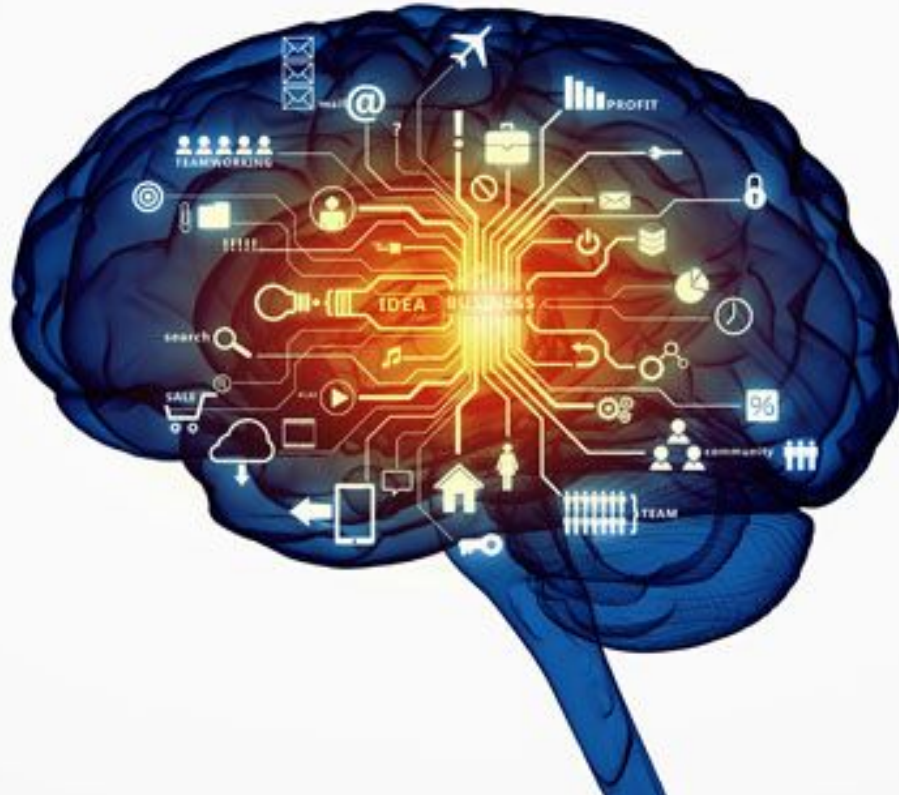


# Memory



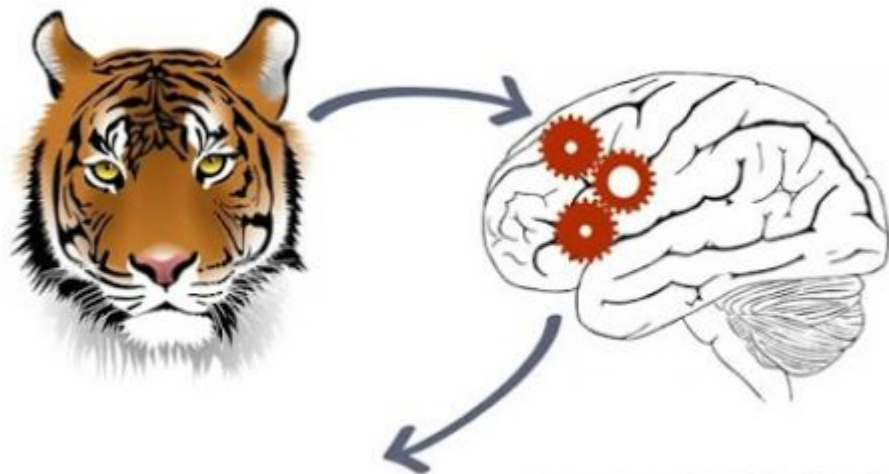
*Understanding is memory  
in disguise.*



