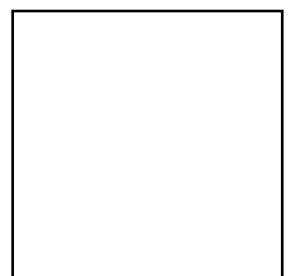
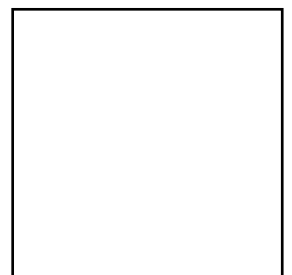
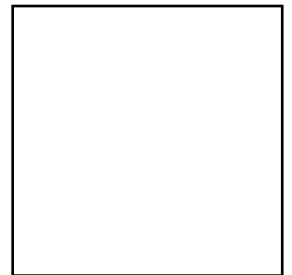


**Nelson Thornes  
Distance Learning**

# **AS Psychology**

**Matthew Peacock  
Janet Marsden**



Nelson Thornes

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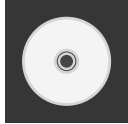
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Writing



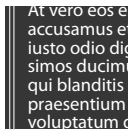
Hand-in activity (either by post or e-mail)



Listening



Discussion



Reading



Internet research or online activity

# Study Calendar



## AS Psychology | 2011–12

Study Week	Start date	Unit no	Unit Descriptor	Externally Assessed Assignment
1			Student information & Introduction	
2		1.1	The Nature of Memory	
3		1.2	Models of Memory	✓
4		1.3	Eyewitness Testimony	✓
5		2.1	Early Social Development	
6		2.2	Bowlby's Theory of Attachment and Attachment in Everyday Life	✓
7		2.3	Disruption of Attachment and Attachment in Everyday Life	✓
8		3.1	Investigation Design	
9		3.2	Methods and Techniques	✓
10		3.3	Data analysis and Presentation	✓
11		4.1	Stress as a Bodily Response	
12		4.2	Stress in Everyday Life (Part 1)	✓
13		4.3	Stress in Everyday Life (Part 2)	✓
14		5.1	Majority and Minority Influence	
15		5.2	Explanations of Majority and Minority Influence	✓
16		5.3	Obedience	
17		5.4	Independent Behaviour	✓
18		6.1	Explaining Abnormality	
19		6.2	Approaches to Abnormality	✓
20		6.3	Biological Treatments of Abnormality	
21		6.4	Psychological Therapies for Abnormality	✓
22		Revision		
23		Revision		
24		Revision		



# Student Information



## **Welcome to AS Psychology!**

The information set out below is provided to help you through the course so that you know exactly what we will be covering each week and what work you need to prepare. As this is a distance learning course, you are responsible for your own learning, something that you are probably not used to. The more time and effort you put into this course, the more you will get out of it.

Tutorials are very different from lessons—you will not be lectured or spoon-fed information. Each week you will be set a certain amount of work to prepare for the next tutorials. During tutorials we will go over what you have learned during your preparation time and answer any questions or queries you may have. This will help you understand any points you have not understood when going through the work by yourself. You will learn in a number of different ways in which you will be required to play an active part. It is therefore essential that you prepare ALL of the set work thoroughly so that you can participate fully. If you get behind at any stage, it will be very difficult to catch up which will then affect your ability to succeed with this course.

Distance learning will only work for you if you are prepared to work for yourself.

If you are struggling with any of the work that you have been asked to cover, you will have access to your tutor via e-mail or letter at any time during the week. You can also speak to the Link Tutor at your school who will contact your tutor direct on your behalf.

REMEMBER, your tutor is there for you! Do not get to a stage where you want to give up or feel that you just cannot do the work before you ask for help.

ALSO REMEMBER—the only stupid question is the one that you don't ask!!!!

## **What will we be covering each week?**

On page v is a study calendar, which details what work you will be covering each week. It will detail both the divisions of work that you need to complete and additional assignments. You will be referring to the calendar often throughout the course so it is important that you put the study calendar at the beginning of your folder so you always know where it is.

You will find the assignments on p. 271. This will provide you with the details of all the assignments that you will be completing and also some hints and tips to help you complete. It is recommended that you also put this booklet at the beginning of your folder so you always know where it is.

## **Submission of assignments**

Assignments should be submitted on or before the deadline set in the tutorials.

You can submit assignments by e-mail to:

or to the Link Teacher:

If you do not understand part of the assignment or are struggling with it in any way, then ASK. Don't just leave it and don't answer only part of the question as this will affect your grade. Your tutor will give you all the help possible to enable you to complete the work. Don't be afraid to ask as that is what your tutor is there for.

Failure to submit assignments will be reported directly to the Link Tutor at your school. This may affect your ability to continue with the course, your predicted grade, your exam success and your UCAS reference. Deadlines are important as they are an assessment of your understanding and progress. Your tutor will be aware of any additional information that you require or assistance that you may need in understanding certain subject areas when assignments are marked. It is therefore in your best interests to ensure that you do the work.

## **Other important information**

Your tutor will visit you twice during the year. The first visit will take place sometime during October and the second during March/April. He/she will spend two hours with you on both occasions. This will be an opportunity for you to ask any questions, have an individual discussion with your tutor, revise any particular areas of the course, and so on. Your tutor will be visiting schools for two weeks so you will have a week where there will be no formal tutorial but you will be set work to do during this time.

Your tutor will communicate with you via e-mail with extra handouts, tips for assignments, changes to tutorials, deadline reminders, etc, throughout the year. Please provide the correct e-mail address and ensure that you let your tutor know should you change your address. You will receive e-mails on a regular basis so please provide an e-mail address that you use regularly to ensure that you are kept up-to-date.

After Christmas, you will be set a mock exam. This will give you a good idea of what the actual exams will be like in May. It will show you how much information you need to get down in the time available and also how much revision you will need to do.

Once we have completed all of the course material, we will move on to revision for the exams. Also ensure that all your notes are completed and that you ensure you have any extra handouts/additional information that you have been provided with.

Attendance at tutorials is compulsory, as is good behaviour and doing the work. Attendance, behaviour and performance are reported to the Link Tutor at your school after every session. Your Link Tutor will be told whether you have completed your preparation work for the session and whether you have submitted assignments by the deadline. If your behaviour becomes a problem during tutorials you will be removed to enable other students to work. Please be considerate of your fellow students.

We hope that you really enjoy your distance learning course this year.

Throughout the course you will use valuable learning tools that will help you in the future, particularly as you apply to university. You will be able to show that you are very able to work on your own, that you are organised, that you are good at time management and that you can meet set deadlines. In addition, the assignment work will help you to develop and refine skills for constructing valid arguments, evaluation and assimilation.

## **GOOD LUCK!**

Over the page please find a student details form. Please complete the form and your tutor will request that the form be posted or collect it during their first visit.

