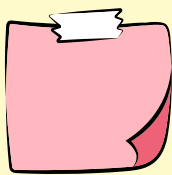


Short-term working memory (Gwm)



Working memory is the ability to hold information in our minds and manipulate it. Students with working memory deficits may struggle with tasks that require them to keep information in mind while also processing or acting on it.

The District Working Memory Kits are considered the current top intervention. 10 lessons over 2-3 weeks. A minimum of 3 lessons a week.

STRATEGY CATEGORY	DESCRIPTION
Explicit Instruction and Modeling	● Provide clear, step-by-step instructions and model the desired behaviours. ● Deliver information in manageable parts ● Break down complex tasks into smaller, manageable steps. ● Use visual aids, checklists, or graphic organizers to support information retention.
Multisensory Approaches	● Incorporate visual, auditory, and kinesthetic elements into lessons. ● Use mnemonic devices, such as rhymes or acronyms, to help students remember information. ● Encourage the use of manipulatives, hands-on activities, and movement to engage multiple senses. ● Utilize experiential learning with meaningful stimuli to assist with encoding ● Provide visual aids like charts and diagrams to help organize information and remember key details ● Offer opportunities to practice short-term working memory skills through memory games and puzzles
Memory Aids and Scaffolding	● Provide access to reference materials, such as word banks, formula sheets, or graphic organizers. ● Use Post-its for questions that cannot be answered immediately ● Offer note-taking templates or allow the use of technology (e.g., voice-to-text, digital organizers) to offload memory demands. ● Gradually fade supports as the student develops more independent strategies. ● Use practice guides, guided study, online review, flashcards, and multisensory materials to facilitate encoding. ● Incorporate colour-coded information, math-facts tables, written schedules, visual schedules, and written reminders
Cognitive and Metacognitive Strategies	● Teach with themes to develop strong neural networks ● Teach students to use rehearsal, chunking, paraphrasing, visual mnemonics and other memory strategies. Encourage self-monitoring and the use of memory aids, such as checklists or reminders. ● Implement semantic rehearsal (creating a sentence using the things to be remembered) ● Repeat and review information often ● Encourage the use of relational strategies (mnemonics) ● Utilize elaborative rehearsal (associating new information with prior knowledge)
Classroom Environment and Accommodations	● Minimize distractions and provide a structured, organized learning environment. ● Allow for frequent breaks, opportunities for movement, and the use of fidget tools. ● Consider seating arrangements that minimize distractions and support attention.

SKILL AREA	IMPACT OF STWM DEFICITS	EVIDENCE-BASED INTERVENTIONS
READING	● Difficulty remembering and applying phonics rules ● Struggling to remember sight words ● Losing track of the plot or characters in a story ● Difficulty comprehending complex texts ● Difficulty holding onto the meaning of a sentence or paragraph	● Use explicit phonics instruction and multisensory approaches to help students remember letter-sound connections. ● Provide visual aids, such as word walls or vocabulary cards, to support the retention of sight words. ● Encourage using graphic organizers or story maps to help students track the plot and characters in a text. ● Offer audiobooks or text-to-speech options to reduce the memory demands of decoding. ● Teach reading comprehension strategies like summarizing and making connection
WRITING	● Trouble organizing thoughts and ideas ● Difficulty remembering spelling and grammar rules ● Struggling to hold the entire sentence or paragraph in mind while writing ● Difficulty revising and editing written work	● Teach organizational strategies, such as outlining or clustering, to help students plan and structure their writing. ● Offer spelling practice through word sorts and spelling games ● Use mnemonic devices or acronyms to help students remember grammar and spelling rules. ● Provide templates or sentence starters to scaffold the writing process and reduce the cognitive load. ● Allow technology, such as speech-to-text or digital graphic organizers, to offload memory demands.
MATH	● Difficulty remembering and applying math facts ● Struggling to hold multiple pieces of information in mind while solving problems ● Losing track of steps in multi-step problems ● Difficulty understanding and applying abstract math concepts	● Incorporate manipulatives, visual models, and concrete examples to support the understanding of math concepts. ● Encourage memory aids, such as multiplication tables or formula sheets, to reduce the need to recall facts and procedures. ● Break down multi-step problems into smaller, more manageable steps, and provide visual cues or checklists to help students keep track of the process. ● Offer opportunities for distributed practice and review to strengthen the retention of math skills and concepts. ● Teach problem-solving strategies like breaking down problems and using visual aids ● Provide opportunities to practice math facts and procedures through flashcards and games
ATTENTION	● Difficulty sustaining attention during tasks ● Easily distracted by internal or external stimuli ● Difficulty filtering out irrelevant information ● Struggling to shift attention between tasks or activities	● Provide explicit instruction and modelling of learning strategies, such as rehearsal, chunking, and self-monitoring. ● Incorporate multisensory approaches that engage multiple modalities (visual, auditory, kinesthetic) to support information encoding and retrieval. ● Offer frequent opportunities for practice, review, and spaced repetition to strengthen memory and automaticity. ● Collaborate with the student to identify personalized accommodations and assistive technologies that can help offset working memory deficits.

Benefits of providing evidence-based interventions

		
Academic Success	Skill Development	Lifelong Implications
WM is a critical skill for reading comprehension and problem-solving. Students struggle to keep up with instruction and fall behind their peers.	Enhanced executive functions (attention, inhibition, cognitive flexibility) Foundation for advanced skills, problem-solving abilities, expressing their thoughts in writing and completing tasks efficiently.	Can affect daily functioning, social interactions, and future career prospects. Prevention of secondary issues (low self-esteem, behavioural problems,, mental health concern).