they would apply different behaviourist theories in real life. Teachers could alternatively provide news articles and ask students to suggest applications to show the use of this area. 	Conditioning Nurture	
	Psychodynamic	Idea: Students read about the father of this perspective, Freud. http://www.bbc.co.uk/history/historic_figures/freud_sigmund.shtml Idea: Give students a worksheet with the debates on and get them to rate this area on each scale with reasoning in preparation for a lesson.	Unconscious Personality	
2.7 Debates	Nature/ nurture	 Idea: Set up a padlet and direct students to organise comments to argue to what extent behaviour is caused by nature and nurture on a scale. Idea: Students research about John Locke's belief in a blank slate. Idea: Students share evidence for nature/nurture on a given topic (such as autism) in preparation for a lesson. 	Nature Nurture Instinct Blank slate	
	Freewill/ determinism	 Idea: Pose questions on tiles in a Blendspace lesson that students can contribute ideas to. Idea: Give students research from individuals such as Watson who believe in hard determinism and get them to criticise this approach to explaining behaviour. Idea: Pose the question 'Can we ever predict behaviour accurately?' and get students to draw on research to contribute ideas prior to the lesson. 	Determinism Freewill Cause and effect	
	Reductionism/ holism	 Idea: Students watch a pre-recorded teacher lecture on the debate to ensure key terms understood before creating a revision poster of the terms with examples. Idea: Using previous notes give students a biological piece of research to explain in terms of this debate. Idea: Pose the question 'Can we reduce all behaviour, even psychological phenomena, to biological processes and terms?' Then get students to contribute ideas and critique the two opposing arguments. 	Reductionism Holism Basic/ fundamental components Constituent parts	



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nt		Activities/ ideas	Key issues to address	Resources
	Individual/ situational	Idea: Students rate each area of psychology to place it between the individual explanation and situational explanation with reasoning for their decision.	Individual	
			Characteristics	
		Idea: Students use Padlet to share areas of psychology that are seen as situational and critique the use of this explanation in preparation for the next lesson.	Dispositional	
		the use of this explanation in preparation for the next lesson.	Situational	
			Environmental factors	
			Social pressure	
	Usefulness of	Idea: Get students to mind map the different areas therapies and interventions prior the lesson.	Usefulness	
	research	Idea: Give students a selection of core studies and ask them what the point of each piece was	Treatments	
		and if it benefitted anyone.	Therapies	
			Further research	
	Ethical considerations	Idea: Give students a T/F quiz with past research on where they have to decide whether the research actually took place or not.	BPS Ethical guidelines	
			Decision making	
		Idea: Post research scenarios on Blendspace and get students to suggest ethical considerations that would need to be made before that piece of research took place.	BPS four ethical principles	
		Idea: Direct students to read the BPS ' <i>Code of ethics and conduct</i> ' and summarise the key points prior to the lesson.		
		Link: http://www.bps.org.uk/what-we-do/ethics-standards/ethics-standards		
	Conducting socially sensitive research	Idea: Get students to read 'What is sensitive research?' by the Cambridge University press (see link below) and then write a summary of what socially sensitive research is and considerations when carrying out this sort of research.		
		Link: 'What is sensitive research?' <u>http://assets.cambridge.org/97805217/18233/</u> excerpt/9780521718233_excerpt.pdf		
		Idea: On a platform such as Blendspace give students the statement ' <i>The interests of the individual are more important than the interests of society. Discuss</i> ' to contribute ideas to drawing on previous learning and further reading in preparation for a lesson on exam technique.		
		Idea: Give students examples of research and get them to share suggestions of implications the research could have on the target population studied. E.G. What are the implications of the research by Raine (1996) on violent criminals? Students can be provided with links to articles/ videos of the research.		



Content		Activities/ ideas	Key issues to address	Resources
	Psychology as a science	Idea: Students watch the link below before completing a T/F quiz about what qualifies as science.		
		Link: 'Is Psychology a Science?' https://www.youtube.com/watch?v=fyovWBAgCnc		
		Idea: Students create their own vine (<u>https://vine.co/</u>) to represent in six seconds if psychology is a science.		



Content	Activities/ ideas	Key issues to address	Resources
2.8 The practical applications of psychology	 Idea: Give news article relating to current topic and get students to pitch a potential explanation of the behaviour seen. Differentiate by giving students writing frames and options for areas to use in their explanation. Outcomes can be made clear by giving criteria such as using key terms, elaborating and linking to previous research. Idea: Post a brief clip of a news article and use a similar format to the SAMs exam question 'Briefly outline one core study and explain how it could relate to Soldier X's obedience to authority. (5)'. 	Recognise the psychological content in the source, make evidence-based suggestions in relation to the source, consider strengths and weaknesses of their suggestions, relate to their own previous practical experience	
	This can be discussed on Blendspace or submitted individually on Quizlet ready to be utilised by the teacher for in class peer assessment. Idea: Give students news articles and give them three studies to choose from to use in their explanation of the behaviour. Students can be challenged to provide two alternative explanations.		



