ReMiND

Rehabilitation of Memory in Neurological Disorders

A Cognitive Rehabilitation programme

Facilitator's Manual

by Roshan Das Nair and Nadina Lincoln, 2019

Facilitators Page: Information about the programme

WELCOME!

Welcome to the **CRAMMS** facilitators manual. This manual will guide you through everything you need to know in order to facilitate the cognitive rehabilitation programme for your group.

How to use this manual:

- Throughout this manual there are notes to help you run the programme. These are written in blue and highlighted in a bubble. These notes are for you as a facilitator and are not shown in the participant workbook, for example they may suggest what to say at this point or direct you to a handout. Before you run each session, prepare by reading through the session in the manual and making sure you understand and remember what you are required to do throughout the session.
- The blue numbers along the right margin will tell you approximately how long to spend on each section.
- At the bottom of each page in your manual there are two page numbers. The main page number is the page of your manual, and the number in brackets is the corresponding page number for the activity in the patient workbook. This will help you direct your group to the page you need them to look at.

The following tips will provide you with important information on how to run the programme.

Before you begin/setting up:

- Make sure your venue is appropriate for your groups' needs. People may require a ground floor room and accessible toilets. Ensure the space is quiet and not too hot or cold. Find out the fire evacuation procedure and if the fire alarms will be tested whilst you are there.
- Due to the length of the sessions refreshments should be provided in the break, so make sure water, drinks and biscuits are available at the venue.
- As people with cognitive problems may forget to attend, send a reminder text or phone call either the day before or morning of the group.
- The style of this group is an informal <u>guided discussion</u>. Keep your groups' topic of conversation related to the current activity as much as possible, but allow them time to discuss around the topic, guiding it back if needed. Try to keep a balance in between staying on topic, but also allowing some social chat to let the group to bond and feel relaxed.
- Your group may vary in terms their level of cognitive problems and physical disabilities. This can cause problems with the atmosphere, have a negative effect on group members' mood and cause them to stop attending. You will need to address this by making it very clear at the start of the programme that you are all here because everyone has cognitive problems and we are going to try the strategies together. At no point will anyone be compared against each other. If a problem emerges, stress this again either to the whole group or to the individual(s) affected.
- Regularly encourage group members to write notes in their workbooks, if they are able. If you have someone who has problems writing in your group, help them write during the activities and ask them to let you know if there is any important notes they would like help to write during the session.

During every group:

The structure of the sessions are very important. Your group will follow the same structure each week:

- Recap: With the exception of session 1, you will do a quick recap of content covered in the previous session, lasting 5 minutes
- **Introduction:** Introduce the topic that will be covered today and activities to be done
- Break: A break of 15 minutes should be given half way through the session. Judge each week how your group are doing, if they are tired allow the break earlier, but if they are very keen to carry on then leave the break later or shorten it. This is a good time to offer drinks and refreshments to the group. If possible, it is better to go into a different room during the break and allow the group members to bond and have discussions without the influence of a professional
- **Take home activity:** Every session includes at least one take-home activity at the end. Leave enough time the end of the session to go through these and answer questions without rushing.



Facilitators Page: Introduction and background

This manual provides the information needed to run cognitive rehabilitation groups for people with memory problems. It was developed as part of a programme of research on cognitive rehabilitation for people with neurological disabilities. The initial version of the manual was developed for the REMIND (rehabilitation of memory in people with neurological disorder) trial (Das Nair and Lincoln 2012). In this trial, training in restitution strategies was compared with training in compensation strategies and an attention placebo control group. Those who received training in restitution and compensation strategies used significantly more internal memory aids than those in the self-help control group. The qualitative feedback (Das Nair & Lincoln 2013) indicated that some participants found the training to be useful and better able to deal with memory problems in daily life.

The manual was then revised by combing restitution and compensatory strategies into one intervention, as this reflects the way cognitive rehabilitation is delivered in clinical practice. This was evaluated in a trial (REMIND-MS) comparing the combined intervention with a usual care control group for people with multiple sclerosis (Carr et al. 2014). People with MS who received the combined cognitive rehabilitation programme had significantly better mood than the control group at 8 months after randomisation and gave positive feedback about the value of the rehabilitation programme.

An evaluation has also been carried out for those with memory problems following traumatic brain injury (Das Nair et al 2018). Although overall the trial showed no statistically significant benefit on the primary outcome measures, the Everyday Memory Questionnaire, those who received the intervention archived of more of their personal goals that those in the usual car control group.

On the basis of these pilot studies, the REMIND-MS cognitive rehabilitation programme was evaluated in a large scale multicentre randomised controlled trial (Lincoln et al.2019) for people with MS. The CRAMMS (cognitive rehabilitation for attention and memory in people with MS) trial showed that people who received this cognitive rehabilitation programme had fewer memory problems in everyday life than those who received usual care. There was also a difference in their mood in favour of the cognitive rehabilitation group. Feedback from interviews with participants in the CRAMMS trial was that participants found the intervention strategies helpful and valued working with other with similar problems in a group setting

This manual provides details of a cognitive rehabilitation programme for problems with attention and memory. It was designed to teach participants strategies to cope with cognitive problems in daily life. The manual provides the background information and materials for running the group programme but to deliver the group requires that the facilitators are appropriately trained.

Welcome/ housekeeping: 10mins

WELCOME!

Welcome to the **CRAMMS** workbook for the cognitive rehabilitation programme you are about to start. This book contains all the information you will need as you progress through the programme.

How to use this workbook:



- There are spaces to write notes about discussions and activities during the groups. Please do write notes, as you will be able to look back through this book after the programme has finished to help you again.
- When you see this symbol, this is a group discussion activity. In the group we will discuss the topic and your experiences around it. Please write some notes so you can remember what we talked about later.
- When you see this symbol on a page it is a take-home activity. This is to help you practice the techniques you learn in the group, while at home.

<u>Tell the group:</u> "These take home activities are not like homework in school, I won't tell them off for not doing it, we understand that life can be busy and get in the way. But, the purpose of having these is so you can practise the strategies at home in between the sessions. This is very important as this is what will make a difference in your everyday lives."

We hope that you will find the programme both informative and interesting and that it will help you to build up your own 'personal toolbox' of techniques for dealing with the attention and memory difficulties you experience.

Housekeeping: Before moving on, run through to following things with your group:

- Location of toilets
- Fire exits / when the fire alarms are tested
- Smoking policy
- Give drinks / let group know where to get them
- Let them know there will be a break

Introductions / ice breaker:
20 mins

The Cognitive Rehabilitation Group:

The Group is weekly on the following dates:

Session	Date	
1		
2	Let the group know	v all of the
3	dates of the sessions	
4	them to write them	here.
5		
6		
7		
8		
9		
10		

Ice breaker -	let's g	gets to	know	the	group	<u> </u>
---------------	---------	---------	------	-----	-------	----------

• The assistant psychologist running the group is:

Write down three facts about the person sitting next to you:



1.....

2.....

3.

Start by introducing yourself.

Split the group into twos and ask them to chat for a few minutes and find out some interesting facts about the other person, then go around the group and let each person introduce the other.

Ask them to write down the groups names as they are introduced.

Allow some time for discussion on MS and symptoms here if it comes up, let them know now is the time to discuss these things as we will focus on memory for the rest of the sessions.

• The other members of the group are:

2. 6.

3. 7.

4. 8.



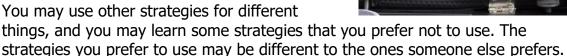
The Rehabilitation Programme

Aims

Unfortunately there are no quick fixes with neurological problems, and the aim of this programme is not to magically fix your problems with attention and memory.

The main aim of this programme is to provide you with a personal "toolbox" of strategies to help you overcome these problems.

Like the tools in a toolbox, you may find some of the strategies very useful in lots of situations. They may become your go-to ways to remember information.



The programme also aims to provide you with:

- An opportunity to <u>reflect</u> on attention and memory difficulties you have been experiencing and how you have coped so far
- An opportunity to <u>share your experience</u> of attention and memory problems with others and learn from each other's experiences
- Greater <u>confidence</u> in effectively dealing with your attention and memory difficulties



Structure

The group sessions will run for ten weeks, with each session lasting an hour and a half.

In each session we will recap the previous session, discuss take-home activities from the previous week, and learn about attention and memory and the strategies you can use to help remember things.

The ten sessions will be:

Session 1: Introduction to the Programme

Meeting others in the group, establishing group rules, exploring attention and memory problems.

Session 2: Memory and Memory Problems

Learning about the processes involved in memory and the memory systems.

Session 3: Attention I

Learning about the importance of attention and different types of memory aids.

Session 4: Attention II

Learning strategies to improve attention.

Session 5: Introducing Internal Memory Aids

Learning internal memory techniques, such as chunking and categorisation.

Session 6: Internal Memory Aids II

Learning more internal strategies, such as deep level processing and visualisation.

Session 7: Internal Memory Aids III

Learning more internal strategies such as "little and often" and the PQRST method.

Session 8: Introduction to External Memory Aids and Diaries

Learning to use diaries effectively.

Session 9: External Memory Aids II

Learning about external strategies, such as mobile phones and notice-boards.

