WORKING MEMORY IN THE CLASSROOM (W.M.)

* Working Memory: memory system that provides a kind of mental storing information for everyday activities.
  + specialised stores for verbal and visuo-spatial material.
  + information is easily lost through distraction or overload.
* Poor Working Memory skills are common in childhood and impact the learning process.
* Profiles of behaviour or achievements. ----> test show that there is a slightly greater proportion of men with WM problems than women.
* 10% of children are in risk of poor educational achievements.

Children with poor Working Memory skills

* They are slow at learning in reading, maths and science.
* They are unable to meet the memory demands of structured activities.
* The information is lost, so it is not possible for the child to proceed with the activity.
  + Guessing or abandoning the task
  + Missed learning opportunities --> learning is delayed.
* Rarely described as having memory problems --> attentional problems.

ZONING OUT🡪 the child cannot keep in mind

the information needed to guide an ongoing

mental activity.

* Normal social relationships.
* Reserved in group activities. Poor Working
* Difficulties on following instructions. Memory profile.
* Problems at storage and processing.

Assessing Working Memory Problems

* Children can be indirectly assessed, by children’s classroom behaviour.
* Scales for measuring this behaviour.
* Backward digit span --> to storage digits and mentally reverse it.
  + Attentional component of W.M.
  + Low levels --> likelihood to have poor W.M.
* Three subtests
  + Forward digit recall.
  + Backward digit recall.
  + Letter-number sequencing.
* They are almost exclusively verbal in nature and use digits as memory items.
* Verbal memory --> Digit stimuli

--> Non-digit stimuli

* Non-verbal memory --> spatial patterns

--> Movement sequences

* AWMA🡪 visuo-spatial complex memory tests

--> working memory profile.

* Knowing these profiles helps to define which learning strategy would be effective for individual children.

Providing Learning Support

* Classroom-based support
  + To avoid working memory overload in structured activities--> cognitive, theory and practice.
  + Teachers learn how to recognise task failures, monitor, evaluate working memory loads and reduce when memory issues arise. Re-present the information and encourage the use of strategies with children.

Memory loss may masquerade

as failures of attention.

* Robonemo
  + The child works his memory capacity 35 minutes a day for six weeks.
  + Inattentive behaviours are reduced.
* Cognitive theory is important not only for experimental laboratory, but also for practical application in vital contexts such as the classroom.
* Increase the meaningfulness and familiarity of the material.
* Simplify mental process.
* Restructure complex tasks.