Self-Report – Types of questions in a questionnaire

Self-report involves finding out what the respondents think by directly asking them in a questionnaire or an interview. Fill in the following worksheet to summarise the type of questions that may be asked in a questionnaire along with the pros and cons of these.

Type of question	Definition and example	Strengths	Weaknesses
Open questions			
Forced choice			
Likert Scale			
Semantic Differential Rating Scale			
Ranking			

Chalk and Cheese is a dating site that aims to match individuals to their perfect match. They ask all members to take their 'Relationship Questionnaire' to find out more about what people really look for in a partner. They ask their members to be honest when answering the questions so that they can find the best match. After answering the questionnaire they are given a personality profile which suggests what they are like and what sort of person they may be compatible with.

They are currently looking to branch out from their normal target audience of 18+ to 16-18 year olds and need your help to come up with some suitable questions to find out about. Your task is to create a 10 item questionnaire that includes a variety of questions that will help find out what individuals enjoy doing and what their personality is like. Once you have written your questionnaire trial it with 10 people and bring your findings to the lesson.

Remember that your questionnaires should adhere to the ethical guidelines.

Differentiation worksheet

Use the following table to plan your questions:

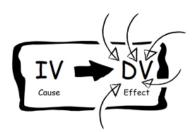
Use the following table to plan yo	
Type of question	Example questions
Open questions	
Forced choice	
Likert Scale	
Semantic Differential Rating Scale	
Ranking	

Learner resource 1.1.3

Experiments – Independent and dependent variables diagrams sheet

Students can annotate the following diagrams with appropriate examples for the IV, DV and extraneous variables using the scenarios teachers provide such as those below.





Task: Identify the IV, DV and potential extraneous variables in the following scenarios.

- a) Penny wishes to investigate the effect music has on memory by testing 16-18 year old students at sixth form during their lunchtime.
- b) Jack wishes to investigate if where students study affects their productivity and decides to carry out research on this in his sixth form centre with year 13 students in the common room and the library.
- c) A researcher is interested in the level of aggression people show after watching a violent scene on TV compared to a non-violent scene on TV.



Experiments – Type of experiment -earner resource 1.1.4 multiple choice quiz After completing the information sheet or lecture, answer the following multiple choice quiz to choose which type of experiment each scenario is. Natalie, a sports psychologist, wants to know if personality affects sport participation. She uses a sample of students from the local college and administers a personality test along with a questionnaire that includes questions about the individuals sporting behaviours.

- a. Laboratory experiment
- b. Field experiment
- c. Quasi experiment
- 2. A researcher is interested in the helping behaviour of individuals in the street so they arrange for a confederate to ask people for spare money in the street. One day the confederate does this they ask for the money so they can feed their family whereas the second day they ask for money so they can buy some alcohol. The researcher then records how much money is given in each condition and any other responses.
 - a. Laboratory experiment
 - b. Field experiment
 - c. Quasi experiment
- James is really struggling to revise so decides to investigate which revision technique is the most 3. effective. He asks his peers to revise some new material they have not seen before for 20 minutes during their study period. He gives 10 of them highlighters whereas the other 10 are asked to use mind maps. After they have finished revising James gives them all a quiz on the material to see which group scored higher.
 - a. Laboratory experiment
 - b. Field experiment
 - c. Quasi experiment
- 4. A researcher is interested to see if the level of caffeine students have affects their concentration in school. They ask students to record how many energy drinks they have had each day for a week and then group them into 'frequent use of energy drinks' and 'no energy drinks' before assessing their concentration.
 - a. Laboratory experiment
 - b. Field experiment
 - c. Quasi experiment



Variables and how they are operationalised – Operationalising variables worksheet

Task 1: Read the following scenarios and highlight the independent and dependent variables in different colours. Remember the independent variable means the variable that you will manipulate into two or more conditions whereas the dependent variable is the one you are measuring to see the effect.

Gina wants to know if boys are better at maths than girls by looking at their GCSE results.	Albert wants to know if children are more aggressive if they see an aggressive adult or not.	Researchers want to know if people will stay to watch a film if the only spare seats is in the middle of the row or not.
James wants to research the effect the weather has on Year 7's concentration in both sunny and snowy conditions.	Researchers believe that the appearance of food influences the perceived taste.	George wants to find out if exercise during the day has an effect on happiness levels.

Task 2: Describe how you could measure the following variables.

Anxiety	
Aggression	
Waths ability	
Driving skill	

Task 3: Describe an alternative way of measuring anxiety and explain why this may be better than your original plan.

Another way of measuring anxiety would be to...