Session 10: Review of the Programme and Fine-tuning

SESSION 1:

Introduction to the Programme



Introductions



Format of this session and the programme

Group rules

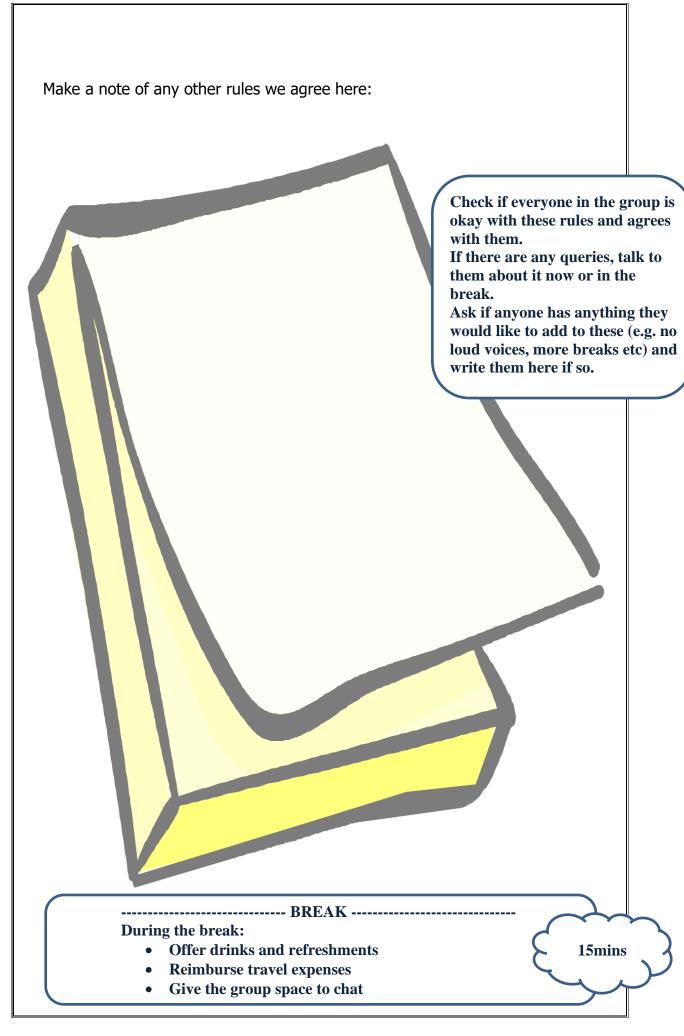
As we will all be working together as a group for the next few weeks, it is important to establish a few ground rules for the sessions. These rules are discussed by the group as a whole so everyone feels comfortable with them, but in general, the following should be agreed:

- Confidentiality: People can discuss what is said in the group, but not who said them. When meeting group members outside of the group, issues relating to the group should not be discussed.
- **Respect:** Respect other people's views, opinions, beliefs, and lifestyles. It is ok to have a difference in opinion.
- Comfortable sharing of information: What is shared, and how much is shared, depends on the person. Questions may be asked, but no one will force the other to respond.
- o **Patience:** Be patient with each other.
- Listening: Make sure everyone is listened to.



- Attendance: Try to let us know if you are going to miss or be late for a group.
- Mobile phones please put them on silent or turn them off as they can be very distracting to the group.





Discussion topics



Discussion 1: 5mins

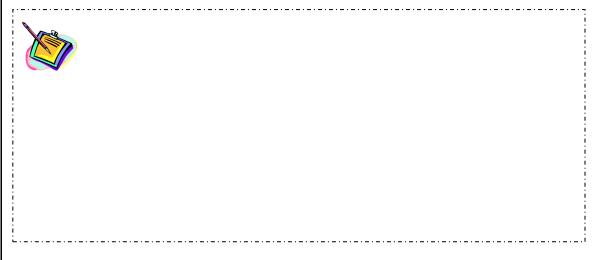
1. Sometimes I forget certain things, such as...

For example:

- remembering faces / names
- recalling conversations (real life, on the telly, etc.)
- following plots in films, plays, books, etc.
- finding the way around familiar places
- Put a tick next to those on the list that are mentioned, and make a note of any other problems discussed below:

Instigate a discussion about problems the group have with their memory, possibly comparing to memory before MS diagnosis.

You could start with an example of something you struggle with yourself and go round the group talking about the main things each person forgets.



> Now list those that are most relevant to you personally:

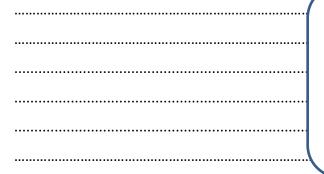
•

"So what are the things that *really* ring a bell for you, that you really struggle with and often forget?"

- •
- •
- •

Discussion 2: 5mins

2.	How do you feel when you are having difficulty with attention a	nd
	memory?	



Highlight again that it is difficult to compare our memory to someone else's. End this discussion on a positive note by letting the group know there are techniques they can learn to help manage these problems better and feel better about their memory.

3. Sharing our own techniques to solve problems

Have you come up with any techniques to reduce these problems or help you cope better?

Discussion 3: 10mins

For example:

- having specific places for specific things
- having a routine
- use of external aids like calendars, diaries
- avoiding distractions when learning something new
- > Again, tick those on the list that are mentioned, and make a note of any others. Put a star next to the techniques you use.



f there any tech	useful; 10 = extreme	e group that you have not used before
		ou, jot them down here:
		/websites with advice that might
e helpful to s	hare with the group?	
		This could include mem resources or general MS information or support.

sion 4:

	5mins
Do you have any questions about the programm leader and note your answer here.	me? Ask your group
	If you are unsure of an answer, right down the persons' question and let
	them know you will find out for them by next week.

Take Home Activity



Explaining take home activity: 5mins

Think about the main memory problems you have and record them in the table below. For each one, state how often it happens (that is: hourly, twice daily, weekly, and so on) and how much you feel it affects you. Score 1 if it does not have a large impact and 5 if it severely affects your life. If you use any techniques to help with the difficulty, put this in the last column.

	Memory problem faced	How often this occurs	How much it affects you: 1=not at all; 5=severely	Techniques used (if any) to deal with it
1	e.g. I forget the names of my colleagues	2-3 times a week	4	Try to avoid using their name
2				
3				
4				
5				

In our final review session we will come back to review how these problems have changed using this table, so please make sure you have enough information in the table to do this.

Use the space below to make a note of ways you could improve any of the strategies you already use, in order to reduce further forgetting. You may also want to record different techniques you want to try, and why you think they may help you.





SESSION 2:

Memory & Memory Problems



Review of session 1



Refresh everyone's names by quickly going round the group reintroducing them. Refresh memory of what we did last week.

Review of session 1: 5mins

Discussion topics

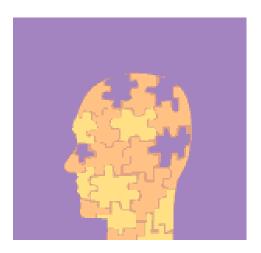
activity?	Ask members of the group if they are happy to talk about their take home activity. Use specific prompts: Was it difficult to do? Did you learn anything? Have you made any plans to do things differently?
What is memore Why is memore	Use more specific questions if needed to prompt the discussion: E.g. What do we use our memory for? What would life be like without memory?

Introduction to memory and memory problems: A Psychologist's perspective

Explaining memory/ memory stages: 20 mins

Memory

- Memory problems are very common and can be the result of many causes, such as ageing, stroke, traumatic injury or other health conditions
- We all experience memory difficulties at different points in our lives but most of us learn to cope with them
- Memory difficulties can vary depending on the nature and degree of the damage to the brain tissue
- This means that memory is not a single thing but is broken up into smaller units that work together to help us remember information
- This also means that there is no single brain area that is solely responsible for memory. Multiple parts of the brain are involved in a complicated memory system



- Therefore, a problem in one or more of these areas can cause us to have memory problems
- People may experience memory problems in different ways, have difficulties remembering different types of information and the severity can vary greatly



Memory is a complex system that depends on many brain functions.

There are five processes involved in memory. These are:

Attention

The ability to focus on certain information that is important and filter out irrelevant information



Encoding

Understanding, making sense of, and organising information in your brain and keeping it there for a short while



Storage

The process of storing the encoded information in the memory storage



Consolidation

Rehearsing information so that it becomes a more stable, solid memory in your long-term memory store



Retrieval

Recalling or recognising material that has been stored.

These processes are linked to each other. I.e. each stage depends on the one before it being done successfully.

Therefore, without adequate attention, the information cannot be encoded properly, which in turn will result in poor storage, which means retrieving the information will be very difficult or impossible.

Memory difficulties can arise if there is a problem in one or more of these processes.

Ask a question to get the group thinking; "So with this in mind, have a think about which stages you think your problems may lie. We're going to go through an example now that might make things clearer"

Memory processes as a filing cabinet

We can help understand these memory processes by imagining the memory system as a filing cabinet system.

Attention:

If you have lots of information to remember, you may write down notes on pieces of paper. You may then sort these notes out into "keep" pile of information that is important right now, and a pile of things to sort through later.



<u>Tell the group:</u> "So this is similar to the way our brain pays attention to information we see as important."

Encoding:

You may then take the paper and decide where to put that information in a folder, grouping it by putting similar information together.

"This is similar to the way information is organised by our brain to make sense of it and organise it ready for storage"

Storage:

You may then keep that information stored in the folder for a while.

"Similarly to the way our memory stores information"

Consolidation

is important enough, you may take and back it up on the computer

which more information and is more secure.

"and similarly, when our brain consolidates memories they become more long term memory traces which you are less likely to forget"

when you need the information again, you will log retrieves inform	the way our brain
backed up the file a long time ago or did not organise the files well it may be more difficult to find.	

Memory Storage

Highlight that we are looking at the <u>storage</u> process of memory now

Memory can be subdivided into separate storage systems depending on where/how it is stored, and the

There are three types of storage systems we know of:

amount of time memories are "alive" in them.

1. Sensory Memory:

Brief, fleeting impressions of sensory information.