# STUDENT DETAILS SHEET

**School:**

(Photograph)

Name:	
Address:	
Postcode:	D.O.B:
Phone:	Mobile:
E-mail:	

GCSE Qualifications		
Subject	Grade	Year

AS & A2 Study			
Subject	AS/A2	Grade	Year

GCSE mean Score and Grade	
Score	Grade

Career Aims
-------------

Hobbies/Interests
-------------------

Things that may be a barrier to learning
--

Do you have a part-time job? Y/N What is it? _____ How many hours a week? _____. <b>FURTHER RELEVANT INFORMATION:</b>
--

# Introduction



Over the next two years we shall be studying the core areas of psychology; cognitive, developmental, biological, individual differences, social and research methods. There will be in-depth consideration of explanations from different psychological approaches, and the issues and debates that are a common feature of psychological research and theory.

In **Year 1** we shall study Cognitive Psychology, Developmental Psychology and Research Methods; Biological Psychology, Social Psychology and Individual differences. At the end of this, you will sit two module examinations, which will give you an AS qualification in Psychology.

In **Year 2** we shall study three topics in Psychology and Psychopathology; Psychology in Action and Research Methods. At the end of Year 2 you will sit two module examinations, which combined with the AS will give you an A level qualification in Psychology.

The subjects covered in Year 1 are:

## **AS Psychology**

### **1—Cognitive Psychology, Developmental Psychology and Research Methods**

Memory: Models of memory; Memory in everyday life

Early Social Development: Attachment; Disruption of attachment; Day care and social development

Research Methods: Methods and techniques; Investigation design; Data analysis and presentation

### **2—Biological Psychology, Social Psychology and Individual Differences**

Stress: Stress as a bodily response; Factors affecting stress; Coping with stress; Managing stress

Social Influence: Majority and minority influence; Obedience to authority; Independent behaviour

Psychopathology: Defining psychological abnormality; Biological and psychological approaches to psychopathology; Therapies

#### **The main textbook for Year 1 is:**

McGinley, R; Willerton, J; Willson, J; Bailey, J, *AQA AS Psychology A Student's Book* (Nelson Thornes 2008) ISBN 978-0-7487-9823-0

# Cognitive psychology

The word cognition comes from the word cognitive.

## Activity 1

Look up the words psychology and cognition in a dictionary or on the internet.

Psychology =

Cognition =

At vero eos e  
accusamus et  
iusto odio d  
simos ducim  
qui blanditi  
praesentium  
voluptatum d

Cognitive psychology is the study of thinking processes. This can incorporate a number of different areas in psychology; perception, language, intelligence, motivation and emotion and memory to name just some. In each of the core areas, you will be focusing on a specific topic. The Psychology AS course focuses specifically on the area of memory. In terms of the relationship between memory and thinking, it would be difficult to have one without the other. Memory therefore forms an important part of thinking processes.

## Memory

What would life be like if we didn't have the facility to remember? Many of you will be familiar with the word amnesia. Amnesia refers to memory loss. What you probably don't know is that there are two types of amnesia—anterograde and retrograde. These represent two distinct types of memory loss—the first refers to inability to be able to acquire new memories and the second refers to the inability to be able access older memories.

## Activity 2

1 If you had anterograde amnesia what wouldn't you be able to do?



2 If you had retrograde amnesia what wouldn't you be able to do?

Because these two types of amnesia have been observed it suggests that memory is structured into two distinct types—these types are what we refer to as short-term memory (STM) and Long-term memory (LTM).

### Activity 3

For the following question circle either *STM* or *LTM*

- 1 Anterograde amnesia affects which type of memory *STM/LTM*?
- 2 Retrograde amnesia affects which type of memory *STM/LTM*?

This distinction is very important and forms the basis for the start of our look at memory.



Participants are a vital part of the research process. In tutorials you might from time to time find that you are the participant in some research activities. To answer the next activity, you will need to find a willing participant to take part. This could be a friend or family member, just so long as they are willing to take the activities seriously!

### Activity 4

What is your earliest memory and how old were you when you first had this memory?



### Activity 5

- 1 Which type of memory (*STM* or *LTM*) did you use when answering this question?



2 What does this tell us about long-term memory?

Ask your participant whether they'd be willing to take part in a memory test.



**Activity  
6**



Read out the following lists of numbers to your participant and ask them to recall the numbers back aloud to you in the same order.

2      5      1

Now repeat the exercise with the following lists. Read from left to right and ask them to repeat the numbers back to you in the same order.

3      6      1      3

7      3      9      8      5

5      1      9      5      8      3

4      8      1      9      5      1      7

3      8      5      1      9      7      3      5

1      5      4      9      7      2      6      2      8

3      7      4      1      8      6      4      8      3      8

If your participant could manage the last list of numbers without making a mistake, they were doing very well!



**Activity  
7**



1 At what point does your participant make mistakes?

2 Which type of memory did your participant use when doing this task?



## Developmental psychology

Developmental psychology looks at human development from any period from birth to death. Our focus will be to look at early child development. Many psychologists have suggested that it is our early experiences that shape how we behave later. More specifically some psychologists would argue that by the time we are six years old our emotional responses to others will already be firmly established. Our relationships with our brothers/sisters, friends, peers and parents are well established by this point. In addition, it has been argued that looking further into the future our romantic relationships and even how we behave as parents ourselves is often a reflection of our experiences in early childhood.

You can probably begin to see the reasons why early childhood is such an important area for developmental psychologists to be interested in.

This might be good idea to introduce you to a long-running debate in psychology. The debate centres on the degree to which we are born with (inherit) or have to learn certain behaviours. The debate is referred to as the nature, nurture debate:

- nature—the degree to which we are born with behaviours
- nurture—the degree to which we learn behaviours.

Most animals are born with behaviour patterns that give them survival advantages. When goslings are born for example, they inherit a behaviour pattern that means they will follow the first moving thing that they see—this will ordinarily be the mother.

### Activity 8



Can you think why it would be an advantage for goslings to follow their mother? (*Hint: What will they get in return for following?*)



Psychologists can't always agree on the degree to which we inherit behavioural patterns and the degree to which we learn them.

## Activity 9



- 1 Are you aware of any behaviour patterns that a child is born with?  
(*Hint: Think about the behaviour patterns that get parents to respond to their needs.*)

- 2 Can you think why it would be an advantage for babies to be born with this behaviour?

The aspects of behaviour that you will be focusing on in this section of the course are social, cognitive and emotional behaviours:

- social behaviours—sociability and relationships with others
- cognitive behaviours—thinking, memory, intelligence, reasoning and problem solving
- emotional behaviours—emotional security—e.g. how secure you feel in relationships with others.

Psychologists are very interested in how our early experiences shape these aspects of our behaviours, particularly whether our early experiences help or hinder these behaviours.

## Activity 10



- 1 Find a willing participant and ask them about their early day care experiences before going to school. Record their experiences here. You can discuss them with your tutor in your next tutorial.

- 2 Ask them to indicate the degree to which these experiences helped them cognitively, socially and emotionally on the scale below. You might need to explain the word 'cognitive' to your participant.

