

# MEMORY IMPROVEMENT

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Memory- persistence of learning  
over time through the storage and  
retrieval of information



# Memory Metaphors



- Storage Container
- Something we can see, touch, sense
- Cave (Augustine)
- Wax Tablet (Plato/Aristotle)
- Empty Cabinet (Jon Locke)
- Aviary (Plato)
- Woven cloth (Descartes)

# SEMANTIC MEMORY

Knowing things such as how to tell time or who was the twenty-first president. It is world knowledge that one remembers in the absence of any circumstances about learning it.

# EPIODIC MEMORY

Represent episodes in our personal history, such as meeting a new friend, or the time we fell off a bicycle and broke an arm. It is one's personal, biographical memory stored by temporally dated episodes and events.

# AUTOBIOGRAPHICAL MEMORY

Memory across the lifespan for specific, self-related information.

- Favorite childhood birthday party
- Song on the radio during college

# Memory

- Short-Term Memory
  - activated memory that holds a few items briefly (about 30 seconds)
  - look up a phone number, then quickly dial before the information is forgotten

# Short-term Memory Assessment



You are going to see a slide with a series of numbers.  
After each slide, you will be asked to recall the number correctly. Please respond as accurately as possible until I tell you to stop.

982



2831



74139



497215



5183926



19563472



362519748



6154983287

# How did you do?

- 982
- 2831
- 74139
- 497215
- 5183926 \*
- 19563472
- 362519748
- 6154983287

**STM Capacity**  
**= 7 +/- 2 units**

X I B M C I A F B I C B S M T V

X

I B M

C I A

F B I

C B S

M T V

# STM Assessment #2



You are going to see a list of words. At the end of the list, I'll ask you to recall as many words as you can. While the words appear on the screen, I want you to repeat the word 'pickles' out loud over and over again.



skunk



mumps



# Greece



# Maine



*zinc*

Please write down every  
word from the list that you  
remember.



gorilla



leprosy



# Mexico



Wyoming



calcium

Please write down every  
word from the list that you  
remember.



hippopotamus



# tuberculosis



# Uzbekistan



# Louisiana



aluminum

Please write down every  
word from the list that you  
remember.

# How did you do?



skunk

gorilla

hippopotamus

mumps

leprosy

tuberculosis

Greece

Mexico

Uzbekistan

Maine

Wyoming

Louisiana

Zinc

calcium

aluminum

# Is memory improvement special?

<http://www.youtube.com/watch?v=3dJpwcYtUk>

<http://www.youtube.com/watch?v=6vsYCSmBcM0&feature=related>

Start 2:37 to 6:00 mins

# Basic memory improvements:

## Elaboration



- Organize information into something meaningful
- Practice using Mnemonics
- Rhyming
- Write things down
- Use Emotions & Senses

# Elaboration



- *Basic principle*

- Give meaning to meaningless information

- Need to learn Prof. Prlwitzkowski

- Break up into words that sound similar  
(Pearl with cow ski)

- Image

- Cow skiing down hill with pearl necklace



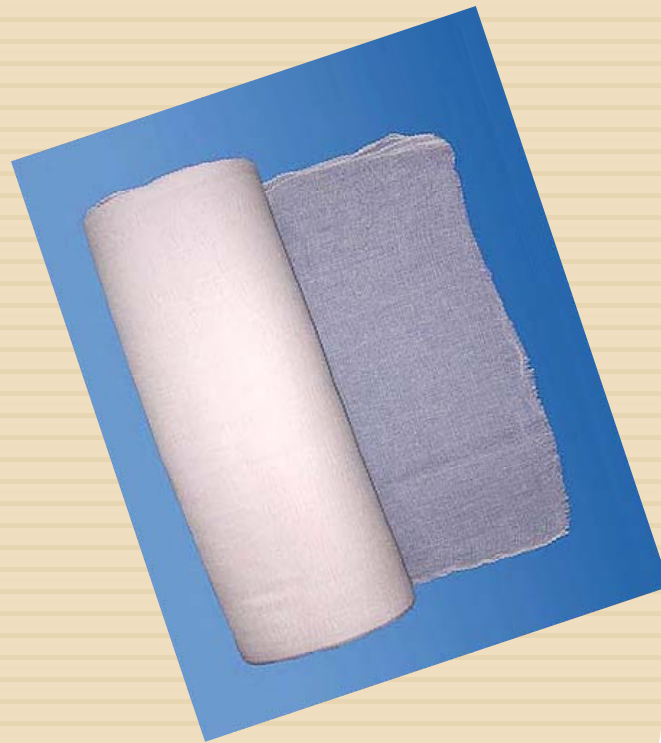
Prof. Prlwitzkowski



Karla Lassonde

When someone  
get's hurt, a  
person needs  
gauze, and the  
people  
surrounding them  
say "oh no"

Gauze-Oh



Trisha Gasow

Have you ever  
seen a zebra  
jump up in the air,  
wearing a fur  
coat?

Z-UP-FUR



Sarah Zupfur

# Remembering Names Activity:



- Individually make an elaboration of your last name
- Get into groups of 2 or 3 people and teach your elaboration to them
- After each group member has presented their elaboration, test everyone on their ability to remember

# Standard Memory Improvement: Association



- Association
  - *Basic principle-* Connect newly learned information must be meaningfully related to thing to which it corresponds
- *Example :*
  - Story Method

# Repeat the following word list



Shoe

Hammock

Airplane

Hotdog

Window

Tree

Clock

Paperclip

Soda

Brain

Repeat the following word list & visualize the words



Elephant

Hat



Hammer

Monkey

Comb



Lake

Wallet

Cake

Key

Apple



# Other Techniques

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- Rhymes

I before E except after C  
or when sounded "A"  
as in neighbor or  
weigh

30 days have  
September, April June  
and November

- Catch Phrases

Spring Forward, Fall  
Back

- Verbal Mnemonics

# Verbal Mnemonics

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- Treble Clef **F A C E** (spaces) **Every Good Boy Does Fine** (lines)
- HOMES. (Huron, Ontario, Michigan, Erie, Superior)
- ROY G. BIV (red, orange, yellow, green, blue, indigo, violet)
- Kingdom, Phylum, Class, Order, Family, Genus, Speices. (K)ings (P)refer (C)cola (O)ver,(F)lavored (G)rape (S)oda

# Verbal Mnemonics



□ Parentheses, Exponents, Multiply/Divide, Add/Subtract. I use (P)lease (E)xcuse (M)y (D)ear (A)unt (S)ally

□ Limitations?

1. Have to come up with them
2. Response competition

# Quick Tips



- Create multiple retrieval cues
- Distribute learning episodes over time
- Understand *Meta-memory*
- Be motivated and interested

Be careful what you wish for!



Reasonably bad memory may  
be secret to creativity and  
happiness