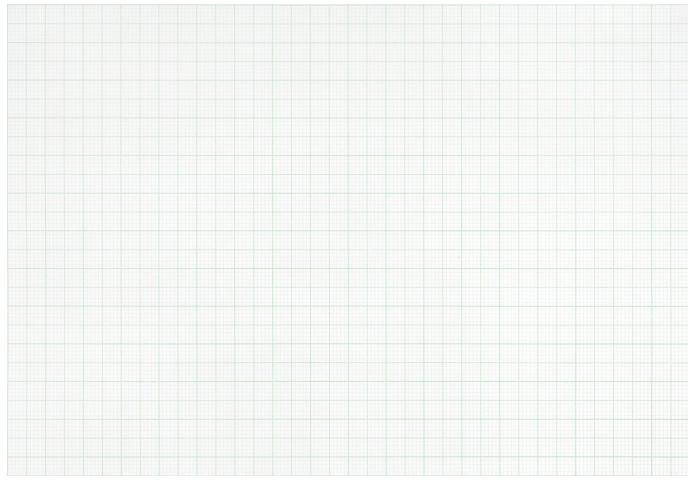
Data recording, analysis and presentation – Inferential statistics

Normal distribution

1. For the following data work out the mean, median and the mode.

Height (cm)	Frequency
150	52
155	206
160	550
165	1051
170	1800
175	2000
180	1785
185	1268
190	698
195	272
200	47
205	6

2. Now plot an appropriate chart for the data above. Make sure you label your chart appropriately.





Data recording, analysis and presentation – Inferential statistics: Chi-square test

A brief explanation

This test can be used when you are looking at the relationship between two variables that occur when the data is in the form of categories, and we are interested if one of the variables may affect the other - there is some sort of link or association between them.

For example we might observe people entering a cathedral and wonder if those entering with someone watching them are more likely to make a donation. In this case, our IV would be whether people enter observed or unobserved, and the DV would be whether they make a donation or not. We could collect this data in a table like that in the table to the right, this is known as a contingency table.

	Observed	Unobserved
Donated		
Did not donate		

Each person who entered would fall into one of the categories for being observed / not observed, and one of the categories for donation / no donation. They cannot be both observed and not observed, or donate and not donate. This is an important feature for a chi square test to be used – the divisions within the categories MUST be mutually exclusive – a person will fall into one and only one of the categories. This also provides us with a useful check when using this test – the total number of observations should be the same as the total number of participants.

The Chi-square test (pronounced Kai) looks at the pattern of observations, and will tell us if certain combinations of the categories (e.g. donate and observed) occur more frequently than we would expect by chance, given the total number of times each category occurred. It looks for an association between the variables. We are not able to use a correlation coefficient to look for the patterns in this data because the categories often do not form a continuum – i.e. we cannot say 'men' are higher or lower than 'women'.

The Chi-square test calculates the value we would expect in each cell of the contingency table if the observations are in the proportions of the row and column totals. We can work out this value ourselves by multiplying the row and column totals together, then dividing this value by the overall total. The test then calculates how different the observations are from these expected values, and gives us a probability for this occurring randomly.

Examples of suitable data

I did a content analysis to record how many people said the word 'horrendous', 'terrifying', 'scary' or 'upsetting' in a questionnaire about their phobia! My survey asked if students like punk, classical, pop or rock music.

Can you think of further suitable examples of nominal data? Remember in the exam you will have to know what level of data you have planned to collect. My behavioural categories are: texting, gaming, phone call, taking a picture and Snapchatting!



Reasons why you would choose each of the tests

I would choose this test because the data collected is nominal and the data itself is unrelated. For example texting and gaming cannot be added together – they are two separate activities which means I must compare.

How to carry out the chi-square test with worked example:

Look at the **contingency table**.

All a contingency table means is a table that displays the frequency distribution of the variables.

156 Manchester United fans and 204 Chelsea fans were asked whether they liked prawn sandwiches. Is there any evidence that there is a football supporters difference in preference for prawn sandwiches?

To use the chi-square test data must be presented in a contingency table!

	Man United	Chelsea	Total
Like	94	175	269
Did not like	62	29	91
Total	156	204	360

Step 1:		Man United	Chelsea	Total
Label the cells (excluding totals)	Like	94 a	175 b	269
	Did not like	62 c	29 d	91
	Total	156	204	360

Step 2: Work out the E values for each cell	Cell	Working	E value
<i>E just means the expected frequencies.</i>	А	(269 x 156) ÷ 360	116.57
	В	(269 x 204) ÷ 360	152.43
$E = \underline{\text{Total of Row x Total of Column}}$	С	(91x 156) ÷ 360	39.43
Total	D	(91 x 204) ÷ 360	51.57

Step 3:	Cell	Working	E value
Work out the X ² value (chi square)	А	(94 - 116.57) ² ÷ 116.57	4.42
$X^2 = (Total of Cell - E)^2$	В	(175 - 152.43) ² ÷ 152.43	3.34
E	С	(62 - 39.43) ² ÷ 39.43	12.92
	D	$(29 - 51.57)^2 \div 51.57$	9.88

Step 4: Work out the degree of freedom (df)	$Df = (2-1) \times Df = 1$: (2-1)
Df = (Total number of rows - 1) x (Total number of columns - 1)		
Degrees of freedom means the number 'entities' that are free to vary.		
Step 5:	X ² value	Total = 30.56
Work out the total X^2 Value by adding up all the individual X^2 values.	4.42	
	3.34	
	12.92	
	9.88	

Step 6:

Using a lovely table (from the link) of critical values, find if the data is significant.