The degree to which early day experiences helped (1 = not very helpful and 5 = very helpful):

cognitively	1	2	3	4	5
socially	1	2	3	4	5
emotionally	1	2	3	4	5



## Biological psychology

An introductory course in psychology wouldn't be complete without looking at the organ responsible for the thought processes that led you to choosing this course in the first place—the brain. In this part of the course, you will be looking at the structure of the brain and how areas of the brain are associated with physiological changes both within and outside the body.

The area you will be focusing on here will be stress.

Many definitions of psychology refer to the word mind. You might want to think about a mind and a brain. Are they the same thing or different things?

The brain represents the organic grey matter whereas the mind is qualitatively different and not something we can see. By focusing on the areas of stress, you will hopefully begin to see the differences.

### Activity 11



Look at Figure 1 and write down what it is a picture of.

**Figure 1**  
*Ambiguous  
Stimulus*





The picture is an ambiguous picture. Ambiguous means it could be two or more things. When people look at the picture, some people see a young woman and some people see an old woman. Don't worry if you can't see them both, your tutor will show you in your first tutorial.

One key feature of understanding how our mind works is to appreciate something called perception.



**Activity  
12**

Ask a willing participant to list down situations where they feel the most stressed.



Ask them to write down what they think about in any of these stressful situations.



It's probable that, when answering the last question, you participant will say that the experience of stress has been a negative one. It is important to appreciate however that stressful experiences can be positive. Ask you tutor to explain positive stress or what is called eu-stress.

If your participant's experience of stress is negative, it's likely that he or she perceives the situation in a negative way. It is probable that if they started to think about the situation in a more positive way then they might change the way they feel about the situation and possibly reverse the negative thoughts that they have. In addition, they might possibly begin to feel more positive.

## Activity 13



If your participant's response to the previous activity was to write down some negative thoughts, ask him or her to think about and write down some positive alternative thoughts.

Negative thoughts:



Alternative positive thoughts:

Remembering the alternative positive thoughts next time they are faced with the same situation might make the situation less stressful.



## Individual differences

It would not be obvious to any new psychology student what the area of individual differences might be looking at. The more familiar word for this area of psychology would be 'abnormality'. Individual differences refer to the way in which we as individuals are all different. We all differ on the basis of things like personalities and intelligence for example. We also differ on the extent to which we are 'normal', and to the same extent 'abnormal'.

In the same way that the experience of stress is commonly thought of as a negative experience, the same could be true of abnormality—although like stress abnormality can be positive. To be extremely intelligent for example is considered desirable by most people but only a small proportion of people are deemed to be so. If you have an IQ (Intelligence Quotient) score of 200 for example (twice that of the national average), you could conceivably be called abnormal. Many athletes have abnormal abilities in comparison to the rest of us.

Psychologists have tended to focus on the less desirable abnormal behaviours that present problems for people and others around them. It is clear however that the line between normality and abnormality can become blurred from time to time and that often we need to take account of a number of internal and external factors before deciding upon whether a behaviour should be regarded as abnormal.

One starting point for psychologists when deciding upon the normality of behaviour is to consider social norms.

## Social norms

In school there are often groups of students that are friends because they share common interests such as clothes and music.



### Activity 14

List as many examples of different groups in your school that you have been able to identify.



In addition to interests, clothes and music we could probably add social norms to this list. The groups you identified above will probably have a number of shared behaviours within the group that the group deems acceptable or unacceptable. These are unwritten rules that are shared by the group and represent a social norm within the group.

## Activity 15



From one of the groups identified above, can you identify a social norm for that group?

Social norms are observable everywhere. A social norm for pet owners is to talk to their pets. Some gardeners talk to their plants! For non-gardeners and non-pet owners these behaviours appear to be quite odd, and we might even call them abnormal. Social norms can apply to groups within society but some social norms might also be representative of society as a whole. You may, for example, have appreciated if you have visited other countries that not everyone is willing to wait in a queue quite as readily as we might. To finish a meal by eating everything on the plate is seen as disrespectful in some countries and your plate will continue to be refilled until you leave something.

The desirability of a behaviour; the context and culture in which behaviour is exhibited; and ultimately whether the behaviour is harmful to the individual or those around them, all need to be taken into account before behaviour should be labelled abnormal.

To consider the impact that culture has on abnormality, have a look at the following disorders:

- Pibloqtoq: this involves an uncontrollable desire to tear off all one's clothes and go outside.
- Witiko: the person goes off ordinary food and begins to feel depressed and anxious; this often develops into acts of murder and cannibalism.
- Koro: this is an anxiety disorder in which the male believes that his penis is slowly shrinking and retracting into his abdomen and that he will die when the retraction is completed.
- Pibloqtoq is more common in Greenland, Alaska and the Canadian Arctic.
- Witiko is more common in Canadian Indians.
- Koro is more common in China.

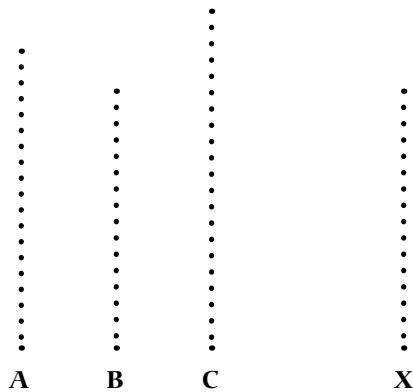
Some appreciation of the culture within which these disorders are recorded would go some way to formulating a greater understanding of those who suffer from them, and ultimately formulate a corresponding treatment to help them.

## Social psychology

Who makes the decisions in your life? Certainly when you're younger it is common for a number of key decisions to be made for you by parents. As we get older, we tend to make the majority of decisions by ourselves. What many of us fail to acknowledge however is the degree to which 'our' decisions are influenced by the environment around us and the people in that environment. Social psychology attempts to look at what we call situational factors that impact on our thoughts and behaviours.

### Activity 16

Look at the following set of lines and decide, without using a ruler, which line on the left (A, B, C) matches up with the target line on the right (X).



This is what we call an unambiguous task—there is a fairly easy right answer to the question. If I was to tell you that the right answer was 'A' what would you do?

Imagine if you'd had to give an answer to this task within a group of people. The presence of others would put more pressure on you to make the right decision. Imagine then if you were the last person to give your answer to this task and the other people all said 'A'. What would you do? Would you say 'A' and go along with the group even if that meant giving the wrong answer?

There is a great deal of pressure to go along with the group. This is what psychologists call conformity. A group exerts a great deal of pressure on an individual to go along with a group, even in some cases when we might not agree with what the group is saying. Psychologists would explain this on the basis of what they call 'normative social influence'. We go along with a group because we want to be liked and we want to belong to the group.

It needn't be a group of people that has the power to change our decisions and behaviours. Individuals can also exert power over others, especially if those people hold positions of responsibility. We are all aware of situations where we choose to obey or to not obey other people, such as parents and teachers. You might also have found yourself in situations where you have asked people to do things for you. The interesting question for psychologists is how far people would be willing to go? Would you be willing to go along with someone else's request to hurt another person, for example?

