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without walls

The Role of Memory in School Success – Session Two



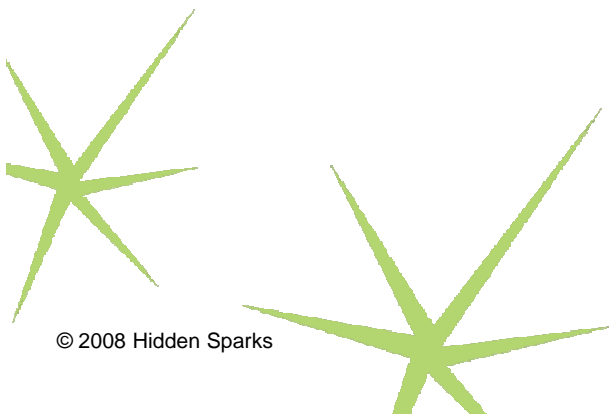
with Claire Wurtzel
November 25, 2008



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Conference Call Etiquette

- Remember to mute your phone by pressing *1.
- Press *1 again, when you would like to speak, this will un-mute your phone.
- Do not use your phone HOLD or mute button. If you do, your music will be broadcast to all of us on the call.



Our Guest: Claire Wurtzel

Claire Wurtzel is the Director of Faculty Development for the Churchill School and Center in New York, working within and beyond the school to develop the Churchill Center for professional development. Prior to this position, Ms. Wurtzel was the Director of Faculty Development for the New York City *Schools Attuned* initiative for *All Kinds of Minds*, an institute co-founded in by Dr. Mel Levine and Charles Schwab to help educators work effectively with struggling learners. In her capacity as Director, Ms. Wurtzel oversaw Schools Attuned courses, mentor training and facilitator training for over 400 New York City schools.

Ms Wurtzel is **also one of two educational directors for Hidden Sparks**, providing training, supervision and ongoing mentoring to the Hidden Sparks teams of coaches, principals and Internal Coaches in twenty-eight *yeshivot*. A long-standing interest of Ms. Wurtzel has been to provide professional development workshops for Jewish Day School educators and has worked to adapt the Schools Attuned professional development program for Jewish day schools.



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Today's Goals

The goals of this session:

1. To understand the demands that school places on students' active working memory.
2. To understand the roles of consolidation and access of information in long term memory.
3. To increase educators' repertoire of strategies to support students who struggle with some aspect of memory.

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Review of Last Week's Session

A balance between understanding and remembering.

Assessments that check for understanding and not only memory.

Problem based situations for students to solve is a good way to check for understanding.

Students fare best when there is a match between their memory abilities and the curriculum demands.

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Review the Homework

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Types of Memory and Different Durations of Memory

Memory areas are spread throughout the brain. Our memory for people's faces is stored in a different location than our memory for names and nouns.

What are the implications for the fact that there are different format preferences and different memory pathways???

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Memory has 3 basic jobs:

1. To get information and ideas into memory-either short term or for ever.
2. To find things once they are stored in memory.
3. To keep things together while working on them.

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Memory components have different durations.

Short Term Memory:

- Lasts 3-7 seconds unless one does something to extend the time.
- Strategies participants used to remember the 7 words:
 - Chunking the words in groups visually.
 - Making a picture in your mind.
 - Repeating the words over and over.
 - Creating a story-elaborating.
 - Memorizing the first letter of each word-reducing.
 - Developing a rhythm.

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Active Working Memory

Mental Math Activity:

I will give you a problem to solve in your head. Please don't write anything down. Do the problem in your head.

Describe what you did to solve the problem.

You had to hold in place various parts of the answer long enough to complete the task.

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Active Working Memory Struggles

To do well you had to recall the number facts and the meaning of factor and product.

Cognitive work space is like the RAM access on a computer.

If cognitive workspace is taken up struggling with the lower level tasks there's no time for higher- level thinking.

This makes students anxious, which further reduces their active working memory capacity.

Active working memory is a place where ideas are stored while they are being developed.

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Some clues that a student has active working memory problems:

- They may forget the first syllable while decoding the third syllable in a word.
- They can't summarize what they heard.
- They have trouble remembering what they read in the first chapter when reading the second.
- Students who know the content, but don't do well on compare and contrast tasks.
- Students who spell better in isolation than embedded in a story.
- Students who seem to know more than their test indicates.
- Students who forget the question while searching for the answer.
- They can't hold on to the grammar, spelling, ideas, syntax and handwriting all at the same time.
- They lose their place in the middle of a math problem.
- They may prefer manuscript to cursive writing.



What are some strategies we use to support these children?

- Think about the objective of the lesson and allow students to use tools to lighten the memory load.
- Chunking- reduce the task that is supposed to be completed in one session into a few different tasks and stages.
- Mnemonic aids help students who understand the math concepts, but can't remember the order of operations such as DMSB.

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Different Active Working Memory Demands

- **Moving from short term memory to long term memory almost simultaneously.**
- An example is remembering the question as you search for the answer.
- **Another is proximal-distal memory. Remembering what your goal is if you get distracted along the way.**
- An example is when you call someone and while waiting for the person to answer you get involved in another project.
- **What happens when the person answers the phone?**



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Long Term Memory:

- Long- term memory has endless capacity and the greatest duration.
We consolidate what we need in long term memory.
- Students have to consolidate information from 5 or 6 unrelated subjects daily.
One subject may wipe out the next.
- It would be easier if subjects were related and shared some common ideas and vocabulary.

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Accessing Long Term Memory

Efficient Storage for Rapid Access

- Last week I showed the visual of two closets- the messy one and the very neat organized closet.
- Some students are very efficient and their memory storage is like the neat organized closet. They are then able to access the ideas very rapidly.



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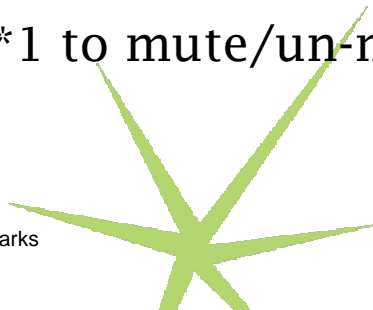


Long Term Memory For Patterns and Rules

- **Some students see patterns and rules even when there are superficial differences.**
 - They see that a word problem about horses and ponies and know it's the same kind of problem they had about dogs and cats.
 - They see patterns in history or art.
 - They remember rules and can retrieve them easily.
- A good teaching technique is to have students identify the pattern or rule of a problem. They don't even solve for an answer.



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Long Term Memory for Associations

- Some students make good associations and categories to file facts effectively.
 - Names and faces
 - Sounds and their written symbols
 - History facts and their dates
- How can we help them if they have trouble making associations?

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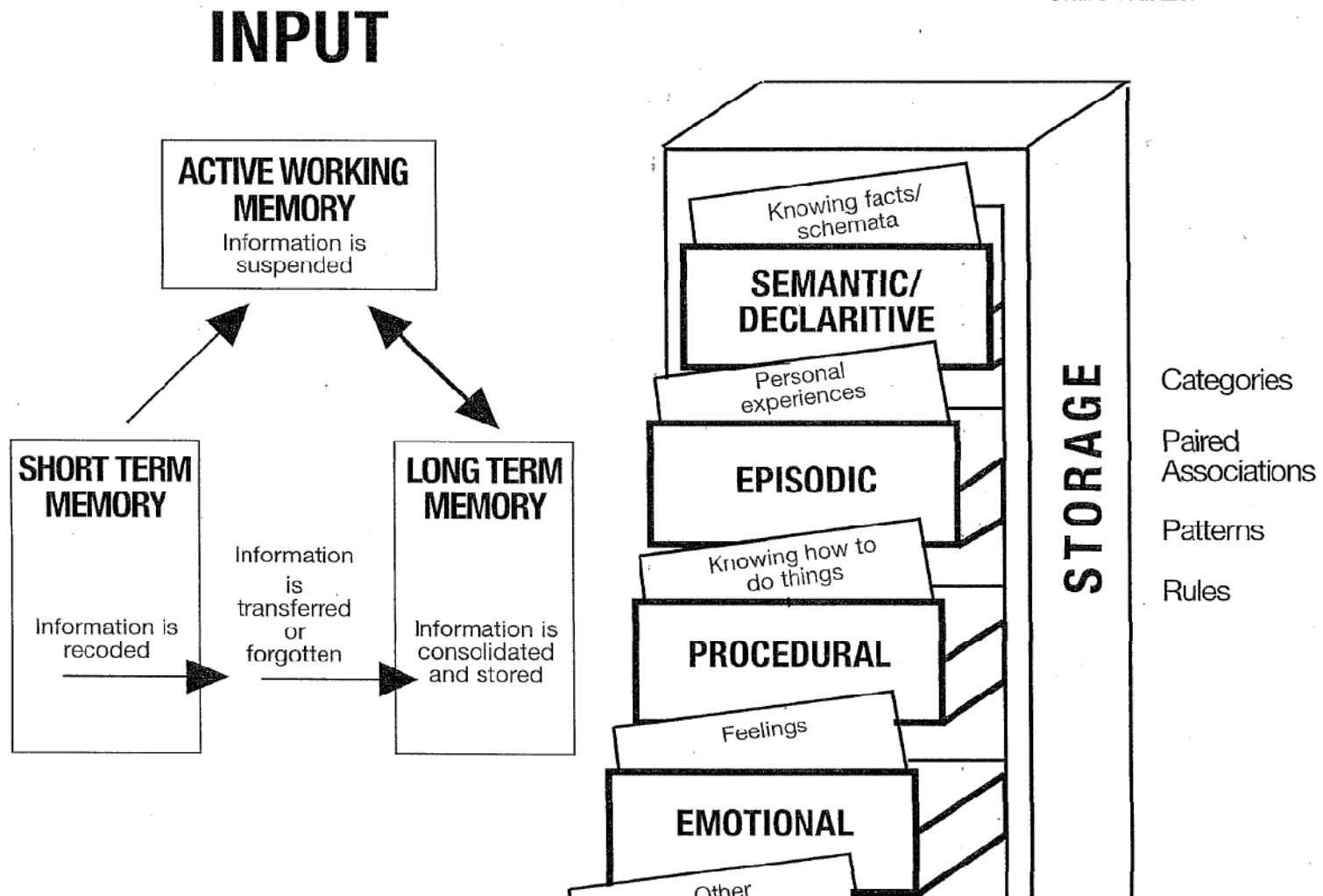


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Input

Claire Wurtzel



Types of Long Term Memory

Semantic/ Declarative Memory- facts and general information we have learned.

