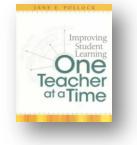
Elementary Session #3 Notes Rogers Public Schools Dr. Jane E. Pollock 11/13/12



Jane E. Pollock, Ph.D. 720.985.1137 www.learninghorizon.net

Janie's Cholesterol Story

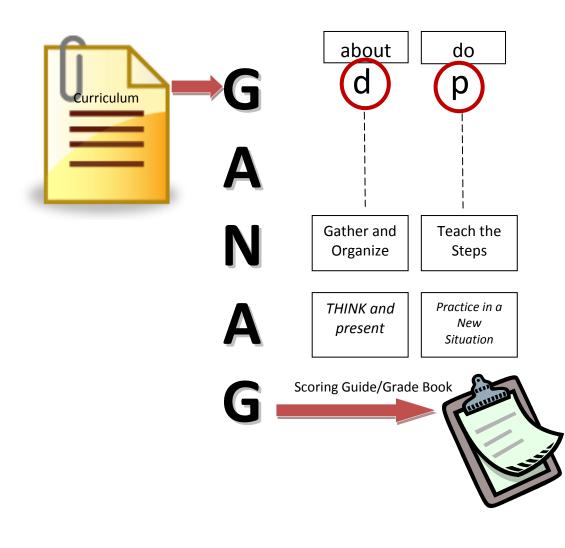
Even though she is a vegetarian and runs regularly, her cholesterol was high. She made the following

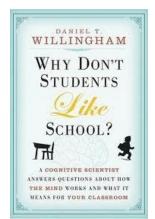
Símple Changes:

- 1. Increase fruits and vegetables
- 2. Add oat bran to diet
- 3. Change exercise routine
- 4. Drink more water



Declarative and Procedural Knowledge

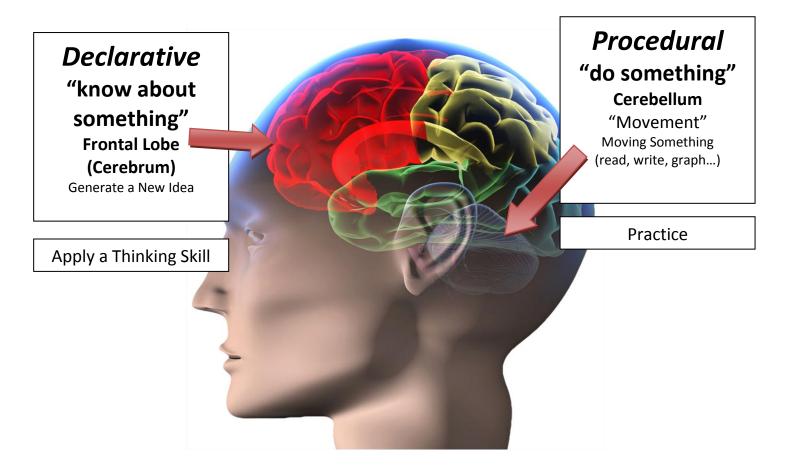




"The brain is not designed for thinking"



We use different parts of our brain for different types of knowledge.



Thinking Skills (a.k.a. Executive Functions) are very effective for learning declarative knowledge.

THINKING SKILLS

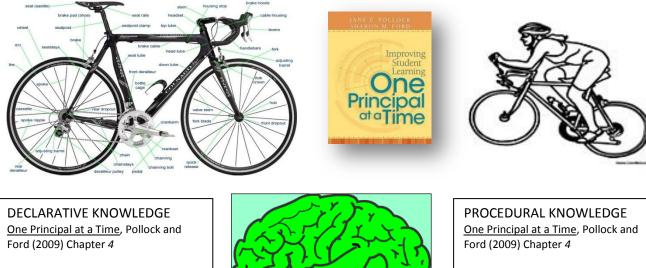
Identifying Similarities and Differences	Compare	Create an Analogy	Classify		
<u>Use Analysis</u> <u>Techniques</u>	Analyze Perspective	Create an Argument or Persuade	Analyze for Logical Fallacy	Analyze a System	
<u>Generate and</u> <u>Test</u> <u>Hypotheses</u>	Make a Decision	Solve a Problem	Investigate	Invent	Experiment

From HOW TO BUILD A BETTER LESSON handout

DECLARATIVE and PROCEDURAL KNOWLEDGE

"If you can name the parts of a bicycle, you have declarative knowledge or knowledge you can declare. If you can ride the bicycle, you have procedural knowledge, also known as habitual knowledge."

One Principal at a Time, Pollock and Ford (2009) Chapter 4 page 83



Declarative knowledge is EASY to learn and EASY to forget

Processed in the Cerebrum

"When understands or knows prefaces a benchmark for a lesson, that benchmark is immediately recognizable as declarative knowledge." pg. 85

Declarative knowledge = apply a thinking skill

Procedural knowledge is HARD to learn but HARD to forget

Processed in the Cerebellum

Approx. 80% of K-2 instruction is procedural knowledge

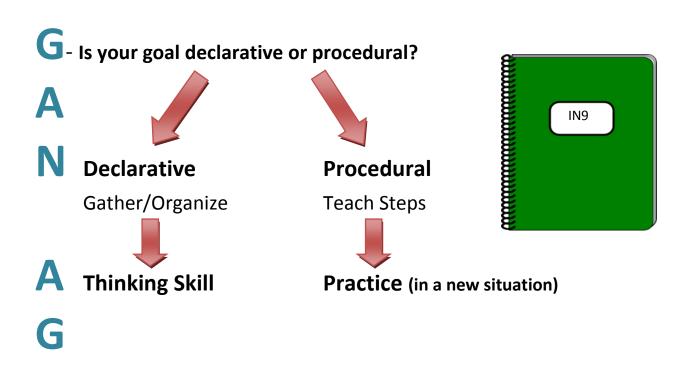
Procedural knowledge= practice

Declarative and Procedural High-Yield Strategies

Classroom Instruction That Works Marzano, Pickering, Pollock (2001)

- 2- Identifying similarities and differences- declarative- thinking skill
- 3- Summarizing and note taking- procedural
- 5- Homework and practice- procedural
- 9- Generating and testing hypotheses- declarative- thinking skill
- 10- Questions, cues, and advance organizers- declarative- thinking skill

Declarative and Procedural Knowledge and GANAG



Assignment for January:

Bring a GANAG Lesson where you applied a thinking skill or a lesson where you are planning on applying a thinking skill. (Science and Social Studies lessons may be easier.)