DANIEL WILLINGHAM

WHY DON'T STUDENTS LIKE SCHOOL? 2009

# Long term memory

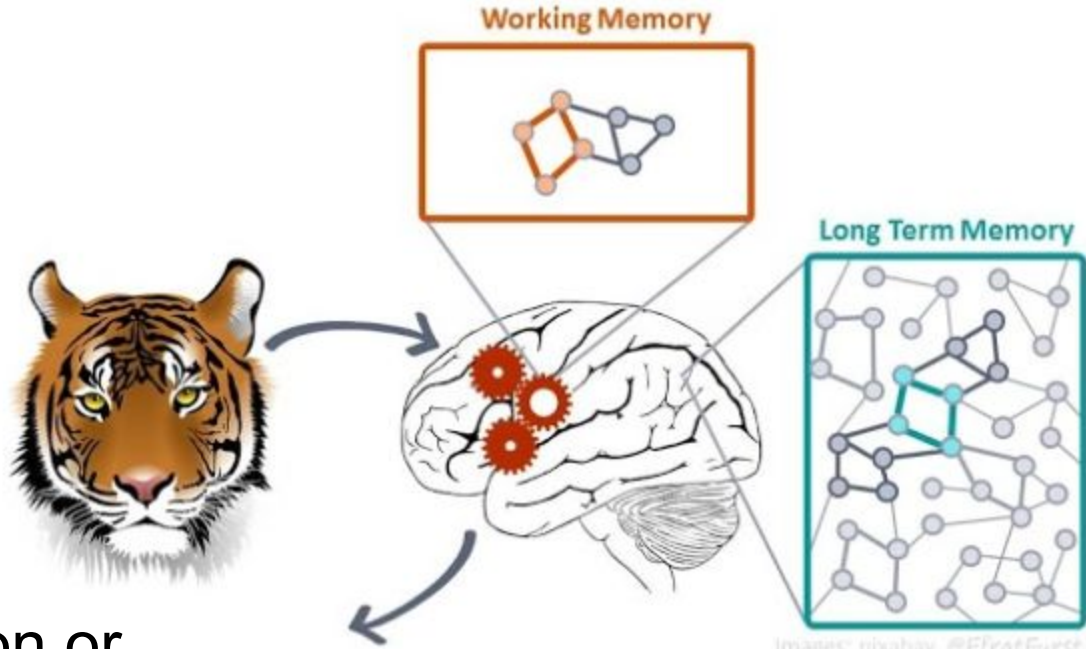


Images: pixabay @EfratFurst



UNDERSTANDING UNDERSTANDING, 2018

EFRAT FURST



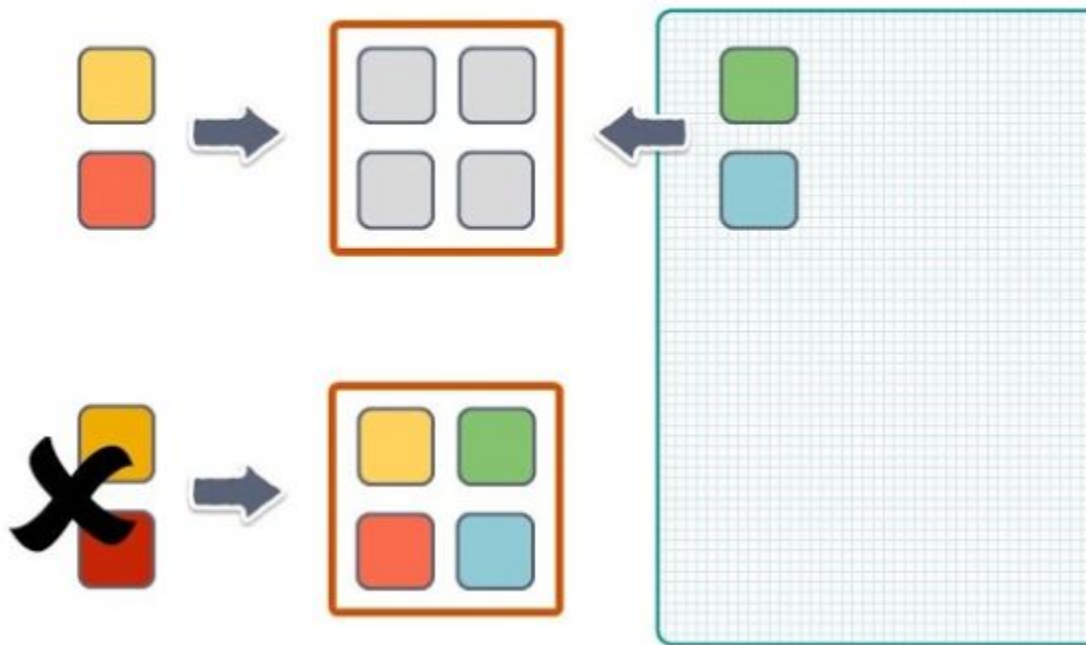
Images: pixabay @EfratFurst

decision or  
action

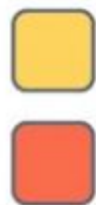
Environment

Working Memory

Long Term Memory



Environment

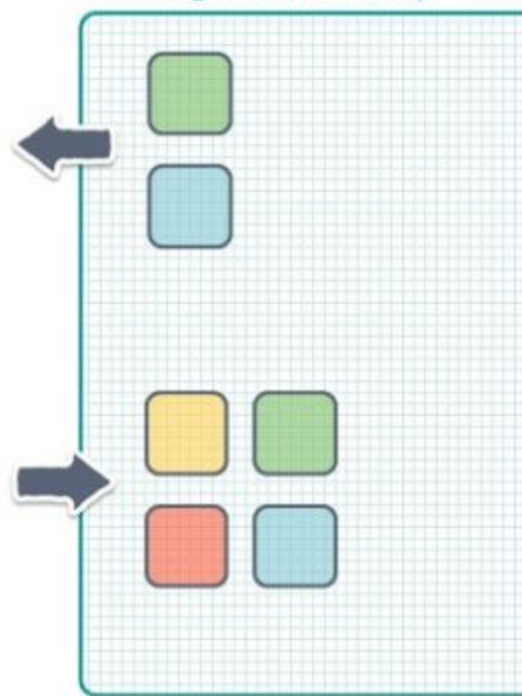


Working Memory



Deep Processing