Memory storage:

"To demonstrate sensory memory, I want you to shut your eyes for a few seconds and imagine sitting at the beach, you can smell the salty sea air, you can feel the sun on your skin and hear the seagulls. *PAUSE*

Does it feel like you can almost sense them? This is using your sensory memory"

2. Working Memory:

An in-between storage system that provides a space for information to be worked on and processed.

If information in the Working Memory is not rehearsed it may be lost (forgotten), but if it is rehearsed enough it may enter the long-term store.

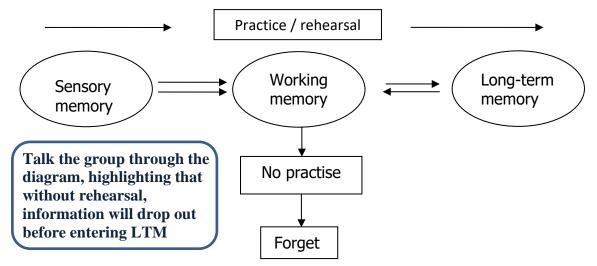
5 to 9 bits of information can usually be held in the Working Memory.

Information can be held for 15-30 seconds in the Working Memory, but rehearsal or other internal memory aids can extend this time.

"As an example, I am going to ask you to do a quick maths problem: $5 + 2 \times 3 - 4$. *PAUSE* So while you were working that out, your brain was using your working memory to store and work on the previous numbers"

3. Long-term Memory:

Information that is stored here remains "inactive" for a long period of time. This information can be accessed and updated at a later time.



For example:

If someone gives you a phone number to call, the number will enter your <u>sensory</u> memory as you hear it.

In order to hold the phone number in your head long enough to write it down or call it, you could repeat it in your head whilst holding it in your <u>working memory</u>. If you want to remember the phone number for later, you could repeat it regularly and it may pass into your <u>long-term memory</u>.

Memory retrieval: 5 mins

Memory Retrieval

We can retrieve memories in two different ways:

- **1.** *Immediate recall:* Recalling information as soon as it is presented (usually within a one minute time span).
- **2. Delayed recall:** Recalling information after some time has lapsed. During this period you may be distracted.

Distracters

Distracters are anything that takes our attention away from something we are trying to focus on or remember. Distracters can be:

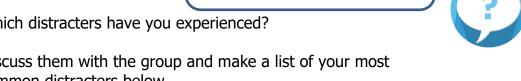
- External: from the outside e.g., noise, other people, etc.
- Internal: from inside ourselves e.g., tiredness, worry, not paying attention, etc.

Let the group know we will come back to this in more detail later, but for now, what are their most common distractors?

Discussion topic: <

Which distracters have you experienced?

Discuss them with the group and make a list of your most common distracters below.





The main purpose of this page is to demonstrate how complex memory is. Read through the diagram slowly.

Memory systems: 10 mins

Memory Systems

There appear to be different memory systems for different types of information.



Verbal memory

Holds words and sentences in store e.g. things people have said.



Visuo-spatial memory

Used to remember visual information such as faces, pictures, maps and routes.



Episodic memory

Involves the storing of personal experiences. Important personal events.



Procedural memory

Remembers how to carry out certain movement-based tasks/skills e.g. typing, tying your shoelaces or driving.



Emotional memory

Helps to add emotional colouring to memories, remembering how you felt at the time.



Gustatory memory

Helps recall the sense of taste.



Olfactory memory

Helps recall the sense of smell, which can bring back strong memories.



Temporal memory

Is used for the timing of events e.g. if something happened last week or last month.

Take home activities:

10 mins

Take Home Activities

Task 1



Looking back at the information about memory on the last few pages, write down which areas of memory you feel you have difficulties with. Try to also think of an example of when this happens. You may have some sections where you write several things and others where you write none.

For example, under memory processes, someone who regularly experiences a 'tip of the tongue' feeling would write that they have problems with retrieval.



ATTENTION

ENCODING





STORAGE

CONSOLIDATION





RETRIEVAL

At this point, check the group understand enough from this session to complete this activity.

Give examples if needed: e.g. if you often find you don't remember things someone tells you whilst you are doing something else, this could be a problem with attention. If you often find you can't quite think of the right word even though you do know it, this is a retrieval issue.

If someone is particularly struggling, ask them to have a go at home and offer to talk it over next week

Task 2



Have a go at remembering the following string of letters. How long does it take you to remember them?

WQNXVT

Time taken:.....

Now try learning the following string of letters in their order **whilst listening to the radio or TV**. How long does it take you to remember them?

EHJSRZ

Time taken:....

What time is it now?.....

Now turn the page

In 30 minutes try to remember the two strings of letters. Without looking at the previous page, write

the letters (or as many of them as you can remember) here:
String 1:
String 2:
What time did you remember to complete this part of the task?
Think about the 5 main processes involved in transferring information to memory: attention — encoding — storage — consolidation - retrieval
Were you able to remember both strings of letters?
 Were you able to remember to do the task in 30 minutes or did it take you longer?
 Is there anything you can do to more effectively commit the word to long- term memory?

SESSION 3: Attention

Review of session 2

Review of session 2: 5 mins

Discussion topics

• What did we learn about our memory from our take home activity?



Use questions to facilitate the discussion: E.g.

Were there any patterns in your memory problems? Were you able to place your problems with the stage of memory?

Has this helped you understand what is happening? Which strategies did everyone use to remember the letters?

Which was most effective?

Review take home activity: 5 mins

- What is attention?
- Why is attention important?
- What makes us pay attention?





Discussion topic
- attention:
5 mins

• Different types of attention:

Discussion topic – types of attention:

What is sustained attention (concentration)?

What is divided attention (multi-tasking)? Give some examples of each.



Sustained attention

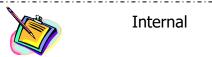
Divided attention

Explain: Sustained attention is when you concentrate on one thing using your full attention. Divided attention involves multitasking, so using your attention for multiple things at once. Sustained attention is usually best if you want to remember things or do a good job of a task.

Give examples if needed: E.g. Listening in a meeting, reading a book. E.g. Trying to have a conversation while watching TV, sending emails while you have music on.

What are the different types of distracters you can think of?
 E.g. physical, bodily, etc. List as many as you can below.

Discussion topic – distracters: 5 mins



External

------ BREAK ----- 15 mins

Newspaper Attention Exercise

Now you are going to have a go at an attention exercise. To help you to improve your attention skills, you should try to practice tasks like these several times a week.

1. Read the following newspaper article and put a line through every letter 'a' that you see. Try to be as accurate as possible whilst also working as quickly as you can. Time how long it takes.

Newspaper exercise: 20 mins

Tell the group: "Some tasks compete with each other and some don't, for example it might be really distracting if you are having a conversation while watching TV but you may be able to sing while showering. The tasks that do and don't interfere may be different for everyone, so for example some people find they can concentrate on writing while listening to music, but some prefer silence. This task will help you improve your attention skills and also learn about which tasks you can and can't do at the same time."

'How I fell for the Cotswolds' quiet charm' by Frances Mayes.

Lower Swell - we are at home in a stone schoolhouse that has undergone conversion into a comfortable Cotswold home and enclosed garden. The tiny cluster of surrounding houses looks equally mellow and natural in green, green radiant fields where sheep look as if they are posing for 'Mary Had a Little Lamb,' and the word chlorophyll comes to mind.

Our schoolhouse seems especially welcoming-three sofas to sink into, long windows where pink mallow branches sway, a table to seat twelve, if we knew so many to invite, and a fireplace. I could settle in for months. I imagine slanting rain on winter evenings, imagine reading the local writers, from Laurie Lee to Shakespeare.

We open all the windows, page through garden books, and spread our area maps on the coffee table for the pleasure of saying names aloud: Stow-on-the-Wold, Bourton-on-the-Water, Upper Slaughter, Chipping Campden. These could be settings for novels in which an intended note under the door slides under the rug instead and lies undetected until too late, far too late. The cheerful kitchen makes me want to whip up a batch of buttermilk biscuits. Maybe it's the sunlight pouring through the door, maybe it's the blue-checked curtains at the window and under the sink, maybe it's the yellow bowl of plums on the counter, or that the four burners on the stove are called hobs here. I like hobs.

(*The Guardian*, Sunday 1st April 2003)

•	Time 1	taken	for	task	1:	
-	1 11110	Carcii		Casi		

Letters crossed out in task 1:



There are 78 A's total (starting after title)

Tell everyone to hold up their hand when they are done and time how long each member of the group takes, let them know their times to write down at the end.

Then get the group to count how many letters they crossed out and write it down.

2. Repeat the above task, this time accompanied by a distraction (e.g. music or someone talking), and crossing out each 'e' you find in the article below:

Alice in Wonderland by Lewis Carrol

The rabbit-hole went straight on like a tunnel for some way, and then dipped suddenly down, so suddenly that Alice had not a moment to think about stopping herself before she found herself falling down what seemed to be a very deep well.

Either the well was very deep, or she fell very slowly, for she had plenty of time as she went down to look about her, and to wonder what was going to happen next. First, she tried to look down and make out what she was coming to, but it was too dark to see anything: then she looked at the sides of the well, and noticed that they were filled with cupboards and bookshelves: here and there she saw maps and pictures hung upon pegs. She took down a jar from one of the shelves as she passed: it was labelled `ORANGE MARMALADE' but to her great disappointment it was empty: she did not like to drop the jar, for fear of killing somebody underneath, so managed to put it into one of the cupboards as she fell past it.

`Well!' thought Alice to herself. `After such a fall as this, I shall think nothing of tumbling down-stairs! How brave they'll all think of me at home! Why, I wouldn't say anything about it, even if I fell off the top of the house!' (which was very likely true).

- Letters crossed out in task 2:

There are 115 E's total (starting after title)

Once the group have written down their times and counted the letters they crossed out, ask a few questions to get the group thinking:

- Did vou feel distracted?
- Did you take longer or miss out more letters with the distraction?