This area of psychology is referred to as obedience and in the above situation we would be talking about being obedient to an unjust authority.

Imagine a situation where you had volunteered for a psychology experiment into 'learning and memory'. You arrive at the testing room and are introduced to an elderly man who will be the 'learner' in the experiment. You will be the 'teacher'. The experimenter then explains that when the learner makes a mistake on the

task, he will need to be punished. The punishment in this case is a very small electric shock of 15 volts. For every subsequent mistake the learner makes you, as the teacher, will then need to increase the shock by 15 volts.

In this particular experiment the experimenter is very keen that you continue with your role as the teacher. To the extent that at one point he says the following to you:

“You have no choice but to continue with this experiment.”

Coupled with the fact that you probably don't want to spoil the experiment, it might not be very easy for you to back down.

## Activity 17



The maximum shock that it was possible to give in this experiment was 450 volts. Assuming that a shock of 250 volts can be fatal, indicate on the level below the point at which you would stop issuing the shocks to the learner.

0    50    100    150    200    250    300    350    400    450    volts

Explain the experiment to some of your friends and ask them the same question. Your tutor will tell you what happened when this study was carried out and how obedience to unjust authorities could be used to explain a number of inhumane actions.

## Research methods

It is important that you appreciate from the beginning of this course that psychology is a science subject. It has many links with traditional science subjects like chemistry and biology in that it follows scientific methods of enquiry. In fact, we've already seen that part of the course involves looking at the biology involved in the response to stress. As opposed to other science subjects like chemistry, our subject matter is far more complex, as our subject matter talks back. Psychologists have therefore had to adapt their scientific methods accordingly.

You will need to be familiar with the scientific methods that psychologists use when undertaking their research. You have already been doing some psychological research yourself with the activities in this unit. Asking participants for their opinions and getting them to complete certain tasks are part of what some psychologists would do in order to generate results. We can then use these results to support our predictions about behaviour.

## Activity 18



### Key terms

Please look at the following terms and write down in the space provided what each of the terms mean.

Cognition:

Anterograde amnesia:

Retrograde amnesia:

STM:

LTM:

Nature:

Nurture:

Ambiguous:

Unambiguous:

Perception:

Eustress:

IQ:

Social norms:

Culture:

Normative Social Influence:



# Module 1 Memory

## Unit 1 The Nature of Memory

### Specification requirements:

#### Models of Memory

- The multi-store model, including concepts of encoding, capacity and duration. Strengths and weaknesses of the model
- The working memory model including its strengths and weaknesses

#### Memory in everyday life

- Eyewitness testimony (EWT) and factors affecting the accuracy of EWT, including anxiety, age of witness
- Misleading information and the use of the cognitive interview
- Strategies for memory improvement

#### On completion of this unit, you should:

- Be able to distinguish between STM and LTM in terms of capacity, duration and encoding
- Evaluate research into capacity, duration and encoding

#### Key Terms

- |                           |                    |
|---------------------------|--------------------|
| ■ Research methods        | Ethical Issues     |
| ■ Laboratory experiment   | Deception          |
| ■ Natural experiment      | Debriefing         |
| ■ Case study              | Withdrawal         |
| ■ Short term memory (STM) | Consent            |
| ■ Long term memory (LTM)  | Harm               |
| ■ Ecological validity     | Capacity           |
| ■ Participant             | Duration           |
| ■ Encoding                | Natural experiment |

## How have psychologists studied memory?

In this unit you will be introduced to the topic of memory. To understand how psychologists have come to understand memory you will also be introduced to the techniques that they have used to investigate memory. These techniques are referred to as **research methods**. In this unit you will learn about three types of research method – **laboratory experiments**, **natural experiments** and **case studies**. We will firstly look at the type of experiment that features most often when studying memory – the laboratory experiment.

### Research Method – The Laboratory Experiment

The following study is an example of a research study that uses a particular method to investigate memory. The method that researchers used was a laboratory experiment. The experiment suggests that memory can be divided into two distinct types – **Short Term Memory (STM)** and **Long Term Memory (LTM)**. The study was undertaken by two researchers Murray Glanzer and Anita Cunitz in 1966. Whilst testing people on memory recall they noted an interesting effect that seemed to occur in most of the people that they tested.

'**Primacy/recency effect**' (Glanzer and Cunitz, 1966)

#### Activity 1

Look at page 9 of your course textbook McGinley, R; Willerton, J; Wilson, J; Bailey, J AQA AS Psychology A Student's book (Nelson Thornes, 2008) ISBN 978-0-7487-9823-0, hereafter referred to as McGinley et al.

- 1 Briefly outline the procedures and findings of this experiment.

Procedures:

Findings:

What does this laboratory experiment suggest about STM and LTM?

We will now have a look at a different type of method referred to as a case study.

# Research Method – Case Study

'HM' and 'KF'

## Activity 2

Read McGinley et al. pp. 9-10

1 Briefly outline the cases of:

■ HM:

■ KF:

What do the above case studies suggest about STM and LTM?

So far you have looked at two different types of research methods that both suggest that memory can be divided into two distinct types – STM and LTM. The reason why psychologists use different types of methods is because certain types of method are more appropriate than others depending on what area of psychology they are investigating.

Whichever type of method psychologists use there are a number of advantages and disadvantages associated with each type of method.

## Methodology

Look at the 'primacy/recency' study in Activity 1. The study was conducted in a laboratory. A laboratory experiment has a number of good points – strengths ('+' positives) and also bad points – weaknesses ('-' negatives). One strength of a laboratory experiment is that the setting can be highly controlled by the experimenter. The first part of this activity has been completed for you. Attempt to add another strength and two further weaknesses. In each case make some suggestions as to why the points you make are a strength or a weakness.

## Activity 3

Read McGinley et al. pp. 8 and 9

Laboratory experiment:

(+) Strength 1: The setting can be highly controlled

Suggest why the point you made above is a strength of this method.

Outside influences are highly unlikely to have affected the levels of recall recorded.

(+) Strength 2:

Suggest why the point you made above is a strength of this method.

(–) Weakness 1:

Suggest why the point you made above is a weakness of this method.

(–) Weakness 2:

Suggest why the point you made above is a weakness of this method.

Can you list any additional strengths and weaknesses of this laboratory experiment? Put a (+) next to any strengths and a (–) next to any weaknesses.



One of the key weaknesses of a laboratory experiment is that the methods and setting are often not very realistic. In addition, the types of tasks that people are asked to perform are not encountered very often. The methods, settings and tasks therefore are often not very realistic and do not resemble the methods, settings and tasks we encounter everyday.

Psychologists use the term **ecological validity** to describe the realism of the methods, task or setting. The following is a definition of ecological validity.

**Ecological validity** – the extent to which the methods, materials, and setting of the experiment approximate the real-life situation being studied. (*McGinley et al. p. 49*)

Most laboratory experiments therefore have low or poor ecological validity. Try to remember this term and apply it when referring to the realism of research studies.

# Activity 4

Look at the case studies in Activity 2. Both of these studies focus on individuals. Case studies also have a number of strengths and weaknesses.

List two strengths and two weaknesses of this type of method.

Case study

(+) Strength 1:

Suggest why the point you made above is an advantage or strength of this method.

(+) Strength 2:

Suggest why the point you made above is an advantage or strength of this method.

(-) Weakness 1:

Suggest why the point you made above is a disadvantage or weakness of this method.

(-) Weakness 2:

Suggest why the point you made above is a disadvantage or weakness of this method.

Can you list any additional strengths and weaknesses of case studies? Put a (+) next to any strengths and a (–) next to any weaknesses.

## Ethical Issues

When conducting research on people, psychologists need to respect the dignity and rights of the people taking part. Psychologists refer to people who take part in research as **participants**.

The following is a definition of ethical issues:

**Ethical issues** – these occur when there is a dilemma between what the researcher wants to do in order to conduct the research and the rights and dignity of the participant. (McGinley et al. p. 101)

In addition to the methodology of research studies you also need to consider whether the research that has been carried out has used good or poor ethical practices. In order to do this you need to be aware of a number of ethical issues.

The following are a list of ethical issues that crop up most often in research undertaken by psychologists, **Deception**, **Debriefing**, **Withdrawal from investigation**, **Confidentiality**, **Consent** and **Harm** – you could use the following phrase to help you remember these – **Don't Despair When Combing Cold Hair**.

**Deception:** *Information must not be withheld from participants, nor should they be misled, if they are likely to object when debriefed at the end of the procedure. Alternatives to deception should always be considered.*

**Debriefing:** *Following an investigation, participants should be fully informed about the nature of the research. The participants' experiences of the research should also be discussed. Debriefing following an investigation does not justify the use of an unethical procedure.*

**Withdrawal:** *Participants have the right to withdraw at any time, regardless of whether or not they were paid for their participation. They should be informed of this prior to commencement of the study. Participants can also withdraw at a later stage, after the study has been conducted. In this case, you are required to destroy any data or information collected from those who have elected to withdraw.*

**Confidentiality:** *Participants have the right to confidentiality. If confidentiality cannot be assured, then this must be disclosed to participants before they consent to participate in the research. The Data Protection Act requires you to maintain the confidentiality of those people about whom you have collected information.*

**Consent:** *When someone consents to participate in research, their consent must be informed, i.e. the aims of the research should be made clear. In addition, anything that may influence their willingness to participate must be disclosed. When the research involves children under the age of 16 years, then consent must be obtained from parents or guardians of the child.*

**Harm:** *Psychologists have a responsibility for protecting their participants from physical or mental harm, including undue stress. The risk of harm to a participant must not be greater than that to which they are exposed in everyday life.*

(McGinley et al. p. 100)

Good ethical practice within research is recognised as positive and as such it is regarded as a strength of a piece of research, whereas poor ethical practice is regarded as a weakness.

# Activity 5

Why do you think ethics are regarded as strengths and weaknesses of research?

What do you think represents good ethical practice in research studies?

What do you think represents poor ethical practice in research studies?

Confidentiality is a useful ethical issue. In nearly all psychology studies the investigators take great care to protect the identity of the people about whom they have collected information.

# Activity 6

Read McGinley et al. p. 9

- 1 Which of the ethical issues listed above would apply to the 'primacy/recency effect' experiment that you outlined in Activity 1? The issue of confidentiality has been completed for you.

**Confidentiality:** The identities of the participants who took part in this study were protected.

**Consent:**

**Debriefing:**



Your textbook does not detail what ethical issues were considered for the case studies of 'HM' and 'KF' that you outlined in Activity 2. Given that both of these studies are case studies that focus on individuals who have suffered brain damage it is clear that the researchers will have to have considered a number of ethical issues.

**Activity  
7**



Explain why each of the following ethical issues would need to be considered when undertaking a case study into an individual who has suffered brain damage.

**Confidentiality:** The identity of the participants who took part in these studies were protected by referring to them by initials rather than by name, e.g. 'KF' and 'HM'.

**Withdrawal:**

**Consent:**

**Harm:**

**Debriefing:**



## The Nature of Memory

On the basis of laboratory experiments such as the 'primacy/recency effect' and case studies of 'HM' and 'KF', psychologists have been able to establish that memory can be divided into STM and LTM. They have continued to look in more detail at the ways in which they can be distinguished.

They typically distinguish STM and LTM by looking at the following differences: how much information each of these memory stores can hold – **capacity**; how long the information can be retained for – **duration**; and how it is stored – **encoding**.

### The Capacity of Short-Term Memory (STM) – how much information can be remembered?

Lots of research has been done on the capacity of STM; we will now examine some of that evidence.

'7 +/- 2 items' (Jacobs, 1887; Miller, 1956)



*Read McGinley et al. p. 11*

Outline the findings from Jacobs' and Miller's research.

Jacobs:

Miller:

What do these studies suggest about the capacity of STM?

---

## The Duration of STM and LTM

The duration of LTM can last a lifetime, whereas the duration of STM is limited. Much research has been done on the duration of memory; below we will examine some of that evidence.

### The Duration of STM – how long does information last in STM?

To truly test the duration of STM – rehearsal needs to be prevented. Peterson and Peterson (1959) tested the duration of STM by preventing rehearsal through a distraction task.

'Trigrams' (Peterson & Peterson, 1959)

## Activity 9

---

*Read McGinley et al. p. 13*

Outline their experiment using the following headings.

Aims:

Procedures:

Findings:

Conclusions:

---

## Methodology and Ethics

### Activity 10

---

What type of method was used in the 'trigrams' study?

Give two strengths of this type of method.

(+) Strength 1

Explain why this is a strength.

(+) Strength 2

Explain why this is a strength.

Give two weakness of this type of method.

(-) Weakness 1

Explain why this is a weakness.

(-) Weakness 2

Explain why this is a weakness.

Can you list any additional strengths and weaknesses of this method? Put a (+) next to any strengths and a (-) next to any weaknesses.

Outline any ethical issues related to this study.



## The Duration of LTM – how long does information last in LTM

You'll notice that the next study tells you that the researcher is 'Bahrick' and is then followed by the phrase '*et al.*'. The study was undertaken by three researchers Bahrick, H.P; Bahrick, P.O. and Wittinger, R.P. Rather than write out all the names of the researchers involved in this study sometimes you will see one researcher's name followed by '*et al.*'. '*Et al.*' translates as, 'and others' and it is used as a shortcut way of referring to studies where there have been three or more researchers.

'High School Yearbooks' (Bahrick *et al.*, 1975)

### Activity 11

Bahrick *et al.*, (1975) tested long term memory by using high school year books. Using the following headings outline the procedures and findings of this study below.

Procedures:

Findings:

After 34 years:

After 47 years:



## Methodology and Ethics

The method that Bahrck *et al.* used in their study is slightly different to the methods that you have seen so far. The study is a **natural experiment**. There are two main differences between a natural experiment and a laboratory experiment. We shall focus on one of these differences in the next activity. The other difference will be explained in Research Methods Unit 1.2.

### Activity 12

Read McGinley *et al.* p. 14. Read the Hint box on the left hand side of the page to help you answer the following questions.

Outline one way in which a natural experiment is different to a laboratory experiment.

Give two strengths of a natural experiment.

(+) Strength 1

Explain why this is a strength.

(+) Strength 2

Explain why this is a strength.

Give two weaknesses of a natural experiment.

(–) Weakness 1

Explain why this is a weakness.

(–) Weakness 2

Explain why this is a weakness.

Can you list any additional strengths and weaknesses of this method? Put a (+) next to any strengths and a (–) next to any weaknesses.

Outline any ethical issues related to this study.



## Encoding – how is information stored in memory?

### Activity 13



*Read McGinley et al. p. 15.*

1 What are the three main types of encoding in memory and can you give an example of each?

A:

B:

C:

---

## Encoding in STM and LTM

The following study can be used as an example of the way in which information can be stored in both STM and LTM.

'Acoustic/Semantic' (Baddeley, 1966)

### Activity 14

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*Read McGinley et al. pp. 16 – 17.*

Baddeley (1966) investigated encoding in LTM but this study also tells us about encoding in STM. Using the following headings outline the procedures and findings of this study.

#### Procedure

Set A

Set B

Set C

Set D

To test STM encoding:

To test LTM encoding:

#### Findings

STM encoding:

LTM encoding:

What does this study tell us about encoding in STM and LTM?

The following activities have been included in order for you to see the way in which different studies often share very similar types of methodological and ethical criticisms.

## Activity 15

Identify which of the following studies are laboratory experiments, natural experiments or case studies. Write LE, NE or CS next to each of the following studies.

- 'Primacy/Recency Effect'
- 'HM' & 'KF'
- 'Trigrams'
- 'High School Yearbooks'
- 'Acoustic/Semantic'

## Activity 16

Here is a list of methodological criticisms. Which ones apply to laboratory experiments, natural experiments and case studies? Write LE, NE or CS next to each of the following criticisms.

- High level of control
- Can be replicated easily
- Artificial task – lacks ecological validity
- Artificial setting – lacks ecological validity
- Provides rich, meaningful data
- High levels of realism – good ecological validity
- Difficult to replicate
- Difficult to generalise the results
- Low level of control
- Useful when other methods would be unethical or otherwise impossible

## Activity 17

Using the following list of ethical issues identify which ethical issues apply to the studies listed below: deception, debriefing, withdrawal, confidentiality, consent and harm.

- 'Primacy/Recency Effect' (*McGinley et al. p. 9*)
- 'HM' & 'KF' (*McGinley et al. p. 10*)
- 'Trigrams' (*McGinley et al. p. 14*)

## Activity 18

Read the chapter summary in your textbook – if any of this summary seems unfamiliar then read through the chapter and your notes again.

Go back to the learning outcomes at the beginning – can you do each of these things now?

Your tutor will review these with you in the next tutorial.

## Activity 19

Log on to Kerboodle and complete the following activity related to this unit.

**Interactive activity, including video:** The case study of Clive Wearing

## Activity 20

Complete this summary table of the differences between STM and LTM.

	Capacity	Duration	Encoding
STM			
LTM			

# Module 1 Memory

## Unit 2 Models of Memory

### **Specification requirements:**

#### **Models of Memory**

- The multi-store including concepts of encoding, capacity and duration
- Strengths and weaknesses of the model
- The working memory model including its strengths and weaknesses

#### **Memory in everyday life**

- EWT and factors affecting the account of EWT, including anxiety, age of witness, the effects of misleading information and the use of the cognitive interview
- Memory improvement, including the role of organisation

#### **On completion of this unit, you should:**

- Describe the multi store model
- Evaluate the multi-store model using research evidence
- Apply the multi-store model to everyday memory usage
- Describe the working memory model
- Evaluate the working memory model using research evidence
- Apply the working memory model to everyday memory usage

#### **Key Terms**

- Model
- Theory
- Outline
- Evaluate
- Multi-store model
- Sensory memory
- Working memory model
- Phonological loop
- Visuo-spatial sketchpad
- Central executive

## Models and Theories

So far you have been introduced to a number of research studies that used a number of different types of methods. In addition to research studies you will also need to be aware of **models** and **theories**.

A **model** is a simplified description (representation) of a system that is intended to assist in predicting behaviour.

A **theory** is an explanation of a set of findings.

The key difference is that one is a description, the other is an explanation. In this unit you are introduced to two different models of memory. In the next topic – Developmental Psychology – you will be introduced to a theory.

In your examination you could be asked to describe a theory or model. The term used in the examination is **outline**. This could be a six mark type question whereby you would need to provide at least six descriptive points relating to the theory or model you are required to outline. Although you should aim to write a number of points you should try to avoid listing the points in the form of bullet points. You should always attempt to put the points together as one continuous piece of writing.

## The Multi-Store Model of Memory (Atkinson and Shiffrin, 1968)

### Activity 1

Look at the diagram on p. 5 of McGinley et al.

Close the textbook and see if you can add the lines and words to the boxes below.

Figure 1

Two of the stores in the multi-store model STM and LTM should now be familiar to you. **Sensory memory** is an additional part of the model. Turn to page 4 of your textbook and read about the sensory memory store.

## Sensory Memory

### Activity 2

Read McGinley et al. p. 4

Sensory memory holds information for approximately how long?

Identify and explain the three different stores that Atkinson and Shiffrin (1968) proposed for the sensory memory store.



The two main functions of the store are to provide us with a stream of continuous information and also to sort through the huge amounts of incoming information to avoid the system becoming overloaded.

### Outline the Multi-Store Model

**Activity  
3**



Using the diagram that you copied from the textbook, outline the multi-store model of memory. Remember to outline each of the stores and the way in which information travels between each of the stores. You should attempt to make at least six descriptive points, but avoid bullet-pointing your description.



In addition to outlining a theory or model you also need to be able to **evaluate** the theory or model. Evaluation is a skill that you will need to develop as the course progresses. Don't worry if it doesn't come easy to you at first – plenty of practice will help. You have already done some evaluating in the previous unit. The activities in the previous unit that asked you to consider the strengths and weaknesses of different research methods is one way in which you can evaluate.

## Evaluation - What is evaluation?

In unit 1.1 you were asked to consider the methodology and the ethics of the research studies you encountered. Methodology and ethics are two ways in which you gain evaluation marks. Evaluation is something you do regularly without thinking about it. If you think about the process you might go through before choosing to buy something new – more often than not this involves some degree of evaluation before you decide to buy the item. Let's take a mobile phone for example. If you wanted to buy a new mobile phone what would you say about your current phone?

### Activity 4

Evaluate your mobile phone.