Long Term Memory



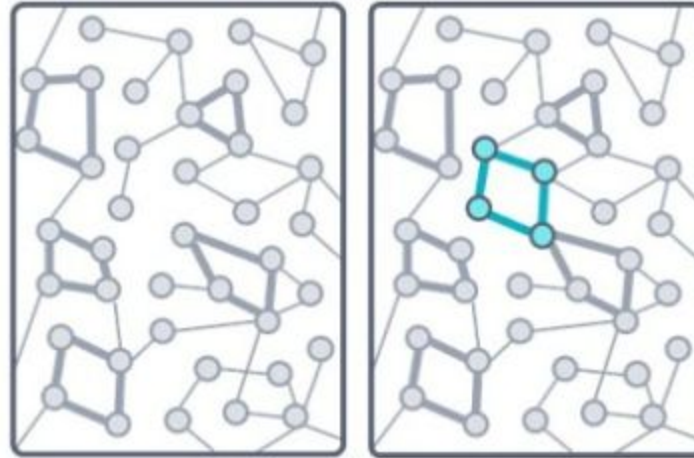
*Knowledge and understanding can be viewed as components of the same thing: knowledge is the collections of concepts represented in the brain, and understanding is the connections that they form between them.*



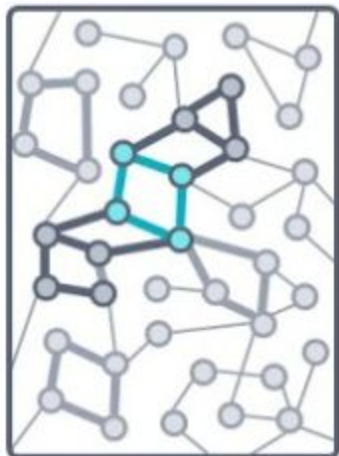
EFRAT FURST

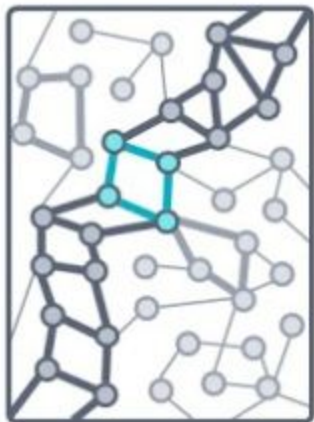
UNDERSTANDING UNDERSTANDING, 2018

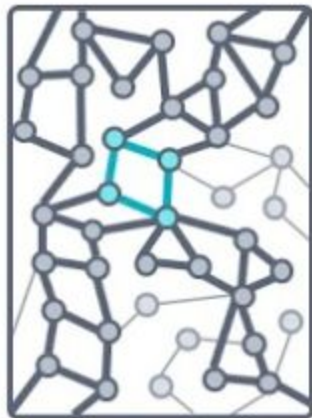
# Knowing, Understanding, Using and Mastering