To be significant X^2 value must be equal to or exceed that found in the table.

Use 0.05 degree of accuracy.

http://www.statisticsmentor.com/tables/table_chi.htm

The greater the difference between the observed and expected frequencies, the more likely the result is to be significant; so the calculated X2 should be equal to or larger than the critical values in the table.

If the calculated X2 is not bigger we cannot reject the null hypothesis that any differences are due to random variability.

Practical Activities – Apply your learning

Scenario 1: A school requires all its students to study one humanities subject only at GCSE and the staff are curious to know whether there is an association between the gender of the students and their choice of subject.

	Geography	History	R.E.	Total
Male	20	28	15	
Female	22	17	27	
Total				

Scenario 2: A school wants to know about the study patterns of students at the school. They collected the following data.

	Study Patterns			Totals of students
	Regular	Irregular	Mixed	
Group 1 (Social Science Students)	6	15	23	44
Group 2 (Technology Students)	10	8	24	42
Totals for study patterns	16	23	47	86 Total number of participants (N)

Scenario 3: A researcher was interested in what sort of music males and females buy. The table below shows the results of an observation carried out at a record store.

	Male	Female	Total
Rock and pop	50	30	80
Classical	20	60	80
Total	70	90	160

For each of the scenarios above can you:

- a) Explain why the data is nominal.
- b) Explain why the data is unrelated.
- c) Give a worked example of how to do the chi-square test in this case.
- d) Once you have worked out the level of significance in your practical project, explain what this would mean in relation to your null hypothesis.
- e) How could you obtain a different level of data if you were to carry out this research differently?



Data recording, analysis and presentation – Inferential statistics

Symbols often used in inferential statistics

- Equals
- Less than or equal to
- Less than
- < Much less than
- >> Much greater than
- Greater than or equal to
- Greater than
- Proportional to
 - Equivalent to



Practical Activities – Apply your learning

Self-report practical task ideally suited to Blendspace or a similar platform

Health psychologists have been increasingly interested in the eating habits of young children and how to encourage a healthy diet.

Recent news (<u>http://www.bbc.co.uk/news/world-us-canada-28355461</u>) has suggested that there are factors that lead children to eat unhealthily.

Your task is to prepare sample items for a questionnaire on healthy eating and the factors that may predict eating patterns in children based on this initial reading. You will need to consider a range of question types to gain an insight into this behaviour whilst ensuring your research is valid.

Use the following worksheet to support your plan.

Type of question	Example	Reason to use this type of question in this research
Likert rating scale		
Semantic differential rating scale		
Fixed choice		
Open question		

In preparation for the next lesson you also need to make notes in response to the following questions:

- How will you gather your sample?
- How will you ensure you adhere to ethical guidelines?
- What issues may there be with the validity of research in the eating habits of children?



Prompt sheet for planning an observation

Behaviour to observe:

Type of observation?				
Naturalistic	С	DR	Controlled	
Participant	C	DR	Non-participan	t
Overt	C	DR	Covert	
Qualitative	C	DR	Quantitative	
			_	
How will you carry out a content analysis for the notes collected?	ne rich and ir	n-depth		
Sketch your coding scheme for event or time sam	pling here:	Structured -	- What behaviou	ral categories may you use?
		Event samp	ling	Time sampling – What intervals will you use?



Individual studies – Piliavin et al (1969) Subway Samaritan

Students read the following fictional Email exchange between Darley and Piliavin. Piliavin carried out his research following Darley and believed he could improve research in this area. Consider what key psychological terminology that are missing and annotate the conversation to include these key terms.

Darley: Just saw your work, it looks pretty rubbish!

Piliavin: Darley, I'm afraid mate, that my research supersedes yours by far! I didn't put people in silly situations that they have never experienced before! I mean what was a bloke to do when speaking through an intercom to people he didn't even know! When would that even happen!

Darley: Oy, oy! At least I was ethical! I didn't send my undergrad students spying on the average Joe Bloggs! You didn't ask them to take part or let them know what would be happening! Then you watch them squirm for over 7 minutes whilst trapped on the carriage!

Piliavin: I get what you mean blud! But, yeh, I had no choice! I saw you had made it so obvious what you were trying to do that I wanted to be a bit more sly! On the side brother! I wanted to be able to help people to explain why Kitty, a REAL woman, in REAL life was not helped! Not see what people do in these strange situations you invent! I mean what would you do in a completely new situation? Would you be as relaxed as you usually would? I know what I'd do! I would panic! Big time!