What are the good things that you would like to keep if you were to buy another phone?

What are the things that you don't like and would change if you were to buy another phone?

In relation to the evaluation points of your mobile phone you can see that these points are both good and bad. Your phone probably has a number of advantages and disadvantages.

This is the important thing to remember about evaluation – it is not all bad. To be critical of something you can provide both positive and negative points – and the same applies to psychological evaluation.

You have now evaluated your mobile phone. When it comes to evaluating psychological research, theories and models there are six main ways in which to do this.

**The six steps to effective evaluation** – You might want to use the following mnemonic to help you remember these – **So What Makes Evaluation Always So Difficult Anyway 'SWMEASDA'**

- 1 (+) **Strengths** - Find some strengths of the study/theory/model – these are represented as (+)'s

Strengths of a study/theory/model could be things such as: the model has contributed to further understanding of this area of psychology.

- (-) **Weaknesses** - Find any weakness of the study/theory/model – these are represented as (-)'s

Weaknesses of a study/theory/model could be things such as: the model is too simplistic.

- 2 (+) and (-) **Methodology**

The methods that psychologists use to undertake their research can also be criticised. Very often the chosen method has at least one positive (+) and one negative (-) evaluative point.

A methodological strength of laboratory experiments would be that it is easier to control the setting. A methodological weakness would be that the setting is not very realistic.

### 3 (+) and (–) **Ethical Issues**

Ethical issues can also be both positive and negative. In some cases psychologists demonstrate very good, but also sometimes quite poor, ethical practices.

Good ethical practice would be ensuring that participants were fully informed before the study takes place. Poor ethical practice would be to deceive the participant and not debrief them after the study has ended.

### 4 **Alternative explanations**

This is probably the most difficult type of evaluation. It will be described in greater detail towards the end of this unit.

### 5 (+) **Supporting studies** – Use studies that provide support for the study/theory/model

Why do you think supporting studies are regarded as a positive (+) evaluation point?

(–) **Disputing studies** – Use studies that challenge the study/theory/model

Why do you think disputing studies are regarded as a negative (–) evaluation point?

### 6 (+) **Applications** – refers to the practical application of research to wider society or further research in the area. Psychological research tells us a great deal about people, but it doesn't always have any direct practical benefit. For example, the 'primacy/recency' study at the beginning of unit 1.1 has no direct benefit to you. Some research does have direct practical benefit and this can be seen more clearly when you come to look at the third unit (1.3) on eyewitness testimony. Psychological research on eyewitness testimony has changed the way in which police now conduct interviews with people following a crime.

### **So What Makes Evaluation Always So Difficult Anyway?**

In answer to the question – evaluation shouldn't be difficult at all as long as you remember how to do it! See if you can remember each of the different ways to evaluate and write them in next to the letters below.

S –

W –

M –

E –

A –

S –

D –

A –

## Evaluating the multi-store model of memory

### Strengths and Weaknesses of the multi-store model

#### Activity 5

Read McGinley et al. pp. 17 - 18

Make notes on each of the following points of evaluation.

Strengths:

(+) Important contribution to memory research

Weaknesses:

(-) It is oversimplified

(-) The nature of information is ignored

(-) The role of rehearsal has been questioned

(–) The one way flow of information from STM to LTM has been questioned



## Supporting/Disputing studies

### Activity 6



Four studies that support the multi-store model are listed below. Explain in what way these studies provide support for the model.

Study 1: 'trigrams' (Peterson and Peterson, 1959)

In what way does this study support the multi-store model?

Study 2: '7 +/-2' (Miller & Jacobs)

In what way does this study support the multi-store model?

Study 3: 'High school yearbooks' (Bahrick *et al.*, 1975)

In what way does this study support the multi-store model?

Study 4: 'acoustic/semantic' (Baddeley, 1966)

In what way does this study support the multi-store model?



## Methodology and Ethics

In addition to strengths and weaknesses and supporting and disputing studies you could gain additional evaluation credit by referring to the methodology and ethics of the above studies. Briefly summarise the methodological and ethical issues below.

### Activity 7



Methodological issues:

Ethical issues:



## Application questions

In your exam you will be expected to be able to apply your knowledge of psychological theories, models and ideas to:

- designing research to test psychological theories and models
- explaining results of studies in terms of psychological theory and concepts
- analysing and evaluating explanations of psychological processes
- generating explanations of unfamiliar situations.

An example of this could be that you are presented with a scenario about a person who needed to improve his/her memory, and then be required to apply your knowledge of theories of memory to suggest appropriate improvement strategies.

The following question is from the AQA January 2010 examination. In this example the answer has been provided for you.

A case study was carried out on Peter whose brain was damaged in a motorcycle accident. Psychologists tested how many numbers he could hold in his short-term memory. They did this by reading him lists of numbers and asking him to recall the numbers immediately in the right order. He could recall a maximum of two items. The psychologist found that his long-term memory was normal.

- (a) How was Peter's short-term memory after the accident different from most adults' short term memory? (2 marks)

Digit span for STM is normally considered to be  $7 \pm 2$  items, so Peter's digit span was much shorter. Peter's digit span of two items was much shorter than the average span of around 7 items.

- (b) Does this case study support the multi-store model of memory? Explain your answer. (4 marks)

The MSM suggests there are separate STM and LTM stores. Peter's short-term memory was impaired, but his long-term memory was not. This supports the idea of separate STM and LTM stores, because one was damaged but not the other. The damage Peter suffered in his accident bears similarities to a case study of KF. Following a motorcycle accident his LTM remained intact but his STM was affected so that he was only able to recall one item. Another case study of HM who underwent surgery for severe epilepsy demonstrated the reverse effect whereby his STM remained intact but his LTM was defective. The case studies of Peter, KF and HM all point towards the distinctions between two separate memory stores as suggested by the multi-store model.

- (c) Identify one ethical issue associated with this case study of Peter. Suggest how psychologists could deal with this ethical issue. (4 marks)

All participants in psychological research have the right to confidentiality. If Peter's details could not be protected then this should be disclosed to him before he consents to participate in the research. Given the nature of Peter's injuries, however it is unclear whether he would be able to provide informed consent. In this case it is important that Peter's details remain private. The psychologists should not use Peter's name but could use his initials instead, like the case studies of KF and HM.

Having seen how an applied question could be answered look at the following exam style question and attempt to answer it. It is important to refer to Tom's experience when answering the question.



## The Working Memory Model (Baddeley and Hitch, 1974)

### Activity 9

Look at the diagram on p. 20 of McGinley et al.

Close the textbook and see if you can identify the three components of the model.

### Activity 10

Read McGinley et al. pp. 19-20.

Outline the key components of the working memory model.

## Strengths and Weaknesses of the Working Memory Model

### Activity 11

Read McGinley et al. pp. 23-24.

Make notes on each of these points of evaluation.