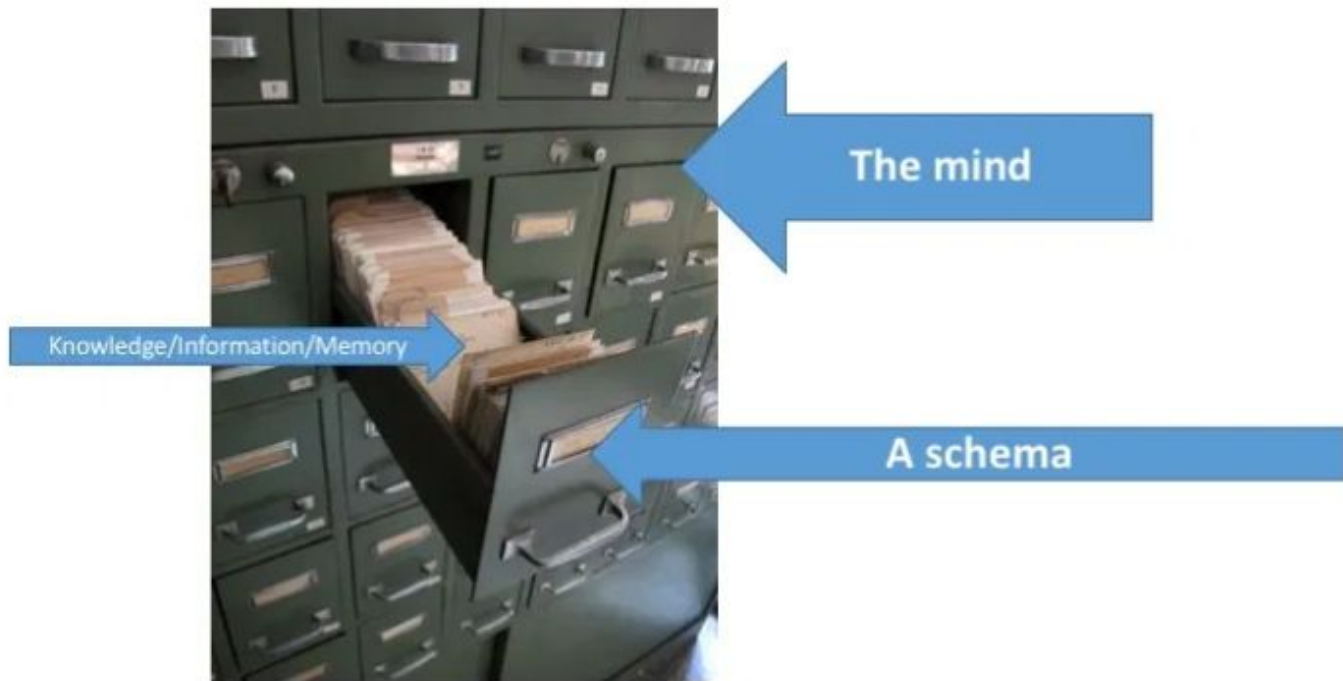




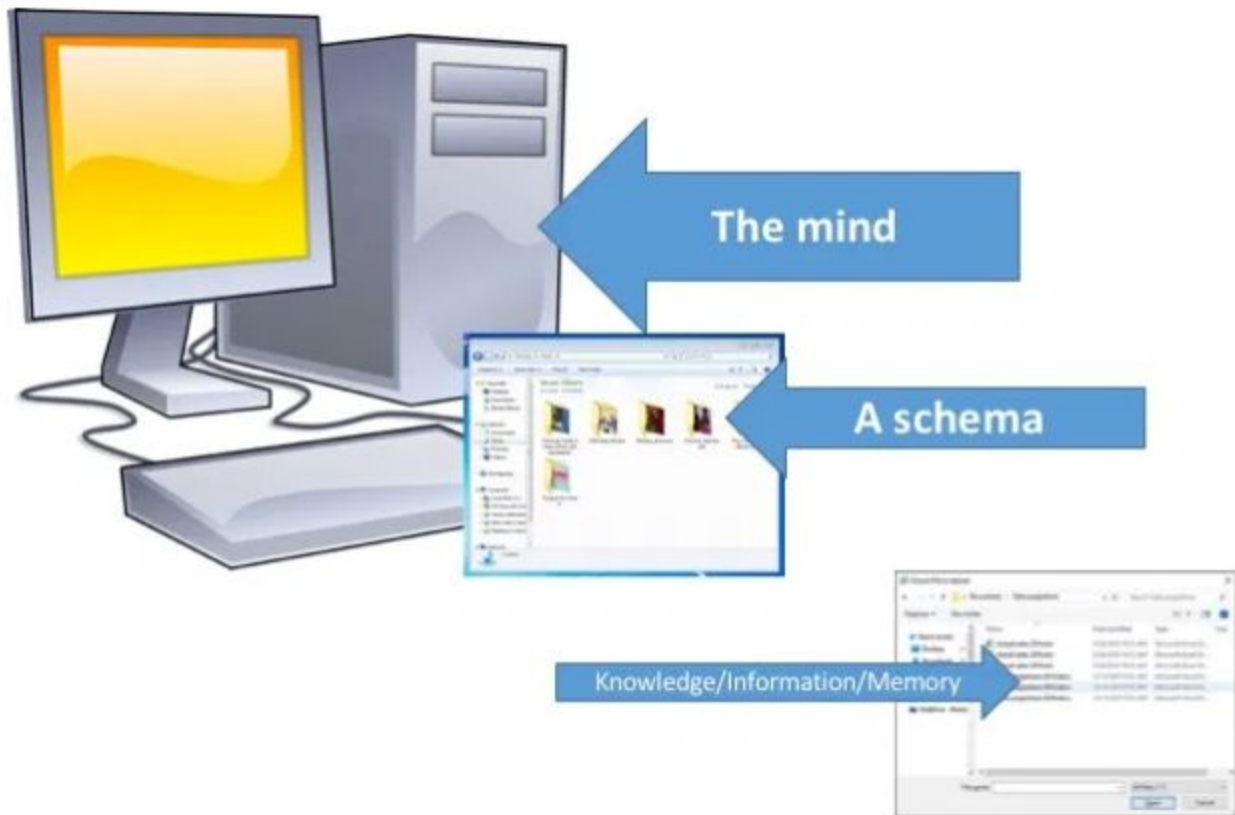








Like a filing cabinet keeps information categorized, schema theory claims that our mind organizes our knowledge and memories