If anyone says they didn't feel a difference or felt they concentrated better with the distraction, highlight that this might not be a task that competes for them, so they have learned about what tasks they can do at the same time.

Remind the group the idea is if you practise these tasks a couple of times a week, it will help them increase their concentration.

How can we improve our attention skills?

Attention discussion: 15mins

Paying attention to where you have parked your car



Does anyone have any tips on how to pay attention when parking your car?

E.g:

- repetition (repeating the floor and area of the car park)
- Write it down
- Take a photo
- Note what is around the car
- Get rid of distractions, e.g. don't talk while parking
- Look back at the car from the entrance to the car park and try to take a mental picture

Remembering a face



Present the pictures of faces handout and have a similar discussion.

E.g:

- Look at the face as a whole, and then look at the details
- Pick out any unique details
- Imagine the face as if they were a cartoon
- Try to imagine the face afterwards/with your eyes shut
- Find associations do they look like anyone famous or anyone you already know?
- Repeat their name back to them and try to associate the name and face

Try out some of these with the faces.

• What techniques can be used to improve general attention?



E.g:

- Removing distracters
- Work out which environment you work best in and create it
- Free your schedule for important tasks
- Give yourself lots of time
- Work in intervals with breaks
- Make sure you only work on tasks that require full attention when you are in the right frame of mind



Take Home Activities

Take home activities: 10mins

Task 1

- 1. Find a puzzle in a newspaper, a Sudoku puzzle, word search or crossword, or find another activity that requires sustained attention. Try to find something that you do not often do.
- 2. Complete the puzzle with no distraction.
- 3. Spend some time completing the puzzle with distraction (e.g., TV, radio, other people around).
- 4. Do this activity twice in the week and bring the puzzles with you to the next session.
- 5. Make a note of the things you found most difficult about these tasks
 - e.g. Which distracters affected your attention the most?
 - Were there certain times of day when you found concentrating harder?
 - What did you do to try to prevent yourself from losing your concentration?



Task 2

Route finding



We now want you to practice remembering a basic route. Ask someone at home (partner/friend/carer) to create a route for you made of 6 steps, similar to the one below.

Focus on the points we have discussed during the session and try to use some of the techniques we have mentioned to remember the route.

Have four attempts to try and recreate the route, and ask to be shown the route again in between each one. Write down how many steps you got correct each time.

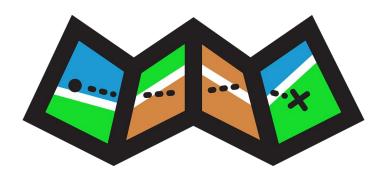
Example:

- Point 1: Start somewhere in the room
- Point 2: Pick up an object in the room
- Point 3: Walk to another part of the room and leave an item at this point
- Point 4: Walk to another object and touch it
- Point 5: Walk to another object and touch it
- Perform a specific action at this point (e.g., clap your hands)
- Point 6: End somewhere in the room

How many stages did you remember on each attempt?

Attempt 1	:
Attempt 2	<u>:</u>
Attempt 3	3:

Attempt 4:....



SESSION 4:

Attention II



Review of session 3

Discussion topics

- What did we learn about attention last week?
- What more did we learn from our take home activity?

Review session 3: 5mins

Review take home activities:
5mins



Use prompts:

Did you have any difficulties being distracted? Did you use any attention strategies from last week? Did you manage to remember the route?

Passage Attention Exercise

Passage exercise 1 and discussion:

Read the following passage and try to remember it as best you can:

Edward White, from Stoke-on Trent, and his wife, Angie, last week became the latest victims of a teenage gang who are terrifying the neighbourhood. The White family were visiting a local park on Saturday evening when they noticed a 14-year-old girl being attacked by a mob of 20 to 30 teens.

"They were coming in droves. Ten at a time, five at a time, White told reporters, "They saw the girl they were looking for and they all attacked her".

The couple stepped in to pull the girl away from the mob, when the youths turned on them. They both suffered serious injuries from the beating which only stopped when local police arrived to break up the gang. Several key members of the gang were arrested, but police are appealing for witnesses in order to trace others involved in the attacks.

TURN TO THE NEXT PAGE

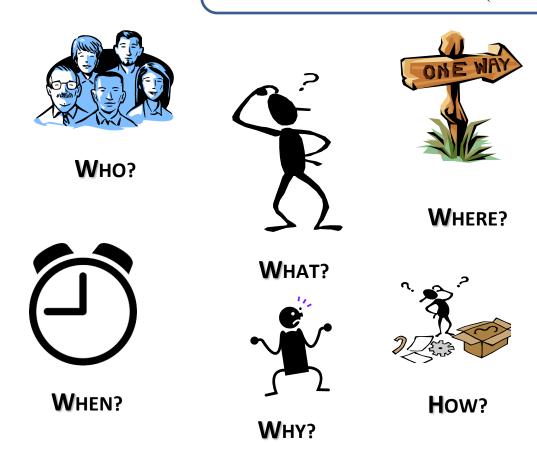
t recalling the	e information	n? What al	oout others	in the
apts: naturally use	any strategie	$\overline{}$		
l you focus on	i most:			

The 5 Ws and the H

5 W's and the H: 5mins

When you are paying attention to some sort of information, whether it's a conversation, appointment or newspaper story, it can be useful to think about the 5 Ws and the H... who, what, where, why, when and how?

<u>Tell the group:</u> "Now we will be trying a strategy on a task like the one you've just done. This strategy will help you focus in on the details you need to remember and block out irrelevant information (distracters)"



To use this strategy, when reading the information think about these questions and pick out the information to answer them, focus on these facts and use it as a structure to organise the information.

Ask the group to do the same reading task again, this time focussing in on the 5 W's and the H. If needed, write down the full words to prompt them.

Passage task 2, scoring and discussion:

Now read the following story and remember to focus on the 5W and 1H questions:

On Boxing Day last year, Jack Stevens from Chorley was eating dinner when the doorbell rang. He went to answer the door and found his next door neighbour frantically yelling about a fire that was engulfing her house and which had left her husband trapped inside. Mr Stevens' wife immediately called 999, but there was little time for waiting.

Stevens, 44 at the time, proceeded to the front door of the building and encountered heavy smoke. Upon entering the house into the living room, he saw what he thought was a foot about 12 feet in front of him. Mr Stevens moved through the heavy and accumulating smoke, grabbing the burn victim's foot and pulling him out of the house to the front lawn.

Deputy Chief Jim Walters, who was asked just after the incident whether Stevens saved the man's life, said, "no doubt." He also stated that he expected Mr Stevens to receive an award for bravery.



TURN TO THE NEXT PAGE

Without looking back at the passage, jot down as much as you can remember about the story. Use the following questions as prompts for more memory retrieval.

	~	
X		1

Who

What

Where

When

Why

:How

Task scoring:

Now ask the group to score their own passage tasks, giving 1 point for each full piece of information (e.g. for "Jack Stevens") and ½ point for any partially recalled piece (e.g. for "Jack" or "Josh Stevens"). Answer any questions by using your own judgement but don't spend too long worrying about exact scoring.

Now count up the number of points you remembered and compare it to the story that you read at the start of the session.

Story 1:

Precisely recalled information = (1 full point per piece) Partially recalled information = (1/2 a point per piece)

Total:

Story 2:

Precisely recalled information = (1 full point per piece) Partially recalled information = (1/2 a point per piece)

After scoring, have a brief discussion:

- How did everyone find using the strategy?
- Did they get more or less points using the strategy?

If someone got more points in the first task or didn't find the strategy useful, remind them of the toolbox analogy, this might not be a strategy that works well for them but it's still useful to find out which do and don't work. Also, is it possible that the strategy may cause them to remember less information altogether, but to more reliably remember the important points?

Total:

----- BREAK --

15mins

2 discussion topics: 10 mins

1. Based on our discussions over this session, the past session and your take home activities, when is it difficult to pay attention?

- a. When the information is not interesting or important
- b. When the information is not out of the ordinary
- c. When there are a lot of distractions around (e.g., noise)
- d. When tired, irritable, upset, etc. (your state of mind)

Make notes of any more distractions you can think of below:



What have the group learned about their own attention skills? e.g.

Have they found they can / can't listen to music without getting distracted?

Have they found they concentrate better at a certain time of the day?

Have they found certain tasks easier/harder to concentrate on?

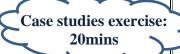
2. How can our attention be improved?

- a. By being aware of what you are doing, and why you are doing it (e.g., "I am parking the car")
- b. By focusing closely on the information (place, person, words, etc.), and paying attention to detail (e.g., "I'm parking on the 4th level, and the exit...a green door is to my right.... and from here I can see the clock tower")
- c. By repeating the information
- d. By making mental notes of the information or event



Everyday things such as parking the car can become automatic and therefore forgotten easily.

Any attention strategies we can use will make it explicit and require focus, helping us remember.



3. Case studies

Based on the 5Ws and the H, and the information we have learned about attention, what are the best strategies to improve attention in the following case studies?

Case Study 1: You meet a friend in the street. He tells you that some old friends are meeting at 7pm at the Greyhound Pub and would like you to join them later. How will you remember this message?



Give examples for these case study questions only if the group are struggling. If they are really struggling, show them the list of strategies on page 48.

Case Study 2: After a busy day, you rush home, cook dinner for the family and prepare to have some time for yourself in the evening. You just sit down in front of the TV to watch your favourite programme when you are interrupted by your partner/kids/the phone ringing. At the end of the programme, you are unsure what has happened as you found it difficult to keep up with the storyline.