(+) This is a better model than the multi-store model

(+) It attempts to explain how memory functions

(+) It can account for individual differences in memory processing

(-) It does not offer a complete understanding of how memory works

(-) It only focuses on STM

## Supporting/Disputing studies

### Activity 12

Read McGinley et al. p. 21.

- 1 Supporting study for the phonological loop – the ‘word length effect’ (Baddeley et al., 1975)

Procedures:

Findings:

In what way does this study support the WMM?

- 2 Supporting study for the visuo-spatial sketchpad – the ‘folding cube’ (Shepard & Feng, 1972)

Read McGinley et al. pp. 21–22.

Procedures:

Findings:

In what way does this study support the WMM?

- 3 Further support for the visuo-spatial sketchpad – the ‘tracking and letter orientation task’ (Baddeley *et al.*, 1973).

*Read McGinley et al. p. 22.*

Procedures:

Findings:

In what way does this study support the WMM?

4. Supporting study for the central executive – the 'A1, B2, C3 task' (Baddeley, 1996).

*Read McGinley et al. p. 23.*

Procedures:

Findings:

Why does this study support the WMM?

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## Methodology and Ethics

In addition to strengths and weaknesses and supporting and disputing studies you could gain additional evaluation credit by referring to the methodology and ethics of the above studies. Briefly summarise the methodological and ethical issues below.

### Activity 13

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Methodological issues:

Ethical issues:

## Practical Application

### Activity 14

Read McGinley et al. p. 24.

In what way has the working memory model been applied to a real life setting?

## Alternative Explanations

One of the ways in which you can evaluate is to refer to alternative explanations. You might want to start to think about alternative explanations on the basis of the two models of memory that you've looked at in this unit.

**Consider the following question: Describe and evaluate the multi-store model of memory.**

We have already mentioned five other ways in which you can evaluate this model, but there is one final way. As you have seen in this unit, both the MSM and WMM have a number of strengths and limitations. Sometimes what is an advantage for one model is a disadvantage for the other model.

When answering the above question about the multi-store model you can ask yourself two additional questions about the working memory model. These questions have been answered for you below.

In what way is the working memory model a better model than the multi-store model?

***An additional model of memory was developed which attempted to deal with some of the weaknesses of the multi-store model. Whereas the MSM explains the way in which we might attempt to remember things such as a list of words or numbers this only explains one aspect of the way in which we use memory. It doesn't explain the way in which we use our memory when working on a task or problem like the WMM does. In addition, the MSM focuses on verbal memory, e.g. the rehearsal of information, but it doesn't consider the impact of visual information like WMM does.***

In what way is the working memory model a less effective model than the multi-store model?

***The problem with WMM is that it only relates to STM and doesn't take account of LTM like the MSM does. STM is influenced very much by LTM so focussing exclusively on one store means that the model is limited and can be criticised for ignoring the role that LTM plays when attempting to explain the way in which people work on problems or solve tasks. Each of the three memory stores that make up the MSM have been extensively researched and each of the stores are regarded as a very reliable way of thinking about the way information is processed and recalled. Whilst the evidence for the phonological loop and visuo-spatial sketchpad seem very plausible and valid, research has not yet sufficiently clarified the role of the central executive. This component of the model is still quite vague.***

In effect the answer to both of the above questions is evaluating the MSM by considering the strengths and limitations of the other model – this is what we would refer to as alternative explanation evaluation. Don't worry too much about this at the moment as in many cases there will be plenty of evaluation points to make elsewhere without having to consider alternative explanations. However, if you were struggling to remember an evaluative point it is always worth thinking about whether there is

an alternative explanation. The useful thing about this type of evaluation, particularly a question that asks about theories or models, is that you can change it around quite easily depending on which theory or model appears in the question.

## Activity 15

Answer the following question. Describe and evaluate the working memory model.

In what way is the multi-store model a better model than the working memory model?

In what way is the multi-store model a less effective model than the working memory model?

## Applying the Working Memory Model to everyday usage

## Activity 16

Complete the following question. There are 6 marks for this question and it is important that you refer to the working memory model in your answer.

*A brain scan shows that one area of the brain is more active when a person is doing a verbal task. However, when this person is doing a visual task, a different area of the brain is more active.*



4. There were flaws in the methodology such as .....
5. An important ethical consideration is .....
6. Further support comes from.....
7. Another psychologist disagreed, saying that.....
8. This has important implications in .....
9. One consequence of this study is.....
10. The advantage of this study is .....
11. One limitation of this study is .....
12. An alternative explanation could be .....
13. Not everyone reacts the same way .....
14. This has been applied to .....
15. There will be cultural variations.....
16. The study lacked ecological validity because .....

## Activity 17

*Read the chapter summary in your textbook – if any of this summary seems unfamiliar then read through the chapter and your notes again.*

Go back to the learning outcomes at the beginning – can you do each of these things now?

Your tutor will review these with you in the next tutorial.

## Activity 18

**Log on to Kerboodle and complete the following activity related to this unit.**

**Interactive activity:** The multi-store model of memory (Atkinson and Shiffrin, 1968, 1972)

**Interactive activity:** The multi-store model of memory (Atkinson and Shiffrin, 1968, 1972) – understanding the model components

**Students worksheet:** Taking it further – The multi-store model of memory

**Interactive activity:** The working memory model (Baddeley and Hitch, 1974) – knowing the model

**Student worksheet:** Taking it further – The working memory model

**Podcast:** Cognitive psychology – memory audio 1

**Try to answer the following questions.**

**AQA Exam Paper questions**

**January 2009**

The multi-store model of memory has been criticised in many ways. The following example illustrates a positive criticism.

Some students read through their revision notes lots of times before examinations, but still find it difficult to remember the information. However, the same students can remember the information in a celebrity magazine, even though they read it only once.

Explain why this can be used as a criticism of the multi-store model. (4 marks)

### May 2009

A brain scan shows that one area of the brain is more active when a person is doing a verbal task. However, when this person is doing a visual task, a different area of the brain is more active.

- (a) How this could relate to the working memory model. Refer to different parts of the working memory model in your answer. (4 marks)

### January 2010

A case study was carried out on Peter whose brain was damaged in a motorcycle accident. Psychologists tested how many numbers he could hold in his short-term memory. They did this by reading him lists of numbers and asking him to recall the numbers immediately in the right order. He could recall a maximum of two items. The psychologist found that his long-term memory was normal.

- (a) How was Peter's short-term memory after the accident different from most adults' short term memory? (2 marks)
- (b) Does this case study support the multi-store model of memory? Explain your answer. (4 marks)
- (c) Identify one ethical issue associated with this case study of Peter. Suggest how psychologists could deal with this ethical issue. (4 marks)

### AS Textbook questions

#### McGinley *et al.* p. 18

Peter was trying to remember the names of his first teacher at primary school without success. Then his mother managed to find an old school class photo, which she showed to Peter. The name of his teacher then popped into his mind.

Explain why Peter was suddenly able to remember.

#### McGinley *et al.* p. 24

Students claim that they can take in programmes on TV and do homework at the same time. Using the working memory model, explain why this is not really possible.