Darley: You think you are so clever! Well at least I know if I want to see if my results are the same now I can do my test in exactly the same way easily! Piliavin, you need to consider as well that people had changed man!! People over the years have been taught to be more respectful and proactive – the media is all over that! Not only that but the laws and cultural norms have changed! It is not as acceptable now to judge people by the colour of their skin!

Individual studies – Bandura et al (1961) Transmission of aggression

This explains social learning theory which underpins Bandura's research on aggression in children.

Key Term	Process	Definition
Role model	The individual observes another person who they look up to.	Someone with whom an individual identifies.
Vicarious reinforcement	Operant conditioning – positive or negative reinforcement or punishment.	In operant conditioning this is indirect reinforcement.
Internal mental representation	They observe that the other person is rewarded in some way as a consequence of the behaviour.	Expectancies of future outcomes are represented and stored.
Imitation	The individual copies the behaviour which they previously observed.	Performance of a behaviour learnt by observation.
Direct reinforcement	The individual experiences the consequences of the new behaviour.	Internal reinforcement through positive mental images.
Self -reinforcement	They imagine themselves doing the same behaviour with the same consequences.	The individual values the new learnt behaviour and its maintained.

Task: Using the social learning theory explain how the following individuals developed the observed behaviour.

- A) Jimmy has started to swear and his parents are concerned about why this is. He is four years old and recently started attending nursery three days a week.
- **B)** Annie is 15 and has started to become interested in wearing makeup, particularly heavy eyeliner.
- **C)** Sam used to be quite laid back at school but since starting sixth form he has started to spend more time on his homework and paying more attention in class.
- **D)** Researchers have successfully worked with adults and tackled alcoholism the individuals experienced, resulting in the adults drinking less.



Individual studies – Bandura et al (1961) Transmission of aggression

Bandura card sort for procedure

Stage 1: Modelling	Stage 2: Aggression Arousal	Stage 3: Delayed imitation
Child enters the room individually.	The purpose of this stage was to annoy the children.	The children were in this room for 20 minutes!
The child colours in and can potato print.	Children may have found the adult scary when they were aggressive so they could calm down in this room.	Time sampling was used here to record behaviour every 5 seconds.
Once the child is settled the model is invited in.	The children became frustrated at this point as they could no longer play.	Three types of aggressive behaviour were recorded: Imitative aggression response, Partially aggression response and Non-imitative aggression response.
The model plays in the corner of the room.	The model is not present.	The model is now utilised as the observer.
There are the following toys: tinker toy set, Bobo doll, car and a mallet.	The child is taken from this room after two minutes of playing with the toys.	The child directly copies the behaviour of the model. Specific acts such as sitting on the doll are carried out and "POW".
After two minutes, in the aggressive condition, the model started to behave aggressively towards the Bobo doll using distinctive actions.	"These toys are reserved for other children."	The child is seen to copy the use of the mallet however they use it on toys other than the doll.
During their time in the room the non-aggressive model played with the tinker toy set and ignored the Bobo doll.	Non-imitative acts.	The children may sit on the Bobo doll but not behave aggressively.
Aggressive phrases such as POW and 'he keeps coming back for more' were used to back up physical acts.	Nice toys include a fire engine, aeroplane, spinning top and doll set.	The children are novel in their behaviour and may punch or slap the doll, act out gun play or act aggressively to other toys.
The child was removed after 10 minutes.	Imitative aggressive acts.	Partially imitative acts.



Individual studies – Bandura et al (1961) Transmission of aggression

After completing the flipped learning activities have a go at the quiz below.

1. Bandura et al's research was:

- a. An experiment with matched pairs design
- b. A controlled observation
- c. An experiment with repeated measures design
- d. A naturalistic observation

2. How many participants were there?

- a. 24
- b. 72
- с. 34
- d. 32

3. How long was it before the adult played with the bobo doll in room 1?

- a. 10 seconds
- b. 60 seconds
- c. 5 minutes
- d. 100 seconds

4. What was the purpose of the children going into room 2?

- a. To become bored
- b. To have a nap
- c. To become annoyed/ mild aggression arousal
- d. To display mild hyperactivity

5. What toys were in room 2?

- a. Barbie, dolls house, xylophone
- b. Fire engine, spinning top, dolls set
- c. Dinosaur, beanbag, gun
- d. Snakes and ladders, ball, chalk



Individual studies – Chaney et al (2004) Funhaler study

Student activity

Once you have learnt about operant conditioning use the grid below to show how funhalers reinforce the correct use of the inhaler by giving examples.