to make them easily accessible.













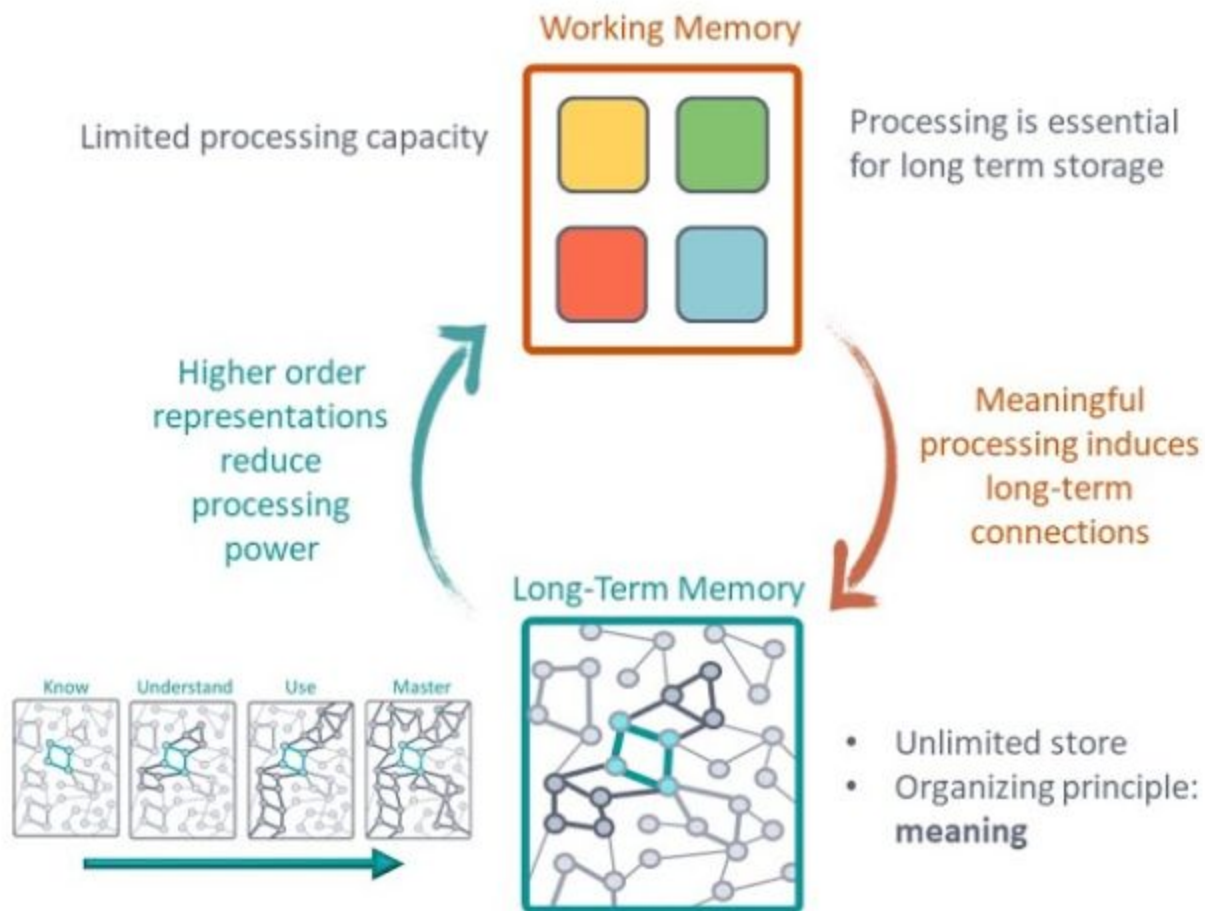
If you think of your mind like a computer, a schema is a folder and individual bits of knowledge and memories are the files.



