



Lawns Park Primary School

A Quick Guide to Working Memory

What is Working Memory?

Working memory is an executive function that allows us to hold information in mind whilst working with it. It is like a mental jotting pad or workspace. For example, following a set of verbal instructions, recalling the mental calculation 24×15 . Working memory is critical in the process of storing information in long-term memory. It is also critical in retrieving previously learned information from memory. In fact, most of the 'work' in the memory system occurs in 'working' memory where information is managed, manipulated, and transformed. Working memory capacity differs from individual to individual. Students with working memory difficulties can hold fewer pieces of discrete information in their mind at any given moment. They hear what you said, or see what is presented, but as more information overwhelms their memory system, they lose previous information needed to successfully complete the task. Once information is lost it is not likely to be retrieved.

Implications for a pupil

Pupils with working memory difficulties may present with the following:

- Normal social relationships with peers.
- Reserved in group activities.
- Poor academic progress.
- Difficulties in following instructions.
- Appears to be inattentive, to have short attention span and to be distractible.
- Copies from peers.
- Has difficulties remembering facts and procedures.
- Exhibits slow retrieval of information.
- Difficulties attending to details, such as beginning to write a sentence and then struggling to remember all the words in the sentence, skipping words when writing sentences and writing shorter sentences (to reduce demands on working memory).
- Makes place-keeping errors such as losing track of steps completed or steps yet to be completed. Can repeat steps already completed or constantly starting over.
- Have difficulties starting and completing work.

How to help – top tips

Verbal and non-verbal information are processed by different pathways – a student can therefore be strong in one and weak in the other which can make it possible to provide compensatory strategies which align to the students strength e.g. having information presented in the form of models and images, if weakness is with processing verbal information, or vice versa if they struggle to process information which is presented visually.

1. Reduce material to be remembered (chunking/visual or written version)
2. Increase meaningfulness and familiarity of material (make it relevant / overlearning)
3. When teaching complex tasks, teach step by step. Teach one strategy at a time in brief, focused sessions.
4. Repeat important information (in different ways and in different contexts).
5. Encourage the use of memory aids e.g., personalised dictionaries, multiplication grids, mnemonics, diagrams/illustrations, colour coding and highlighting.
6. Use visual, auditory, and kinaesthetic activities and cues. (interactive and multi-sensory)
7. Provide help sheet/top tips with simplified written guidance.
8. Provide key vocabulary or information (displays and key word mats)
9. Encourage self-monitoring through visual task boards or lists to highlight what needs to be remembered and done.
10. Make semantic links e.g., mind map or put information into a sentence to be remembered.
11. Teach memory support strategies e.g., BBCITVGMT can be remembered more easily as 3 chunks than a list of 9 letters.
12. Create opportunities to practice skills in different contexts to consolidate/generalise.

Further advice and support

Training :

Memory Training & resources

[eLearning: Supporting pupils with memory difficulties \(primary and secondary\) 2022/23 | Leeds for Learning](#)

Reading:

Working Memory Difficulties – Teacher's Guide
[Ways to help children with working memory difficulties in the classroom.pdf \(bradford.gov.uk\)](#)

Understanding Working Memory, a classroom guide by Gathercole & Alloway.

<https://www.specialneedsjungle.com/wp-content/uploads/2021/04/WM-classroom-guide.pdf>