- What can you do to help you remember what the partner/kids/person on the phone said?
- What can you do to ensure that you can enjoy time watching the TV programme and keeping up with the storyline?



	: You meet Ros	ember their na	
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can you pay a			

Depending on the time you have left, either make the group aware this list is here and read out a few strategies, or go through them all together.

List of attention strategies:
5mins

Strategies to remember the information you are given in a conversation: (e.g., Greyhound Pub example above)

- 1. Repeat it over and over again
- 2. Write it down as soon as you get home
- 3. Say "Can you please give me a call to remind me?"
- 4. Use imagery (picture your friends sitting around a table with drinks on them [pub], and with greyhounds sitting beside each [The Greyhound pub], and the clock chiming 7 [7pm])
- Slotting the information into your daily routine (e.g., telling yourself, "Right, after I do the dishes, I should get ready to go to the Greyhound")
- 6. Using the 5Ws and 1H (try and find, and remember, the answers to all these question): Who? What? Where? When? Why? And How?



Strategies to help you remember a name:

- 1. Repeat the name (to yourself)
- 2. Use the name in the conversation when possible
- 3. Write it down
- 4. Make associations with the name (e.g., where he/she was seated when you first met him/her)
- 5. Create an image for the name, by the way it sounds (e.g., Angela Webster, can be pictured as an angel, a web, and a star, all put together to form one picture)
- 6. Associate the name with a personality characteristic (e.g., "Oh John, the angry young man")
- 7. Use humour (e.g., call everyone "Charlie". This technique may not help you remember the right name, but it may get you out of the situation!)

Strategies to help remember where the car is parked:

- 1. Be aware of parking the car (try not to be distracted by other thoughts)
- 2. When getting out of the car, pay attention to the landmarks (name of building opposite the car, or floor level in car parks, etc.)
- 3. Look for big and small details
- 4. Make a mental note (say, "I have parked the car in front of ...")

Strategies to help you remember a face:

- 1. Look at it as a whole
- 2. Look for some characteristic detail, what makes this face unique?
- 3. Imagine how it would look if drawn as a caricature or a cartoon
- 4. Try imagining this face with your eyes shut

Strategies to help you put a name to a face:

- 1. Associate the name and the face to personality characteristics
- 2. Try to find the name in the face (e.g., "What about this person's face makes her look like an Angela?")
- Make associations with other people you know or know of with the same name
- 4. [remember the techniques of how to remember a name, and how to remember a face (from session 3)]



Take home activity: 5mins



Take Home Activities

Task 1

- Choose two newspaper articles of about the same length (a local paper may be best for this)
- Read the first one through, making sure you think about the 5Ws and the H.
- Put the article out of sight
- Record all of the key points that you remember in the box below:



 Now repeat the above stages for the 2nd article, and again, write down everything you can remember.





If you have asked yourself the: who, what, where, why, when and how questions when you are reading something, it is useful to use the same questions when you are trying to recall the information.

Task 2



Choose 2 or 3 memory difficulties that may be affected by how you pay attention. Write them down in the grid below. (You may wish to look back at your responses from the previous take home activities to help you).

- 1. Which attention strategies would you normally use to help you remember information?
- 2. Which are the strategies have we discussed that you do not use?

Memory Difficulty	Attention Strategies I currently use	Attention Strategies I am going to try
e.g. remembering content of conversations with my husband	e.g. asking him to repeat if I have forgotten	e.g. focussing on the 5 W's and the H
problen	if they aren't sure if it an atten n, to write it down anyway and a about it at the start of next se	you

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Continued...

- $\circ\,$ Think about these attention strategies and try to use them from the moment you get home.
- Before the next session, make a note of the things you found most difficult/most successful about implementing these strategies.
 - E.g., Were any of the strategies successful?

 Were any of the strategies not successful? Why?

 What will you do differently next time?





SESSION 5:

Introducing Internal Memory Aids



Review of session 4

Discussion topics

What did you learn from your take home activities?



Review of session 4:

5mins

Review take home activity:
5mins



Does anyone need help clarifying if it their issue was a problem with attention? How useful did you find the 5 W's and the H? Will you continue to use it?

1. What is meant by internal memory aids?

Internal memory aids introduction: 10mins

2. What kind of internal memory strategies do people use now?

Write these down here:



If members of the group aren't sure if they use any, highlight that most people use rehearsal and repetition.

What are internal memory aids?

These are memory aids that require you to mentally process, organise, and think about the information you wish to remember, instead of relying on external aids.

Over the next three sessions we will discuss some of the internal memory aids people use. You may find some of them useful. Remember that you will probably not use all of them and you will find some suit you better than others. The aim of this session is to help you select the best techniques for your own personal 'toolbox'.

Rehearsal and Repetition: Does practice make perfect?

Rehearsal and repetition;



This strategy involves repeating information silently in your minds or vocally (out loud) that you want to remember. You can use this technique for quick, immediate recall.

Example: repeating a number you have found in the telephone directory until you can dial it.

- Think of a time you needed to memorise information and recall it, for example a presentation/speech or facts for an exam.
- What type of strategies did you use to remember the information?



Is there a preference for external strategies? What if there was no pen/paper etc available?

Chunking activity: 10mins

Chunk it! Chunking

Chunking involves grouping or clustering items together to form units. It is particularly useful in remembering a string of numbers, like phone numbers, post codes, etc. This strategy works because it effectively reduces the number of bits of information to store in your memory.

• Spend some time trying to remember the following telephone number:

01842586729

Ask the group to do this individually, in silence so as not to distract others. Give 5 mins.

• Once you have learnt the number, cover it and write it down here:



How did you remember the number?

Briefly discuss this.
Did chunking make the phone number easier to remember?

• How many 'chunks' did you divide the number into?

----- BREAK ----- 15 mins

Categorisation activity:
20mins

Categorisation

This technique involves our grouping of items according to particular categories. You can make your own categories based on one of the many principles of grouping. Groups can be made on the basis of colour, shape, common themes, etc.

Example: You need to buy apples, pens, a sharpener, pears, a rubber, oranges, and a pencil. One way to recall these items is to memorise them all as one group. The other way is to group them into two categories, and recalling the two categories (fruit and stationery) may help you remember the items in each.

Try this exercise: Look at the grid of pictures. Take a few minutes to group the information into common themes. Choose the themes that would suit you best and assign each item to a theme.

E.g., Theme 1: Animals – cat, dog, stork

You can make notes of your themes and the items that go with each theme below:



Give the group a few mins to categorise the pictures.

Depending on how well your group work together it is best to do this in either couples or individually. If the group get very stuck, suggest

some categories.

Now try to remember as many of the items as possible. List them here. Use your themes to guide you:



After a few mins, take the picture grid away and ask the group to write down as many of the items as possible, without saying them out loud.

Total number of items remembered.....

Why can we remember more when items are put into themes?

Chunking the items into categories decreases the amount to remember and the categories can be used as a prompt to remember more information. The categorisation also adds meaning to the items to be remembered - making them more memorable.

 What other pieces of information can you organise (chunk or categorise) in your everyday lives to help you remember something?



E.g. Shopping lists / to do lists

• Can you remember the phone number from the beginning of the session? Write it down here, or as many of the numbers as you can remember.

Phone number recap: 5mins

Take Home Activity

Task 1



Think about the different ways you already use to learn and remember information that is important to you. List them here:



Task 2

Now think about some of these strategies that we talked about today for organising the information and processing it more meaningfully. The next time we meet it might be helpful to discuss how you went about **learning something new.** Attempt to use some of these new strategies you learnt in the session to learn something new or to help you remember information.

Think about the following questions:

- 1. What did you attempt to learn?
- 2. What new strategy did you use?
- 3. Was this strategy helpful?
- 4. If not, why do you think it didn't work so well, and what other approaches can you use in the future?



SESSION 6:

Internal Memory Aids II



Review Session 5

Discussion topic

1. What did you learn from the take home activity?

Review session 5 &
Review take home activity:
5mins

As there is more content in this session, these need to be done more quickly than usual.



What strategy did you try? Did it work?

Deep vs Shallow Processing

Our ability to remember information can depend on the way we process it. If we only process a piece of information in a **shallow** way, it will form a weaker memory trace and be more likely to be forgotten.



If we process the information using **deep** processing it will become a stronger, more long-term memory trace and we are more likely to remember it.

Exercise (part one):

Present the first newspaper image for 2 mins
Ask the group to verbally recall as much as they can

Shallow processing task:
5mins



Look at the newspaper image and for a couple of minutes and discuss what you remember with the group.

What is deep-level processing?

Deep-level processing involves understanding and **attaching meaning** to the information you want to remember, and rehearsing it in a meaningful way

What are deep/shallow processing:

15mins

information you want to remember, and rehearsing it in a meaningful way which requires effort.

If you want to learn some new information and to organise it in your mind so that you are better able to recall the information later, it is better to use deep processing.

What is shallow-level processing?

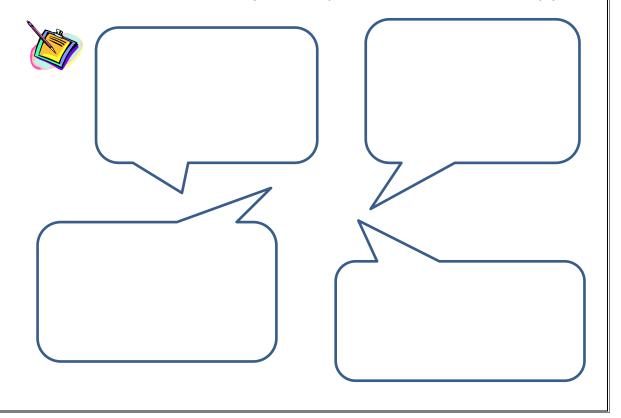
Shallow processing is when we only think about and process the new information in terms of what it looks like or sounds like.