Reinforcing	y behaviour	Punishment	The use of funhalers could
Positive reinforcement	Negative reinforcement	Weakens behaviour	
Strengthens behaviour by providing a consequence that is rewarding. The behaviour that is reinforced is not always the desired behaviour, nonetheless rewarding it encourages future repetition.	This is where you remove any adverse stimuli when the desired behaviour is shown. Aversive stimuli normally involve some sort of discomfort either physically or psychologically.	This is the opposite of reinforcements as it weakens the behaviour. Positive punishment: Presenting an unfavourable event in order to weaken the response it follows.	
 Examples: A sticker for good work A bonus at work for meeting your targets "Well done Freddie" Getting attention for misbehaving Getting a new phone for doing your chores. Getting to go to isolation because you're being rude. 	 By carrying out the desired behaviour a person <u>avoids</u> the aversive stimuli <u>before</u> they happen. Examples: If you don't do your homework you will have to pay £5 so by doing your homework (desired behaviour) you avoid the adverse stimuli By pressing the lever you stop the electric shocks. 	 Examples: A smack for swearing Negative punishment: Punishment by removing something favourable to the individual. Examples: Grounded for being naughty The aim of punishment is to see a decrease in the behaviour that is undesired. 	



Individual studies – Kohlberg (1968) Stages of moral development

Moral dilemma:

There was a woman who had very bad cancer, and there was no treatment known to medicine that would save her. Her doctor, Dr. Jefferson, knew that she only had 6 months to live. She was in terrible pain, but she was so weak that a good dose of a pain killer like either morphine or ether would make her die sooner. She was delirious and almost crazy with pain, and in her calm periods she would ask Dr. Jefferson to give her enough to kill her. She said she couldn't stand the pain and was going to die in a few months anyway. Although he knows that mercy killing is against the law, the doctor thinks about granting her request.

Should the doctor give her the drug?

Should the woman have the right to make the final decision? Why? Why not?

Dilemma from Colby, A., Kohlberg, L., Gibbs, J., & Lieberman, M. (1983) A longitudinal study of moral judgement. *Monographs of the Society for Research in Child Development*, 48 (1-2 Serial No. 200).

Kohlberg was interested in the **reasoning** behind moral decisions rather than just the final decision individuals come to. Individuals may decide that the doctor should have given the drug to the lady or not, the key interest is **why** they decide to do this.

Task: Predict what reasons may be given for giving the drug and not giving the drug at each stage.

Give the drug	Do not give the drug
Preconventional morality	
Conventional morality	
Postconventional morality	

Individual studies – Sperry (1968) Split brain study

Students to complete the multiple choice questions below after completing flipped learning tasks.

1. Information in the right eye is processed

- a. In the right hemisphere
- b. In both hemisphere
- c. In the left hemisphere
- d. In your foot

2. During a typical task when a stimulus is presented to the left visual field of a split-brain patient they should not be able to

- a. Draw the stimulus
- b. Name the stimulus
- c. Selecting the object presented among a collection of other pictures and objects
- d. Respond non-verbally by pointing to a matching picture

3. The participants were

- a. 50'split brain' patients
- b. Prisoners
- c. 11 'split brain' patients
- d. 32 students

4. Information from the left visual field is processed in

- a. Both hemispheres
- b. The right hemisphere
- c. The left hemisphere

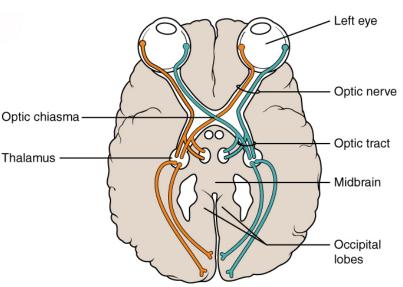
5. Information from the right hand is processed

- a. In the left hemisphere
- b. In the right hemisphere
- c. In both hemispheres



Individual studies – Blakemore and Cooper (1970) Impact of early visual experience

The visual cortex accounts for about 20% of the entire cortex in a human brain and is very complex. Research has found that different parts of the visual cortex are responsible for processing different elements of the visual experience, these include: colour, form and motion. Following on from this research has questioned the extent to which these areas of the brain are already fully programmed to deal with visual stimuli in the environment or whether they respond to early life experiences.



Three key ways have been used to research the origin of our visual abilities and perceptions of the world:

- 1) Newborn animals have been researched.
- 2) Animals and humans have been selectively deprived or totally deprived of visual input in their early life.
- 3) Adult humans and animals have been tested when exposed to optically distorted visual stimuli.

There has been a debate about when the visual processing system in our brains develops but research on cats and the specific activity of individual neurons in experimental research has shown that early visual experience play a significant role in the formation of the visual cortex and therefore how visual stimuli are experienced.

Research task:

- 1) What is the physical structure of a cats brain like?
- 2) What were the two conditions Blakemore & Cooper used in their experiment?
- 3) Why were these two conditions chosen?



