

Promoting the expertise of schools to meet the needs of learners with specific learning difficulties through advisory work, training and exemplar teaching

Memory and Organisation

Working Memory

Working memory is the ability to retain information in short term (temporary) storage while simultaneously processing incoming information and retrieving information from long term storage.

If a child is distracted or interrupted while using working memory, the process is lost and the child must start the task from the beginning again - s/he cannot resume the task from the point where s/he was interrupted. (See Gathercole and Alloway, 2008).

Children with high working memory scores tend to show good reading skills and score well on tests of mathematical ability. Children with poor working memory scores tend to perform at below average levels on these same measures of attainment.

In a class of 30 children aged around 7, a teacher can expect a six year range in working memory capacity. For example, three children will have the working memory capacity of a 4 year old and three children will have working memory capacity of a 10 year old. These differences will have a significant impact on learning.

Short Term Memory

Short term memory refers to the storage of information for a few seconds without having to manipulate it in any way.

Long Term Memory

Long term memory is the permanent storage of information in the brain. Retrieval of information from long term memory is aided by meaning - unfamiliar vocabulary or facts learned without understanding will be forgotten very easily because they have no associated meaning.

Poor organisational skills are often a symptom of weak memory.

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Checklist of possible memory difficulties in the classroom

Indicator	Rarely	Sometimes	Frequently
Is easily distracted when working on or doing something that is not highly interesting			
Has trouble waiting his/her turn, for example in a conversation or when waiting in line to get help			
Struggles with reading comprehension and has to read through texts repeatedly to understand			
Struggles with problem solving that requires holding information in mind, for example mental maths calculations			
Is inconsistent in remembering maths facts			
Struggles with completing tasks, especially multiple step tasks			
Has difficulty remembering long instructions given in several steps, for example following recipes, directions or school/work assignments			
Struggles to understand the context in a story or a conversation			
Has difficulties when planning and organising something that needs to be done in separate steps e.g. writing			
Has difficulty staying focused during cognitively demanding tasks, but attends well when cognitive demands are minimal			
Has difficulty integrating new information with prior knowledge			
When called on, forgets what he/she was planning to say			
Has difficulty taking notes and listening at the same time			

Other indicators of memory and organisational difficulties: