

Dealing with Working Memory Deficits

Sometimes students can have a deficit in WM. Close attention needs to be given to such students to help them engage and use whatever memory capacity they have.

Researchers suggest that where WM is a deficit, WM overload during learning prevents the acquisition of the new knowledge. Therefore, it is believed that the best way of improving academic performance where WM deficits are recognised, is to reduce demands on WM in learning activities

Common WM Problems	Strategies
Child forgets the task	<p>Simple steps: Give brief and simple instructions, broken down into separate steps if task is very complex.</p> <p>Check recall of instructions: Check the child can remember the instructions. Repeat instructions if necessary.</p>
Child cannot meet combined processing and storage demands of activities	<p>Reduce complexity at first: For activities involving sentences, reduce sentence length, reduce syntactic complexity (simple active sentence forms are the easiest), and/ or increase familiarity of the vocabulary. For activities involving numbers, reduce the size of numbers, or the number of operations, or the complexity of operations (e.g., initially using addition instead of subtraction, or multiplication instead of division) required in a single equation.</p>
Child loses place in a complex task	<p>Use aids: Use external memory aids such as number lines, acronyms, procedural or stepwise lists.</p> <p>Practice aids first: Due to a tendency by such children not to use aids (perversely, learning to use aids increases WM load too), ensure that the child has plenty of prior practice in the use of the aids prior to using them in more complex task settings.</p> <p>Make progress visible: Find ways of marking for the child their progress in a complex task structure (e.g., ready reckoners on the child's own desk – not just on the board).</p>
Child is unaware of own memory deficits and unsure of support required or how to ask for it	<p>Develop effective strategies for coping: Encourage the child to ask for forgotten information where necessary, provide training in the use of memory aids, reinforce the child to continue with complex tasks, arm them with self-help strategies to promote their development as independent learners.</p>