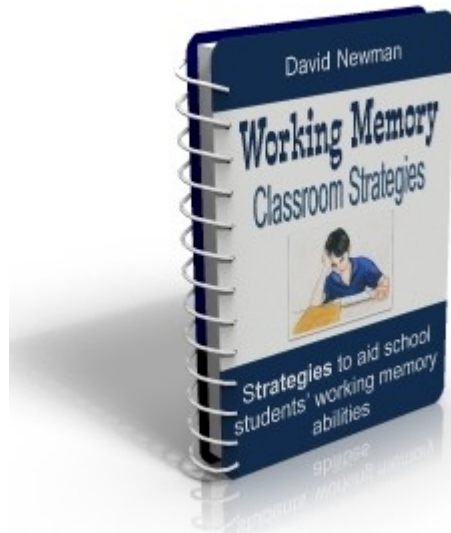


Working Memory Classroom Strategies



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Thank you for taking the time to look at the **Working Memory ebook**.

All of the activities and strategies in the ebook have been designed to be as user friendly as possible. The activities will assist your students to sharpen and improve their ability to retain new information.

I have included a full table of contents and thumbnails of some of the exercises and activities included in the program to give you a sense of the look and feel of the eBook.

Table of Contents

What is working memory?.....	4
Classroom Strategies.....	5
Warning signs.....	5
Watch carefully for tell-tale signs.....	7
Cut back the amount of information to be learned.....	9
Repeat complex instructions.....	12
Student directed strategies.....	13
Language intervention strategies.....	14
Working memory intervention	17
Working memory tips.....	18
References.....	19

Some thumbnails of the program...

Language intervention strategies to assist students' working memory capacity

The following strategies are speech-language pathology methods of supporting children with receptive language impairment. School-age students with language impairment have difficulty with working memory tasks that rely on storage and processing newly learnt information or instructions. Therefore it makes good practical sense to support children with working memory problems by using techniques that are the speech-language pathologist's traditional domain.

Language Support Strategies

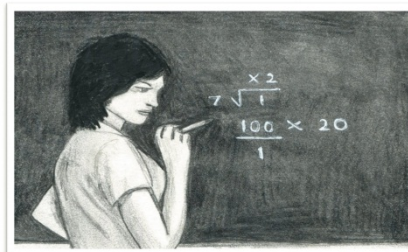
Preparatory Set: Preparatory sets assist students in learning new information by building background knowledge about a concept. Preparatory sets can be particularly useful for students with poor working memory because they focus students on particular themes or words. With preparatory sets, students have an expectation of what to look for or listen to in any new information required to learn.



Be alert to memory problems when introducing unfamiliar or decontextualized information

Words and sentences that are low in meaning to students or are unfamiliar, place a heavy demand on students when they attempt to learn new information. Working memory failure quickly occurs if the student doesn't already have solid background information about a subject that is introduced as a classroom discussion. In this instance, a student would be obligated to rely on their working memory to rapidly store and manipulate any new information, which of course would be a heavy burden for a child with limited memory capacity.

For instance, a child may be required to process unfamiliar information, such as, *'Before the Navy could rule the Caribbean Sea, they had to first capture Port Royal from the buccaneers.'* A child with working memory difficulty may be overwhelmed by the complexity of the sentence and also the language such as, buccaneer, Port Royal, etc.



Excerpts from the eBook and Exercises...

Working Memory Intervention *Example*

The class teacher's instructions to students

The instructions the teacher delivers here are entirely verbal, with no written material to support the information. **Class Teacher:** *'Today we are going to learn about story writing. To be a good story writer requires that you construct a story following several principles. You need to have a clear beginning, middle and end. You also need to devote attention to the setting, character motivation, and a problem a main character has to overcome.'*

I want you to write a story about a happy event in your own life that you remember vividly. Before you begin to think about a happy story though, I want you to quickly write down these main headings, because we are going to spend a bit of time on each. The main headings are: setting, beginning, middle and end, character and story sequence.'

As you can see, there is a significant amount of information for the grade 5 students to process in this example. The children with good working memories and strong receptive language skills may have a little difficulty

coping with the amount of information and keep up with the teacher's thoughts. They may even be actively writing down the key headings as instructed by the class teacher.

However the children with poor working memory will quickly flounder with the amount of information they have to process. Much of the teacher's instructions would be lost to them. If we analyse what the teacher was doing it may provide some insight into how to better scaffold the information for students with working memory difficulties.

First, there is too much information to process at once. Students with working memory difficulties will not be able to keep up with the teacher.

Second, the sentences are too complex. Many of the sentences contain relative clauses which may be too difficult to process for students with poor working memory.

Third, the instructions are poorly organized and the teacher hasn't really provided enough scaffolding before launching into getting students to write stories based on their own life experiences. The teacher also expects the students to write down the main headings without providing support such as written instructions on a whiteboard or printed material for students to follow.

Word Sequence – physical attributes

Instructions: I'm going to read out a list of objects to you. I want you to listen carefully and then say them in order from **coldest** to **warmest**. So for instance if I was to say *hot potato, ice cube, banana*, you would say, *ice cube, banana, hot potato*.

Coldest to Warmest



- | | | |
|---------------------|---------------|----------------------|
| a. Sahara Desert | Arctic | England |
| b. erupting volcano | Siberia | beach in Fiji |
| c. Summer | Winter | Spring |
| d. apple | hot soup | icy pole |
| e. ice cube | chilli | tomato |
| f. jam | hot donut | ice-cream |
| g. sauna | ice rink | concert hall |
| h. mountain top | rainforest | desert |
| i. cold milk | hot tea | tap water |
| j. backyard pool | frozen lake | heated swimming pool |
| k. snow skiing | water skiing | desert trek |
| l. hot springs | sea in Winter | lagoon |