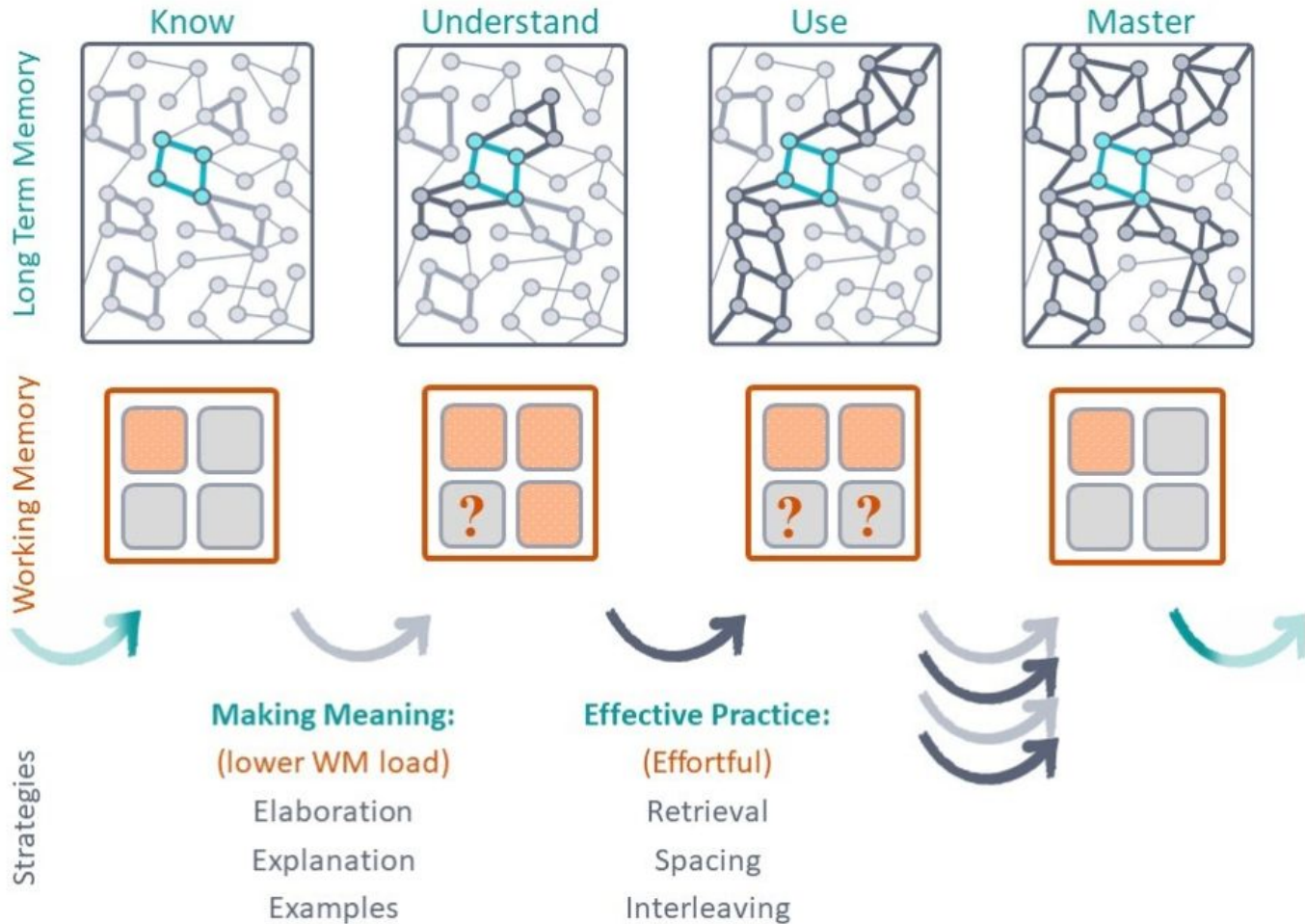
## What are the five SOLO levels of understanding?