Individual studies – Maguire et al (2000) Taxi drivers

Student activity

Equipment	Definition	Strengths	Weaknesses
Voxel-based morphometry (VBM)	This is a technique that we call neuroimaging. This particular type of neuroimaging allows us to look at the brains anatomy and measure changes in particular brain structures.	It allows us to examine the differences in the structure of the brain quantitatively by measuring the 3D volume of the brain and its structures.	We still do not know entirely what the change in volume represents as the brain structure is very complex.
Magnetic resonance imaging (MRI)	This is a type of scan that uses strong magnetic fields and radio waves to produce detailed images of the inside of the body.	This is a very safe method of collecting data from participants if they are 'average'.	This method of collecting data is very costly as the equipment and the researchers who are trained to use it cost a lot of money!
Positron emission tomography (PET)	These scans are used to produce detailed three-dimensional images of inside the body. A radioactive chemical is given to the patient and then this is traced in the body.	The radiation is similar to that we are exposed to in real life.	This type of scan exposes the individual to radiation.
Assessment of patients symptoms	This is where the doctor/ clinician will discuss the signs the individual has noticed to indicate they may be unwell.	This allows us to take the patients experience into account and the symptoms can be described clearly.	This can often be subjective.
Electroencephalogram (EEG)	This is the recording of brain activity. The brain's cells produce tiny electrical signals when they send messages to each other. During an EEG test, small electrodes are placed on the scalp to record this activity.	This is a relatively cheap method of measuring physiological activity.	It can't determine specific neural activity like other methods; rather it measures activity in the cortex.



Core studies in their pairs – Triangle template

Students can use the below Venn diagram to show how two core studies are similar and different using the points of comparison as prompts.



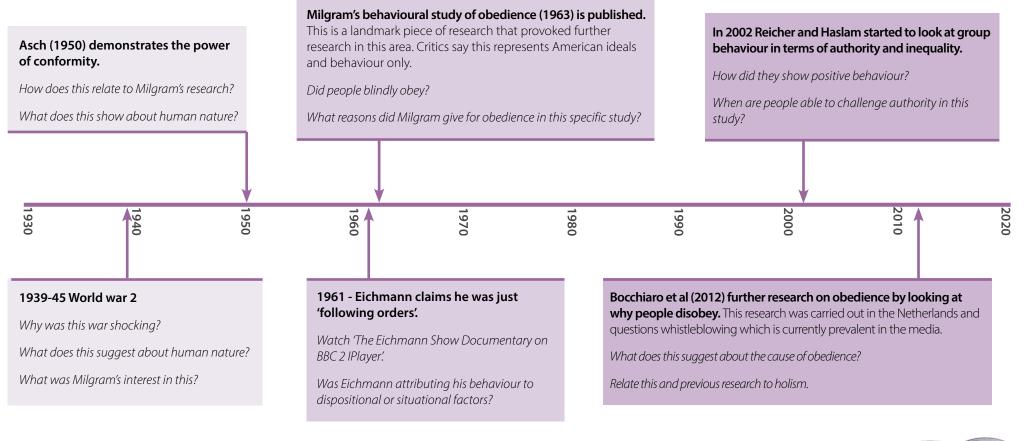


Key themes and areas in psychology – Social: Responses to people in authority

You have already learnt about the two key studies in this area and need to understand:

- How each core study relates to its theme
- How each core study relates to the area of psychology it is place in

Task: Complete the following timeline to explain how Milgram's research and Bocchiaro's research fit into the social approach and focus particularly on responses to people in authority. The questions in *italics* are prompts for you to answer.





Key themes and areas in psychology – Social: Responses to people in need

You need to be able to explain how each core study relates to its area and key theme. Both Piliavin et al and Levine et al's research focused on the responses to people in need and the factors that lead to helping behaviour. Within the social approach these studies focus on observing how people react to people in need with a number of key variables such as: nature of need (ill, drunk, blind, dropped object), number of other potential helpers, race, culture and city size.

earner resource 2.4.2.

Highlight the aspects of the study that use social psychology to explain responses to people in need. Remember these phrases will use terms from the assumptions of the approach to explain the research.

Aim: To investigate the effect of several variables on helping behaviour using the express trains of the New York 8th Avenue Independent Subway. It was predicted that a person who was drunk would receive less help than someone who ill. The race of a victim was also predicted to affect the rate of helping. Modelling was also investigated and whether seeing another person helping would encourage participants to help. Group size was the final IV to be considered, would the size of the group affect helping behaviour and demonstrate the 'diffusion of responsibility'?

Method: This was a field experiment to see the affect the four IV's had on the participants helping behaviour. On each trial 4 students acted out an emergency. One confederate would collapse in the train carriage 70 seconds after leaving the station. If the victim received no help by the time the train slowed to a stop the model would help him. The two other confederates would record what happened. **Findings:** If the victim was ill they were more likely to be helped than if they were drunk. 90% of the spontaneous helpers were male which reflects the values of society at the time, with comments such as "It's a man's job to help." There was a tendency for same race helping and this was more prevalent in the drunk victim condition.

