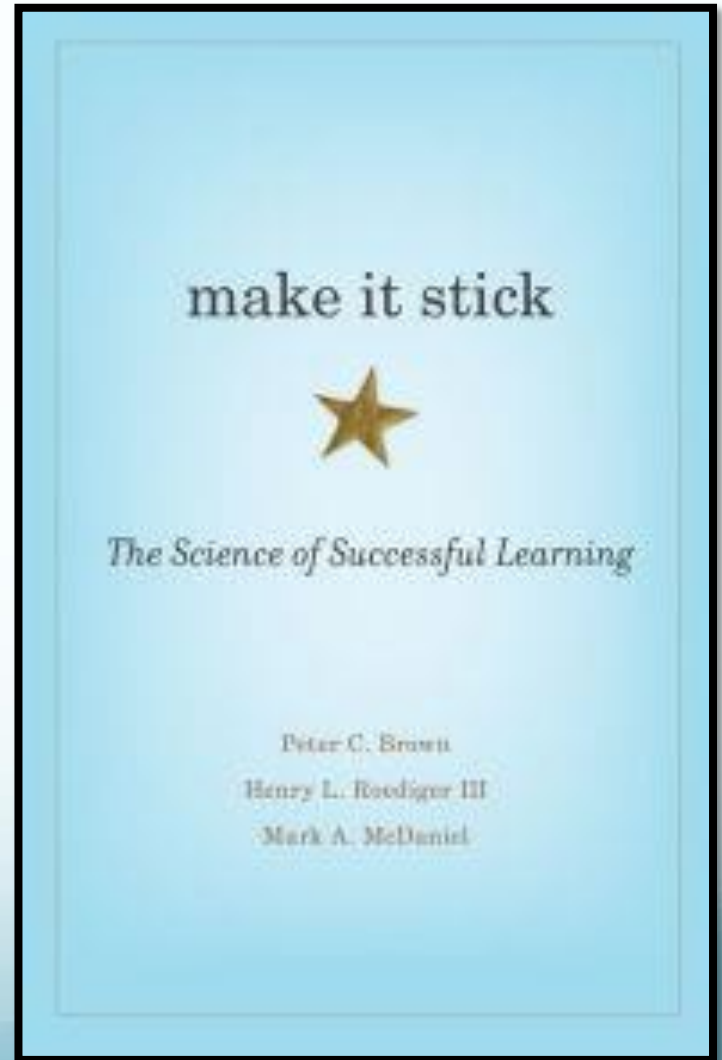


Putting Cognitive Science Theories to Work to Make Learning Stick!

Lisa DelSignore, MD

Learning is HARD WORK!

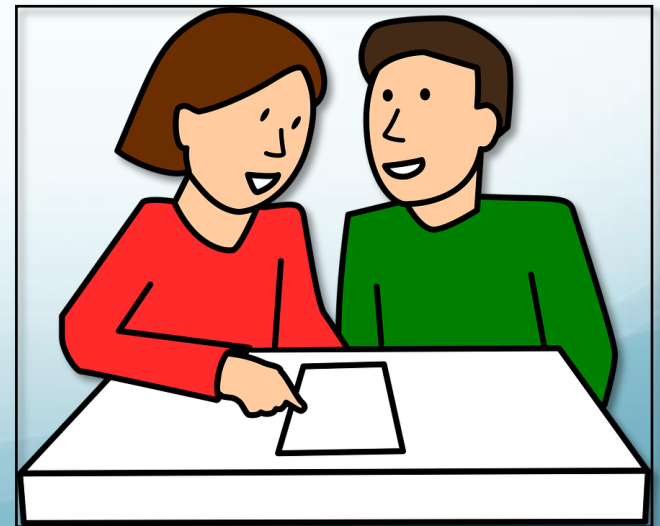
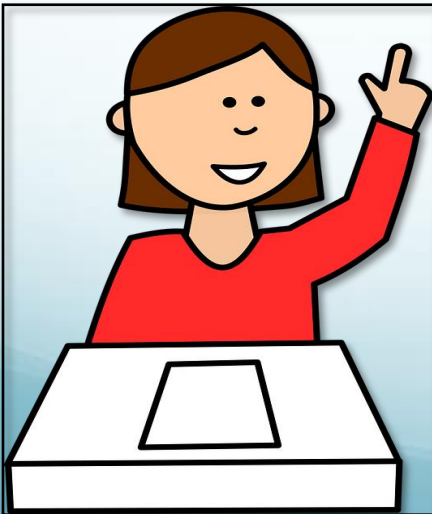
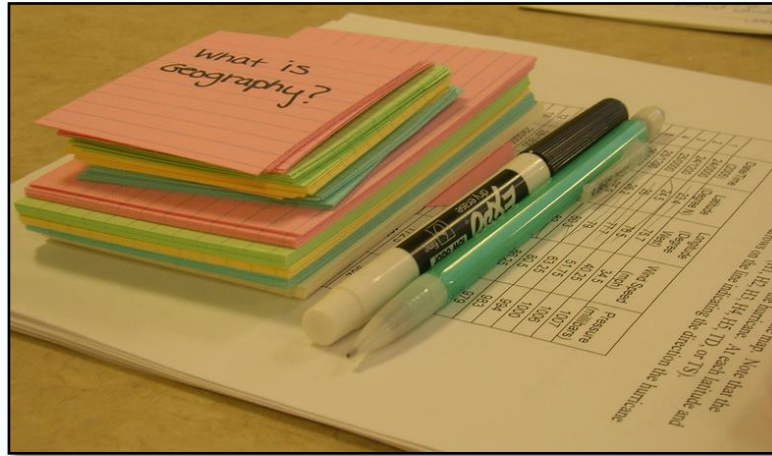
“Learning is deeper and more durable when it is effortful.”



Examples of Least Productive Learning Strategies



Active Learning for Mastery



Learning for Mastery: 6 Key Activities



**Retrieval
Practice**

Elaboration

Interleaving

Generation

Reflection

Calibration



(a)



(b)



(c)



(d)



(e)



(f)



(g)



(h)



(i)



(j)



(k)



(l)



(m)



(n)



(o)

Desirable Difficulties

- Use of cognitive learning strategies can be uncomfortable and difficult
- Avoid evolution to undesirable difficulties if learners lack underlying knowledge
- Feedback: Praise learner's efforts over knowledge