SOLO shows students' learning outcomes at these five levels:

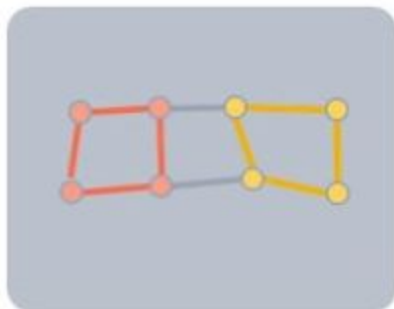
Prestructural level			The student has not yet grasped the idea and/or needs help to start.
<b>Surface knowledge (loose ideas)</b>			
Unistructural level			The student has one relevant idea.
Multistructural level			The student has several relevant ideas.
<b>Deep knowledge (connected ideas)</b>			
Relational level			The student has related (or linked or integrated) the ideas.
<b>Conceptual or constructed knowledge (extended ideas)</b>			
Extended abstract level			The student has taken the related ideas and extended them.





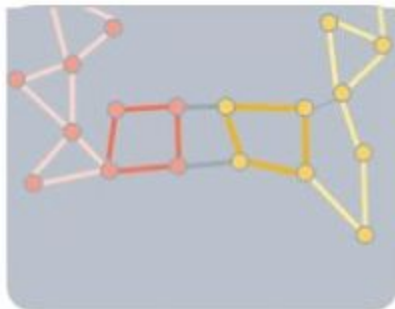


What?



**Meaningful Connections**

How?