Conclusions: The researchers proposed a model of response to emergency situations and used the Arousal Cost-Reward model, a heuristic device that could be used to predict helping behaviour in any given emergency. Piliavin et al went on to explain the findings of the study in terms of cost-benefit. When confined to a space, with no means of leaving, individuals respond more positively to those in need by helping. This furthers research carried out previously, such as that by Darley and Latane, as it suggests that the decision to help includes many variables such as whether others can see you, ability to escape and the reason help is required.

Discussion: Helping behaviour is very interesting and the findings from this are useful in helping us consider why people are helpful, altruistic and selfish. This idea of cost-benefit is deterministic and suggests behaviour is very predictable; are humans quite as selfish as this suggests?

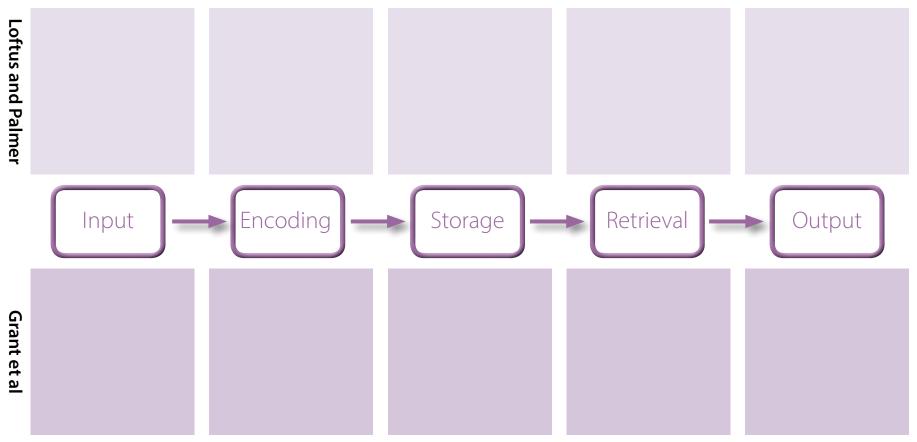
Challenge: Create a study summary for Levine et al's research that incorporates links to the social approach like the above example.



Key themes and areas in psychology – Cognitive: Memory

Loftus and Palmer and Grant et al believe that the mind is like a computer and information is inputted, processed and the stored for later use. They also believe that the cogs that make up the processing in our mind can have an effect on the reliability of our memory.

Annotate the below flowchart to demonstrate what each research team found about how memory works in terms of the cognitive processes.



Once you have reviewed how memory was mapped out for each study complete the following tasks:

- a) Elizabeth Loftus claims that "Human remembering does not work like a videotape recorder or a movie camera." To what extent is this true? Use both pieces of research as evidence.
- b) Describe four factors that may affect the accuracy of memory recall and explain why this happens.
- c) What are the real life applications of understanding memory further and understanding how the cogs in our mind work?



Key themes and areas in psychology – Biological: Brain plasticity

Science is defined as the systematic study of behaviour based on observation, experiment and measurement. Scientific knowledge is gathered via the scientific method which involves formulating a hypothesis, testing this hypothesis and either verifying or falsifying it.

The question is, is Psychology the science of mind and behaviour?

There are various arguments For and Against Psychology as a Science.

This includes:

For:

- Ψ Based on empirical evidence which means that psychologists create hypotheses and test them.
- Ψ Psychology utilises scientific methods that are highly controlled and standardised
- Ψ Psychology tests theories and generates testable predictions (hypotheses) based on these theories.

Against:

- Ψ Psychology is concerned with studying humans, as we are testing ourselves it is argued it is impossible to be objective in research.
- Ψ Humans change their behaviour for a multitude of reasons when participating in research so it is nigh on impossible to test behaviour accurately.
- Ψ Qualitative methods are often subjective and therefore not scientific.

Quick reference guide - How do we know if something is scientific?

- Can you set testable predictions (hypotheses)?
- Can you replicate the research easily?
- Can you falsify the findings? In other words can you disprove the theory as well as prove the theory?
- Is the data collected objective? How open to interpretation is it? Is there a chance it could be subjective?
- Did the researcher ensure they had controls in place to eliminate extraneous variables?

Task: In preparation for the lesson look at the biological research by Blakemore & Cooper and Maguire and make notes about how scientific psychology, within the biological approach, is.

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Areas in Psychology – Developmental

There are various strengths and weaknesses within the developmental approach.

Use the research within the developmental approach to elaborate on why the following are strengths and weaknesses.

Strengths

- We can see the effects of maturation (aging) and experience.
- Longitudinal research is a very useful way of investigating life changes.
- These studies illustrate three different theories of child development – psychoanalytic, structuralist and behaviourist.
- Useful in education and childcare.
- Helps us to understand children's development and abnormal development.

Weaknesses

- Some research is unethical.
- Longitudinal studies suffer from attrition (participants drop out).
- Case studies are difficult to generalise from.
- Laboratory studies may have low ecological validity.
- Deterministic too much emphasis on early years.



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