For example, if we repeat the same word over and over again without really thinking about the word and its meaning, it may help it stay in your short term memory but won't help you remember the word long term.

Examples:

Example	Shallow processing	Deep processing
Trying to remember the word "Kat"	Repeating the name	Imagining the person with cat ears and tail
Creating a password and trying to remember it	Repeating the set password to yourself	Changing the password to something which is already meaningful to you, e.g. your partner's birthday
Trying to learn about a topic in a lecture	Listening to the lecture	Writing the information down in your own words

Discuss and write down more ways we can process information more deeply:



Write down some more examples of shallow processing in everyday life:



E.g. Someone telling you information you don't need or don't fully understand like at a doctors' appointment

Exercise (part two):

Deep processing task: 5mins



Look at the second newspaper image and this time think about it in terms on what is happening, meaning, and try and make some associations.

Discuss what you remember with the group and write below how you found recalling this image compared to the first, shallow processed photograph.



Visual imagery task:
10mins

Visualise it! Visual imagery

This strategy involves the use of making mental pictures of information that you would like to remember. This strategy can be used effectively to remember names of people, faces, where you have kept something, etc.

Example: You can remember the name Theresa Lockhart, by making a mental image of Mother Theresa with wearing a locket the shape of a heart that can be opened with a key.

Or, for the name Teddy Fisherman, perhaps you could picture a teddy bear on a fishing trip.

It's a good idea to make your images as elaborate as possible.



Exercise: At a friend's party, you meet Susan and Andy Wright.

Take a few minutes to think of a mental image of how you would remember their names. After you have committed the image to memory, jot down or draw the image you have created in the space below:



Participants who are naturally less visually creative may need support with this.

Encourage them to be silly with it, it doesn't matter if their picture only makes sense to them and no one else!

Tips for creating effective visual imagery



- 1. Form images in your mind
 - a. It's usually good to use concrete nouns (like ball or tree) as they are easiest to visualise
 - b. It is more difficult to visualise numbers or abstract information (e.g., 'democracy') so more effort to create visual images is required, but it is possible.

For example, try to associate the abstract information with concrete nouns. What type of image can you come up with to represent 'peace'?



- 2. Create associations between images
 - a. **Interaction** Make them interact in some way, not just pictured beside each other
 - b. **Vividness** Make the images really clear in your mind
 - c. **Bizarreness** Unusual or ridiculous images can be remembered the easiest. For example, if you are trying to associate an image of a mouse and a pen, imagine writing with a real mouse as though it is a pen
 - d. **Emotion** Images that evoke an emotion, especially, a positive or funny emotion can be beneficial. Stay away from negative emotions!

----- BREAK ------

15mins

Associations



Associations can also help you remember by connecting new information to old information (or routine tasks) that is already in your long term memory.

Example: Your friend's birthday on the 27th of December can be remembered as two days after Christmas

Example 2: You might try to remind yourself to phone your friend after lunch.

When do you use associations?



In case the group are stuck, use more examples: E.g.

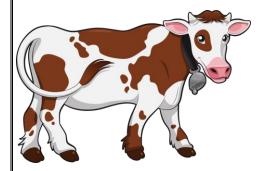
- Leaving a gift by the door to remind you it's your friends birthday
- Remembering a new person's name by thinking of someone you already know with the same name.



The story method

Story method: 10mins

This strategy requires you to make a story that incorporates all the different bits of information that you wish to recall into the story itself.



Example: If you want to remember to post a letter and buy some milk and sweets for your children's' party tonight you could make a story such as:

There was a boy who went to the post office, but on the way he met the milk-man who was taking his cow out for a walk, so the boy gave the cow some sweets to eat, which made the cow so happy it began to party.



Exercise:

Imagine you wake up and have a lot of things to do today. You need to buy bread, eggs, dates and soap, drop off 2 suits at the dry cleaners, collect a prescription, and meet a friend at the cinema.

Using visual imagery and the story method, spend 5 minutes making up a way of linking and remembering the information. Try to make the images as bizarre and vivid as possible.

Ask the group to do this on their own. Tell them to visualise the story happening to help them remember it.

If the group are stuck and can't think of a story to link the items, suggest this one:
"A slice of bread and the egg are going on a date. The bread is getting ready for the date and washing using some soap, while the egg is picking up his suits form the cleaners and collecting a prescription. They both meet up at the cinema for their date and they bump into some friends."

First letter cues

Using the first letter of words can be a useful strategy for

learning lists. The first letters can be arranged alphabetically, or the first letters can also make a prompt word that can help jog your memory of the list. Example: If you need to remember to buy carrots, apples teabags and sugar, you could use the first letter cue: CATS.

Rhymes

Making up simple rhymes and songs can aid recall of information. The added effort to create a rhyme will mean the information is more deeply processed.

Example: The rhyme, "Thirty days have September, April, June, and November..." helps you remember how many days there are in a particular month.

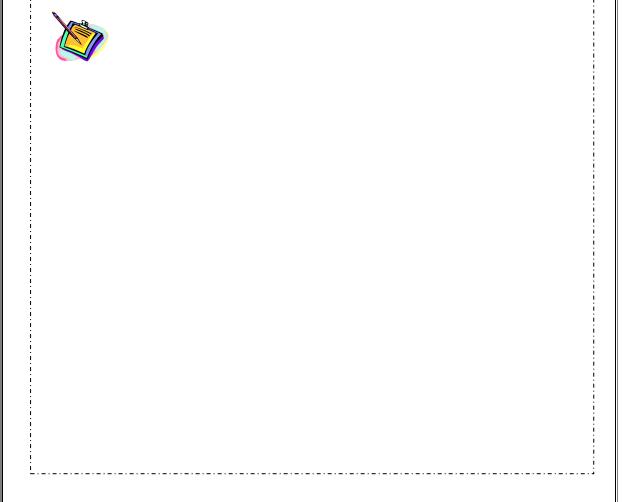


Take Home Activity

Task 1

Earlier you were asked to come up with a visual imagery story to remember what to do during the day. Are you able to remember the story now?

Without turning to the previous page, take a couple of minutes to remember the story and then write it in the space below. Did you accurately remember all the things you need to do?





Task 2



- Attempt to use some of the internal memory strategies discussed in today's session to **learn something new.**
 - Maybe try to learn someone's name?
 - Or try to remember the tasks that need doing for the day?
 - Or apply some of these strategies to other things you are trying to remember at work or at home?
- What successes and problems did you experience?



• What techniques did you prefer and why?



SESSION 7:

Internal Memory Aids III



Review Session 6

Review session 6: 5mins

Discussion topics

- Feedback from take home activity and experiences of last week's internal aids
- What were the main positive and negative points made by the group and what can be done to reduce problems and enhance success?



- What was fun/useful/positive about the strategies we went through last week?
- What was not so useful?
- How can we improve them?

Positives

Negatives

How can we improve our success with internal memory aids?

Practise!

Encourage the group to practise these strategies, especially the visual imagery ones/ They may be difficult for group members who aren't creative, but this can be improved with practise and confidence.



Review take home activity:

5mins

Internal memory aids III:

Little and often strategy: 15mins

Little and Often....

It's better to work for a few minutes several times a day than for one long period. The same is true about trying to remember something. Try to spread out the information to remember over a certain amount of time, and try to remind yourself little and often.



Exercise:

Read out the list of 20 words slowly (around 1 every 3 seconds) and ask the group to remember as many as they can and then write them down after you have finished the list.

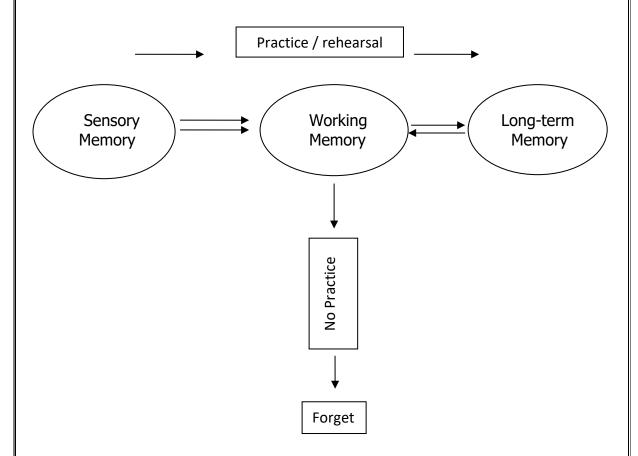
Listen to the list of 20 words and try to remember as many of the words as possible.

Write down as many of the words that you can remember now:



We tend to remember words best if they have been read at the beginning (called the *primacy* effect) or at the end (called the *recency* effect) with everything else in the middle most likely to be forgotten.

Can you remember this diagram that was shown to you during Session 2?



It is thought that memory is good for the words read at the beginning because they have moved to our long-term memory, and words that are remembered at the end are still in the short-term (working memory).

In order to get all of the words (or information that needs to be remembered) into your long term memory, you will need to repeat them little and often.

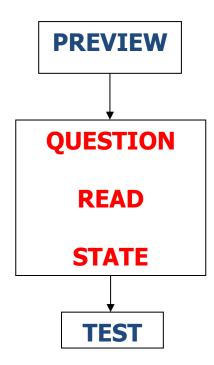
Example:

If someone asks you to give a message to someone, repeating the message immediately afterwards to yourself will be useful. Then, every so often, remind yourself what the message was, especially after a time doing something else. You can gradually increase the intervals between reminding yourself of the message and it should get stored in long-term memory. When you next see the person to give the message to, the message should be easier to retrieve.