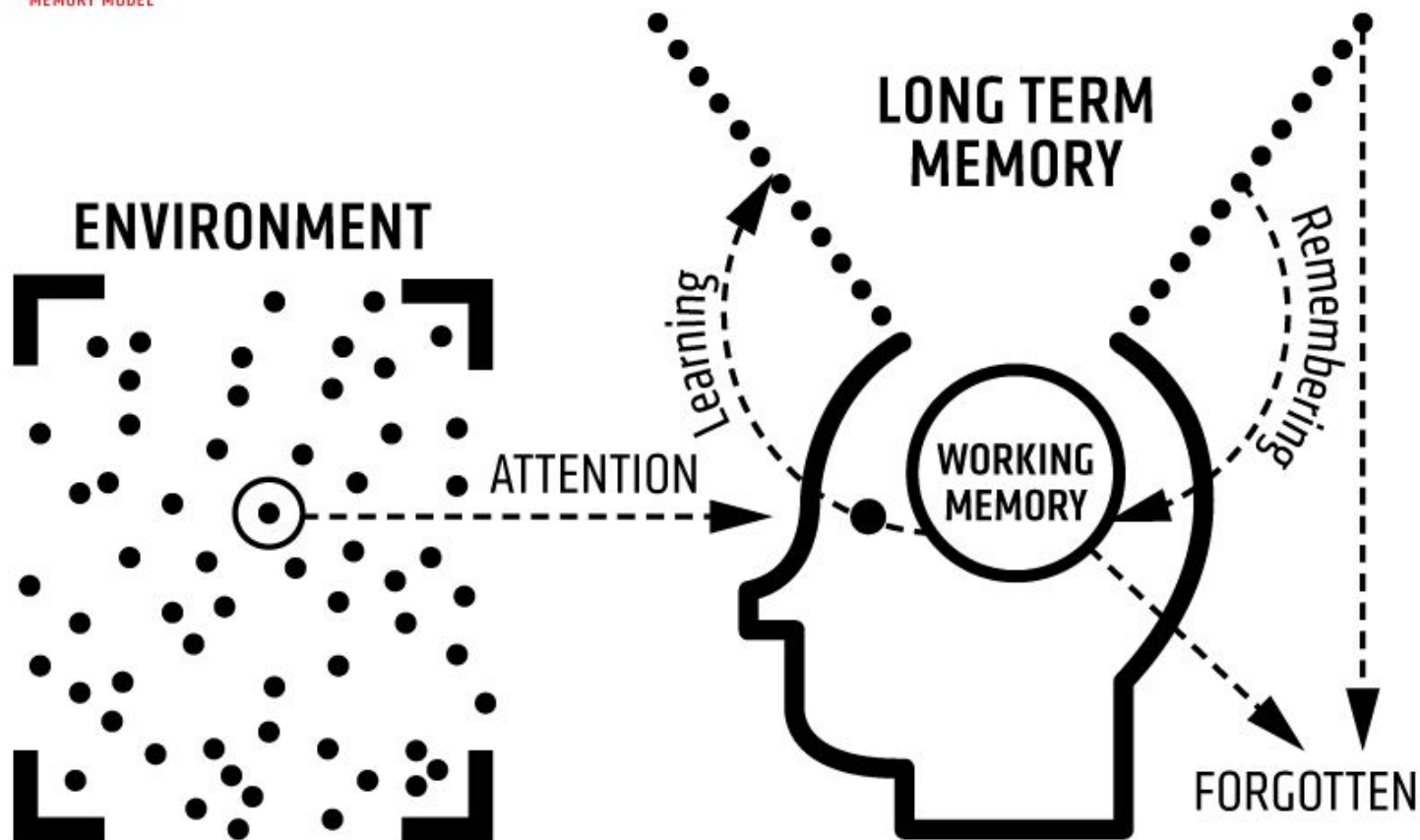
**Retrieval Practice**

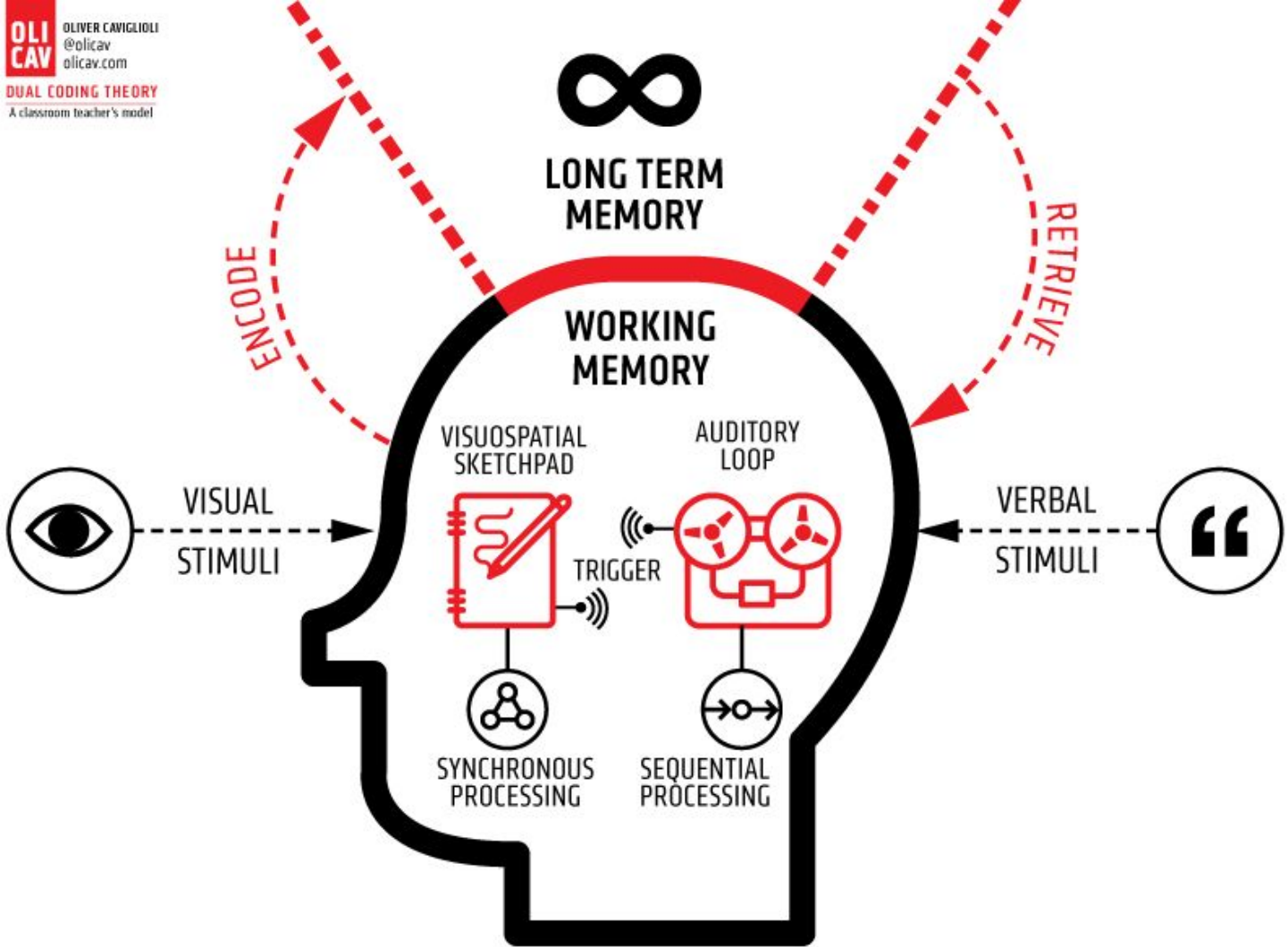
When?



**Spaced** over time

@EfratFurst





*If you eliminate all the words of a subject, you have eliminated the subject. Biology is not plants and animals. It is language about plants and animals.*



NEIL POSTMAN

TEACHING AS A CONSERVING ACTIVITY, 1990

<http://www.sec-ed.co.uk/best-practice/revision-techniques-interleaving-and-spacing/>

<https://www.olicav.com/>

<https://sites.google.com/view/efratfurst/home>