Help expand students' semantic networks of words by teaching- antonyms and synonyms.



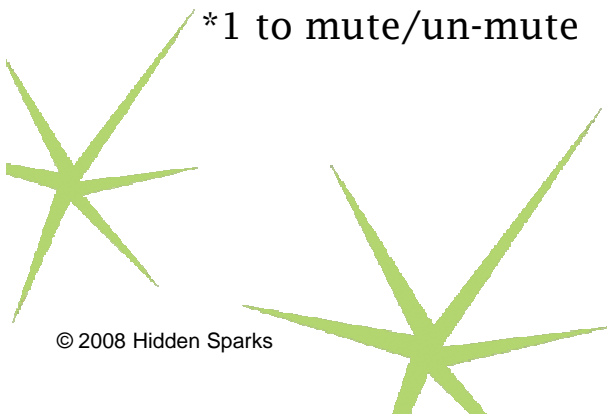
Types of Long Term Memory

Episodic memory- people and events in your life.

Studies show students who take field trips that are deeply connected to the concepts they are learning, not only learn the content better, but have multiple access points to retrieve the ideas.

We can't rush through the content in order to **cover** it the material. We need to spend time **uncovering** and discovering the content.

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Types of Long Term Memory

Procedural- is the memory for how to do things. It often has a motor aspect to it. Like riding a bicycle, tying a shoelace, reducing a fraction.



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Types of Long Term Memory

Emotional memory-Not many psychology texts discuss Emotional memory, yet it is very powerful and stays with a person the longest.

Everyone remembers where they were when Kennedy was shot or where they were when the planes crashed into the WTC on 9/11.

Addiction studies show that addicts don't forget the euphoria they get from being high. It may be one reason why it's so hard to quit.

What are the implications for the classroom that there are so many memory pathways?

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General Memory Strategies for the Whole Class

- Studies show that students remember best what happens at the beginning and the end of the lesson. Think about the timing of the most important parts on lesson.
- “The art of memory is the art of attention.” This quote from Samuel Johnson highlights the need to get the student’s attention.
- Dr. Levine, founder of All Kinds of Minds writes about the attention-retention -dimension.
- Underline or color code to visually frame important ideas.
- Color code items in the room and students' folders.
- Develop concept maps when teaching a new concept.
- Shift mode of instruction- auditory, visual, kinesthetic.

General Memory Strategies for the Class - Cont.

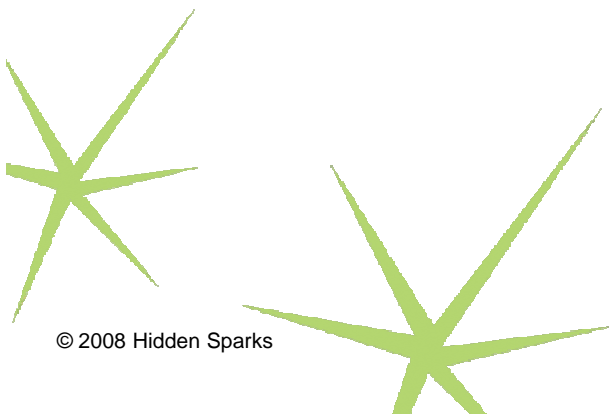
- Use more wait time so students have time to absorb information and file it effectively.
- Be meta-cognitive- ask students how this new information relates to what they already know.
- Use check lists to support active working memory.
- Provide written guidelines on color coded charts for multi-step procedures.
- Ask students to organize the information in ways that match their own memory strengths.
- Teach general self monitoring strategies such as stopping after each paragraph to test for comprehension. Teach them to record or use highlighters for important ideas to remember.



Upcoming Hidden Sparks Without Walls Sessions

Language, Learning and Literacy – Dec. 3, Dec. 10
with Claire Wurtzel

Course on Attention – Dec. 9, Dec. 16
with Naomi Weiss



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Contacting Hidden Sparks

Hidden Sparks is a non-profit fund whose purpose is to help children with learning differences reach their full potential in school and life. Hidden Sparks develops and supports professional development programs for Jewish day schools to help increase understanding and support for teaching to diverse learners.

Guided by a philosophy that by helping schools meet the needs of children with learning and behavioral differences, ultimately all students will benefit. Hidden Sparks' programs combine professional development in learning and positive behavioral support, guided classroom observation and one on one coaching. The Hidden Sparks model and program is currently in 21 Jewish Day Schools/Yeshivot in New York and 7 in Boston, through a partnership with Gateways: Access to Jewish Education.

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