The PQRST Method

This strategy is particularly useful when you have some material from books and articles you wish to remember. PQRST are first letter cues that stand for **P**review, **Q**uestion, **R**ead, **S**tate, and **T**est. This technique also helps you to understand the material at a deeper level.



P – Preview: read through the information once and get a feel of the whole text

Q – **Question:** ask yourself questions about what you have read

R - Read: re-read the whole text

S – State: see if you can answer the questions you had posed

T – Test: see if the answers you came up with were correct





Exercise:

Read the following article and try out the PQRST method. It's ok to make notes on the article page as you are reading! Ask the group to read the article in silence so the others can concentrate.

When they are finished, ask them to turn the page and write down some questions on what they have just read.

Tornadoes are vertical funnels of rapidly spinning air. Their winds may top 250 miles (400 kilometres) an hour and can clear-cut a pathway a mile (1.6 kilometres) wide and 50 miles (80 kilometres) long.

Twisters are born in thunderstorms and are often accompanied by hail. Giant, persistent thunderstorms called supercells spawn the most destructive tornadoes.

These violent storms occur around the world, but the United States is a major hotspot with about a thousand tornadoes every year. "Tornado Alley," a region that includes eastern South Dakota, Nebraska, Kansas, Oklahoma, northern Texas, and eastern Colorado, is home to the most powerful and destructive of these storms. U.S. tornadoes cause 80 deaths and more than 1,500 injuries per year.

A tornado forms when changes in wind speed and direction create a horizontal spinning effect within a storm cell. This effect is then tipped vertical by rising air moving up through the thunderclouds.

The meteorological factors that drive tornadoes make them more likely at some times than at others. They occur more often in late afternoon, when thunderstorms are common, and are more prevalent in spring and summer. However, tornadoes can and do form at any time of the day and year.

Tornadoes' distinctive funnel clouds are actually transparent. They become visible when water droplets pulled from a storm's moist air condense or when dust and debris are taken up. Funnels typically grow about 660 feet (200 meters) wide.

National Geographic Online

Test yourself – try and recall as much as you can using the PQRST method! Remember: Preview, Question, State, Read and Test 15mins ----- BREAK -----

Chocolate truffles task: 15mins



Breaking down tasks:

Information can be more easily stored if it is broken down into manageable chunks. As with the telephone number earlier, this can be done with other types of information. One example is recipes, which are naturally broken down into manageable steps. With a partner in the group, try to learn the follow recipe for chocolate truffles.

Chocolate truffles:

- 1. Crush the digestive biscuits together until smooth
- 2. Mix the chocolate, coconut and crushed biscuits together in a bowl
- 3. Add the tin of condensed milk
- 4. Combine them all together until you end up with a sticky dough
- 5. Put the mix in the fridge to cool and become less sticky to handle (10 mins)
- 6. Roll the dough into balls, roll them in cocoa powder and place in cupcake cups
- 7. Keep in fridge to harden for around 20 minutes

When you have learnt the recipe, cover the instructions above and write it down in the space below.



Encourage the group to use a mixture of different strategies e.g. chunk the information and visualise it too



Which other strategies did you use to remember the information?





Memory retrieval top tips:

When we are trying to retrieve information, such as the reason why we went into a room, it is always worthwhile to:

1. *Relax* – the more we stress or worry about remembering, the less likely we are to retrieve the information



Retrieval tips:

- 2. Use *mental retracing* what were you doing just before?
- 3. Think about the *context* you were just in (context dependent memory)
- 4. Use *alphabetical searching* Think 'what does the word begin with?', particularly useful when a word is on the 'tip of the tongue'
- 5. Understand that everyone experiences memory difficulties at times

Take Home Activity

Task 1

Part 1

- Attempt to use some of the internal memory strategies discussed today.
- What successes and problems did you experience?
- Which technique did you prefer and why?





Part 2

- Identify a task you would like to complete (e.g., setting reminders on mobile phones, remembering the name of someone new).
- Write down what the task was and how you felt about the learning process.
 Were you successful? Were you able to complete the task a few days later?



Task 2

Bring your diary with you to the session next week!

You will not have to share the information inside the diary with anyone, but it would be useful if you had yours with you as we will be discussing the use of diaries.

If you do not have a diary, it may be best to buy one (even if it's a small pocket one) after the next session.



It doesn't have to be a paper diary, many people use an electronic diary on their smartphones.

SESSION 8:

Introduction to External Memory Aids & Diaries



Review of session 7

Discussion topics

What did we learn from our take home activity?



Review of session 7: 5mins



Review take home activity:
5mins

Complete the following table, reflecting on the internal memory aids we have covered in the sessions and have a think about the external memory aids that we can use:

Introduction to external

memory aids & diaries: 10mins **Internal memory aids External memory aids** Outside you Inside you Can be touched Require active mental processing of information **Definition** "So far we have focussed on internal strategies, but today we will move onto external strategies." Talk through and complete the table together and ask them to write down the answers. Rehearsal **Timers** Associations **Diaries Examples**

What are external memory aids?

External memory aids are any strategy that requires a physical aid. They are external to your mind i.e. you can touch them.

It may be useful to use an external memory aid instead of internal in certain situations, for example if there is long gap before retrieving the information (e.g. a dentist appointment in a few months' time) or if you have a lot of other things to do in between.

We will be looking at a variety of different external memory strategies and ways we can use them to make them more effective.

Introduction to diaries

Diaries are an excellent memory aid for many keeping different types of information in one place. You may keep notes, dates, appointments and to do lists in your diary.

The physical act of writing information in your diary will also force your brain to process it more deeply and help you remember it. It may be either a paper book or an electronic diary on your smartphone.

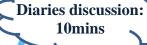


There are benefits of each of these. Tell the group to use whichever they feel is best for them. If they find technology confusing, use a paper diary. If they like to use their phone a lot and have it all on there that's fine.

Using a diary effectively

Discussion questions:

"As a group, we're now going to discuss these questions and fill out the table on the next page about problems with diaries"



- 1. Do you currently use a diary?
- 2. What kind of problems do you think you face when using a diary?
- 3. What are the possible solutions to these problems?

Use the table on the next page to record particular problems that may affect you, and the possible solutions to these problems:

Diary table: 15mins

	Potential problem with diary use	Possible solutions to the problem
1	e.g. Forget to write in my diary	Set alarms to remind me to write in the diary before bed Make writing in the diary part of my daily routine
2	Work through and fill out the ta time. Don't let the group split of conversations to make sure you Take enough time to fully discus brought up.	ff into multiple all hear all of the answers.
4	Examples of problems (only use if the group have run out of ideas): Forgetting to check diary Diary gets messy Battery on phone running out Losing diary Too bulky to carry around	Examples of solutions: Set timers to remind you to check diary every day and make it part of your routine (e.g. check while eating breakfast) Use 5W's and the H as frame for diary entries, only write details Charge phone every night Duplicate diary into a bigger diary kept at home, and carry small one.
5		
6		

Run through any points below that were not covered by the group in the table on the last page.

Diary tips: 4mins



Useful tips when using a diary:

- Make the diary part of your everyday routine
- Always keep it in the same place and get into the habit of checking it regularly
- Buy a diary that is best suited for you and your lifestyle
- A good one would have space for hourly appointments and an opportunity for you to see the week at one glance (on one page)
- Having space to enter some notes on each page / under each day is useful
- It's useful if your diary has space to enter phone numbers and addresses
- If you wish to separate your entries into two or more categories (e.g., personal and professional engagements) use different coloured ink for each, or split each day/page into two sections, one for each category
- Use Post-it notes to write temporary reminders which can be stuck in your diary
 - Post-its can be moved from one page to another, to remind you to do things you had planned to do
 - to-do lists can be written on Post-its and each item can be scored off as and when they are completed, and the remainder of items can be remain on the list, with the Post-it simply being moved to the next day's page
- Entries can be both prospective (things you want to do) and retrospective (things that you have done)
- Your diary itself can become a memory place, where you can leave other notes, bills, memos, etc.
- Encourage family and friends to write / ask you to write things in your diary, or have a family diary
- Use coloured pens to make important notes stand out, or colour code your entire diary!



Potential problems encountered in using a diary:

- > Deciding what type/size of diary will be best for your lifestyle
- Forgetting to make an entry
- > Forgetting to check entries
- > Transferring information from one diary (or piece of paper) to another
- Mislaying diary
- Forgetting to cancel appointments that have been called off/cancelled
- > Making haphazard entries making locating entries difficult
- > Not understanding what a diary entry means because you haven't written enough detail



Possible solutions:

- ✓ Transfer information from notes to your diary as soon as possible or keep a fixed time daily where transfers are done
- ✓ You could try writing all information on Post-its and stick them in the diary
 for entries later
- ✓ Always keep the diary in one place (take the phone to the diary if possible), this may prevent you losing it
- ✓ Alternatively, you could put your diary in a bag that you always take around with you (this also helps in case you need to make some appointments when you are out of the house)
- ✓ Make entries as soon as possible (e.g., while fixing an appointment)
- ✓ Alternatively, make and check entries at a fixed time daily
- ✓ Once a planned activity has been carried out, cross it out or tick it off so that the focus is on upcoming activities
- ✓ Get a diary with hours marked out on each page, so that entries can be written in next to the appropriate time and date
- ✓ Make entries with enough detail so you will understand what you need to do later, but keep them short and simple so they are easy to read quickly (writing legibly may also help!). You could use the 5 W's and the H strategy to help use write entries: Who? What? When? Where? How?
- ✓ Enter phone numbers and addresses only in the phone / address section, and not randomly elsewhere



---- BREAK --

15mins

Allow the group to discuss these thoughts briefly. Do they experience fatigue?

Do they need to plan more time for breaks?

