

**Memory Strategies**

The purpose of this summary is to provide tutors with tools to work effectively with learners who have working memory difficulties.

**You can help your young person/ learner improve working memory by building simple strategies into everyday life.**

* Work on visualisation skills. ...
* Have your young person teach you. ...
* Try games that use visual **memory**. ...
* Play cards. ...
* Encourage active reading. ...
* Chunk information into smaller bites. ...
* Make it multisensory. ...
* Help make connections.

**Seven step process for Improving working memory** *(*[*https://www.mrc-cbu.cam.ac.uk/wp-content/uploads/2013/01/WM-classroom-guide.pdf*](https://www.mrc-cbu.cam.ac.uk/wp-content/uploads/2013/01/WM-classroom-guide.pdf)*)*

**STEP 1:** Recognise Working Memory Failures Tutors are encouraged to look for four common signs of working memory overload: ❯ Incomplete recall, as when a young person begins writing a sentence, then struggles to remember all of the words in the sentence; ❯ Failure to follow instructions; ❯ Place-keeping errors, apparent when a young person keeps losing track of either steps completed or steps yet to completed, and either repeats steps needlessly or constantly has to start over; and ❯ Task abandonment, a common consequence of the previous errors.

**STEP 2**: Monitor the Young person Tutors are encouraged to ask the young person to verbalize their steps in completing tasks the young person often struggles to complete. This can provide important information about where the breakdown is occurring and what supports are likely to work best.

**STEP 3**: Evaluate the Working Demands of Learning Activities Learning tasks likely to exceed a young person’s working memory capacity are identiﬁed and altered so they can be completed successfully. Three features of learning tasks are assessed closely: ❯ Length. In the absence of supports, the longer the task and the more steps necessary for its successful completion, the less likely a young person with poor working memory will be able to complete it successfully. ❯ Unfamiliar or non-meaningful content. When having to hold unfamiliar or non-meaningful information in mind, the young person can’t draw upon previous knowledge as a tool to support working memory. Familiar or meaningful information is much easier to temporarily keep in our mental workspace. ❯ A demanding mental processing activity. Whenever a young person is asked to perform a challenging mental activity while simultaneously holding on to information, working memory capacity becomes an issue.

**STEP 4:** Reduce Working Memory Load The opportunity to repeat a task several times provides a sense of familiarity with the steps necessary to complete the task successfully. For some young person, the task may have to be adapted so that it doesn’t exceed working memory capacity. Learning tasks can be adapted several different ways: by reducing the amount of the material, by increasing the meaningfulness of the material, by simplifying the amount of mental processing, and by restructuring complex tasks.

**STEP 5:** Be Prepared to Repeat Young person with poor working memory beneﬁt from having information repeated to them, and beneﬁt from visual reminders of the steps needed to complete a task successfully. Sometimes an understanding classmate who sits alongside the struggling learner can also help.

**STEP 6**: Encourage the Use of Memory Aids External memory aids can level the academic playing ﬁeld for young person with poor working memory. Memory aids might include visual posters of multiplication tables, visual posters of the correct spelling of commonly used words, and visual posters of academic task directions. Computer software programs can also serve as memory aids, along with a host of other audio and visual technologies.

**STEP 7**: Develop the Young person’s Use of Strategies for Supporting Memory With training and practice young person can learn to master memory, organizational, and other strategies that will serve to make them more independent learners and also help to level their academic playing ﬁeld. Young person is also coached on how use their strengths to compensate for their weaknesses, as is the case when a young person with strong visual spatial skills uses these strengths to recall information not easily retained auditorily, or vice versa. It’s also important that young person learn to advocate for themselves, which includes asking for help when needed.

**What we can do to help**

•Reduce elements that can interfere with working memory.

•Repeat information and make connections to other concepts.

•Present concepts in a variety of different ways, using visual aids that allow encoding.

•Break the information into smaller instructional units; reduce the volume of work (quality vs quantity).

•Provide memory aids and visual supports, including graphic organisers.

•Monitor the learner’s work to head off delays.

•Reduce the number of exercises; focus on the most important ones.

•Activate the learner’s previous knowledge and do frequent reviews.

•Play visual and auditory memory games.

•Present concepts in a variety of forms, using visual supports.

•Allow the learner to use reference tools (posters, dictionaries, lists of procedures).

•Activate the learner’s previous knowledge.

•Present concepts in a variety of forms, using visual aids conducive to coding and correlating.

•Reword instructions, using short sentences.

•Ask the learner to reflect what s/he has just heard; fill in any blanks.

•Allow periods of time for review.

•Provide memory aids and visual supports (posters, dictionaries, lists of procedures).

•Present concepts in a variety of ways.

•Break tasks into smaller instructional units.

•Play visual and auditory memory games.

•Present concepts in a variety of ways, using visual supports.

•Reduce the volume of work.

•Provide memory aids and visual supports (posters, graphic organizers, lists of procedures).

•Personalise reference tools, memory aids, and routines.

•Repeat information in a variety of ways, making connections to other concepts and visual supports.

•Do frequent reviews.

•Ask the learner to reflect the steps in the task back to you.

•Incorporate relevant subject matter using meaningful examples.

•Keep new information brief and direct; repeat it concisely.

•Activate previous knowledge, making connections to other concepts.

•Break instruction down into several steps; be explicit.

•Provide opportunities for the learner to repeat the task, adding details.

•Provide information in a variety of ways (in writing, with visual supports, using modelling).

•Present concepts in a variety of ways, with visual or auditory supports.

•Do frequent reviews.

•Break down instructions and steps.

•Provide written instructions, posters, graphic organizers, etc. as reference tools.

•Provide oral clues for problem-solving, writing out key words.

•Repeat information in a variety of ways (visual, verbal, figure, checklist).

•Develop specific routines and procedures for daily activities.