

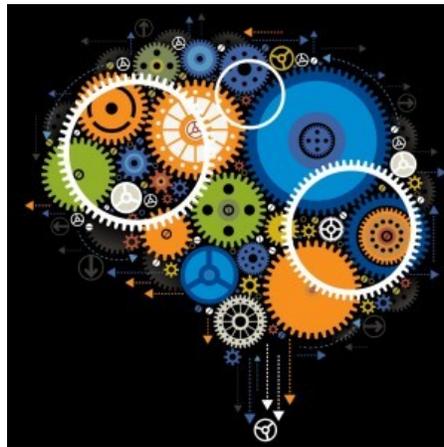
Working memory

More about ... Executive Functions

What is working memory and what do working memory problems look like?

Working memory is the executive function that lets us hold information in mind while we work on it. This lets us put the pieces together, check to make sure we understand it, see how the information connects to other things we know, etc.

Working memory involves managing information when taking it in, storing it and pulling it out of memory. It also includes changing it and connecting it to other similar ideas and concepts.



he learned recently, like facts or words

- forgetting how to do things he's done before
- needing to have directions repeated and repeated
- losing track of what he's doing

When a person has difficulty with working memory, things you'll notice include:

- difficulty remembering things
- forgetting where he put things
- failing to connect new ideas with other things he already

How to improve working memory

There have been some successes in improving working memory using specially-designed computer programs. But our focus is how to improve working memory within spark* and in day-to-day settings. This means

teaching the child strategies to help him use his strengths to support and improve his working memory.

Three major avenues for improving working memory include auditory-verbal, visual and

motor.

Auditory-verbal avenues—these involve any aspect of listening and/or speaking. Examples of auditory-verbal strategies include saying the information over and over to yourself, making

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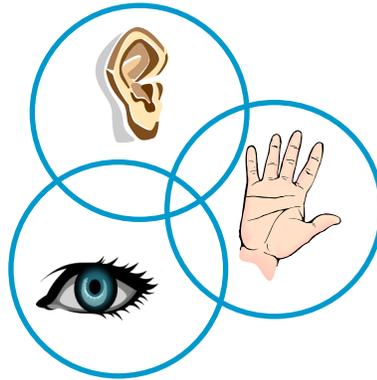
How to improve working memory (cont'd)

up a song or rhyme that includes the key pieces of information (e.g. 30 days hath September).

Visual avenues—consist of seeing or visualizing information. Examples are visualizing the information (making a picture in your brain), writing down or typing key information, drawing or constructing a picture or cartoon, visualizing each piece of information placed in a familiar room, or making a video.

Motor avenues—include physical action or movement of your body or any body parts. Examples are acting out information or a story, dancing or rhythmically moving while rehearsing or recalling the information, manipulating objects that represent the information being learned.

The figure on this page shows that the three avenues as well as connections between them. Dependent on the child, any or all of them can be combined. You



probably noticed that some of the examples already provided do use combinations of avenues. (for example, drawing a picture involves both motor and visual avenues).

Keep in mind that, for some children, combining avenues can make learning more complicated—it may just

add to rather than ease the memory process.

What avenues you use and how many you use will depend on how the child responds. Use your knowledge of the child to decide which avenue to use and start with that one. See how he responds. Does that strategy help him remember information? Does it make no difference? Does it make it more difficult?

Don't worry if the strategy doesn't work, just try something else. Be creative. If the child likes music or animé or dance, try to incorporate them—just so long as they don't distract from improving his working memory.

Remember that different strategies may work better for different kinds of information as well. For example, he might use one strategy for



spark*ing change in children with autism

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