Pacing activity:

Energy levels

Making the most of your energy: Pacing activity

How do you plan your days?

Do you **plan** your day, or do you **respond** to your day?



Making the most of your energy is very important, especially if you experience fatigue.

We are now going to look at ways you can make the most of your energy during the day, and avoid burnout or exhaustion.

Remember the 3 Ps:

"Diaries can be a great tool to help with the 3 P's. So you can use your diary to plan out your day, including the prioritising and pacing."

1. PLAN

Plan your day: Make a list of things to do. Set time slots to do the tasks, making them generous and allowing for breaks.

2. PRIORITISE

Decide what is most important to be done today. Perhaps put a star next to the important things. Decide what can be done another day. List your to-do list in order of importance.

3. PACE

Take regular short breaks.

Break your tasks into steps and take a break between steps.

Pace yourself during activities, do not rush. Pace yourself during the day.

Pacing requires self-discipline as it's natural to want to get to the end of a job. However, it is much better to take things steadily rather than continuing with an activity to the point of exhaustion and being forced to rest for longer.



Planning and pacing tip:

Be kind to yourself and don't push yourself too hard and overwhelm yourself with things to do. Make a to-do list including everything, even getting up and getting dressed. Congratulate yourself for anything you have ticked off at the end of the day.

It's also very important to **monitor** closely how you are feeling throughout the day. Be on the lookout for signs such as: Yawning, tiredness, aches and pains, brain fog and difficulty thinking.

If you are tired, do one of the following things:

- **Stop.** It is ok to finish something another day
- Delegate the task or ask for help
- **Take a break** and come back to the task when you have more energy
- Do a different task for a while, if you are not yet exhausted but need a change



What specific things can you do to ensure that the energy you have is used efficiently?



Use prompts if the group are unsure: Have you ever been exhausted to the point of fatigue? What happened? What could you do to avoid this again? "We've got a few tips here because it's really important that you feel positive about the things you are doing to help your memory. It makes a big difference in how effective they are going to be for you"

Positive attitude to memory aids: 5mins



Developing a positive attitude about using both internal and external memory aids:

- 1. Everyone needs to use them whether they have a memory problem or not
- 2. Experiment try to develop your own techniques to help you remember better
- 3. Make sure you *recognise a purpose* for the strategy if you have any questions about why a strategy is useful or how it works, ask your group leader to explain
- 4. Be flexible use different strategies to suit various situations
- 5. Remember try to use 3-6 aids for better memory



Take Home Activity

For the next week, consider starting using a diary as a way of keeping track of what you need to do in the next week. If you already use a diary, think about using a new strategy to make your current diary more effective. Begin using the diary or the new strategy over the next week! Make sure it has plenty of space and perhaps think about how you can attach a pen to it.

What techniques do you plan to use to make sure the diary works?
 What information will you record in the diary? (e.g., appointments, 'to-do' lists, things to remember)
 Have you experienced any difficulties in the first week of using it and planning your week?



Take home activity:
5mins

SESSION 9:

External Memory Aids II



Review of Session 8

Discussion topics

Take Home Activity: Success and difficulties



Spend a little longer than usual reviewing how using the diaries went. E.g.

How did you find your first week using your diary? Was it useful?

Review of session 8: 5mins

Review take home activity:
10mins

Diaries are not the only external memory aids available to help you remember things. There are many options, and it will be the most helpful if you select a few external strategies you can use together which fit in with your lifestyle.

Below is a list of many of the available external memory aids. Think about the potential problems when using each one.

What are the solutions to these problems?

Other external memory strategies: 20mins

Memory aid	Problems	Solutions
Smartphone apps		
GE STATE OF		
Other people		

Lists TOP 10	
Post-its	
Calendars	
Personal organisers	
Noticeboards	
Non0	

Timers / alarms			
Computers			
Dictaphones			
SONY			
Are there any memo What prevents you f	ry aids that you would rom using these memo	l like to use? ory aids now?	External mer strategies disc 10mins

Case studies: 15mins

Case Studies: Making life a bit easier

Using the following memory aids (and any others that you can think of), discuss which external memory aids each person in the case studies may need to use to plan his/her day.

- Notepad beside phone
- Notepad beside bed
- Notepad to carry around
- > Lists
- Diary
- Calendar/wall chart
- Pill box/medication
- > Leave something in a prominent place (or the same place always)
- > Leave something in a prominent place so that it acts as a prompt
- Notice-board
- > Alarm clock
- > Computer
- > Timer
- > Ask someone to remind you
- Pacing Activity
- Dictaphone/Voice recorder



Case Study 1

Katy is struggling to keep up with remembering what to do each day. She is out and about all day and has to remember lots of things. Last week Katy missed 2 appointments.

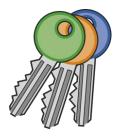
 Which external memory aids can Katy use to help her keep track of everything she needs to do?



For each case study, ask the group to suggest external strategies, or a system, that might help the person and write them down.

Case Study 2

Alan is finding it difficult to find things around the house. He keeps misplacing his keys and glasses which means he wastes a lot of time finding them. He also struggles to take his medication on time.



 Which external memory aids can Alan use to help him with these memory difficulties?



Case Study 3

Miranda leads a very busy life. She is working part-time and has kids and finds that she tries to do everything at once. By late afternoon Miranda is exhausted with fatigue. She feels very stressed late at night with lots of 'things to do' the next day buzzing around in her head.



 What can Miranda do to feel less fatigued and stressed, and get everything done that she needs to?



Case Study 4

Michael very efficiently wrote notes about important conversations and messages on pieces of paper. He ended up losing a lot of the pieces of paper and is having difficulty with his vision.



 Which external memory aids can Michael use to help him with these difficulties?





Useful tips when using external memory aids:

Useful tips: 5mins

- Incorporate things into daily routine (e.g., charge phone every night, leaving the charger in one place all the time)
- Keep your list in a prominent position and keep writing things down as soon as you remember something
- Use different colours (to prevent monotony from setting in) ... marker pens, post-its, etc.



Take Home Activities



Task 1: Trying out new external memory aids

This week, begin to experiment with some different external memory aids to those you have used in the past.

➤ First, list the externa	al memory aids which you alrea	ady use:
•		
Now, make a note of put this plan into ac	of any new aids you would like tion:	to try, and how you will
External aid e.g. Notice board	First step Buy a pin / white board	Putting it to use Keep a note of all info needed for day and inform family to write on it too
1		
2		
3		

Now put your plan into action! Try out the new memory aids and record the problems you face and the successes you've had in using them.

Task 2: Remembering to do things in the future (Prospective memory)



1. Choose an afternoon or evening to complete the following memory task. In order to complete the task you should try to use any external and/or internal memory aids that you feel will help you to remember what you have to do. You may decide to use just one aid, or a combination of methods.

Write the time y	ou are starting	the task here	(start time)	(

Below are three boxes. Aim to mark an X in the first box one hour after the start time, and record the actual time when you've done this in the space provided (no cheating!). You should then mark an X in the second box two hours after the start time, and in the third box three hours after the start time. (This task will take three hours)

Actual time remembered
Actual time remembered
Actual time remembered

- How did you remember to do this task?
- Which external memory aids did you use?
- Which internal memory aids did you use?
- If you used a number of methods, which methods were most useful?





SESSION 10:

Review & Fine - tuning



Review session 9

Discussion topics

• Successes and difficulties with take home activity tasks

Successes

Review session 9: 5mins

Review take home activity: 5mins



Difficulties

What are the solutions to your difficulties?

Go back to the beginning of the workbook together. Spend a few mins flicking through and reminding the group what you covered in each session. Focus on the strategies they learned. Review all sessions: 15mins

 Look back through all the sessions – attention strategies, internal memory strategies, external memory aids. List your favourite and most effective strategies below, which you think you'd like to continue using.

Favourite strategies:

	Favourite Aids/ Strategies	Why you like them		
Attention	Lay the spider diagrams of all the internal and external strategies out so the whole group can see them. Ask the group to complete the table with their favourite			
Internal	strategies that they	nave learned.		
External				
	BREAK 15n			

Back to session 1...

Ask the group to turn back to page 14 to remind themselves of their problems at the start of the programme, and fill out the identical table below to show if anything has changed.

Review changes: 15mins

• Think about the main memory problems you recorded in the session 1 take home activity (pg14) and re-enter them in the table. Then, as before, state how often each occurs now (i.e. hourly, twice daily, weekly and so on) and reflect on how much you feel they affect you now.

		Memory problem faced	How often this occurs	How much it affects you 1= not at all 5= severely	Techniques used (if any) to deal with it
:	1				
2	2				
	3				
4	4				
į	5				

Discuss changes since the programme/ feedback: 15mins

Discussion Topics

- Group feedback
- What did the group gain from attending this programme?
- What were the difficulties you faced and how did you overcome them?



Leave this section as a very open discussion for anything relevant.



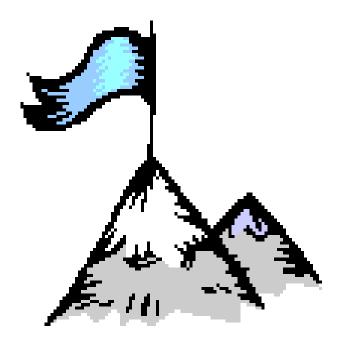
That's it!

We hope you have enjoyed the sessions and will continue to use the strategies you have learnt over the last ten weeks.

Please keep this workbook so you can look back to refresh the strategies in your head as and when you need them.

Thank you for attending the programme.

* * *



What happens next....

Final Take home activity:



Continue to use the strategies we talked about during the session to manage your memory difficulties at home. Look back over this workbook if you ever need to remind yourself.



