



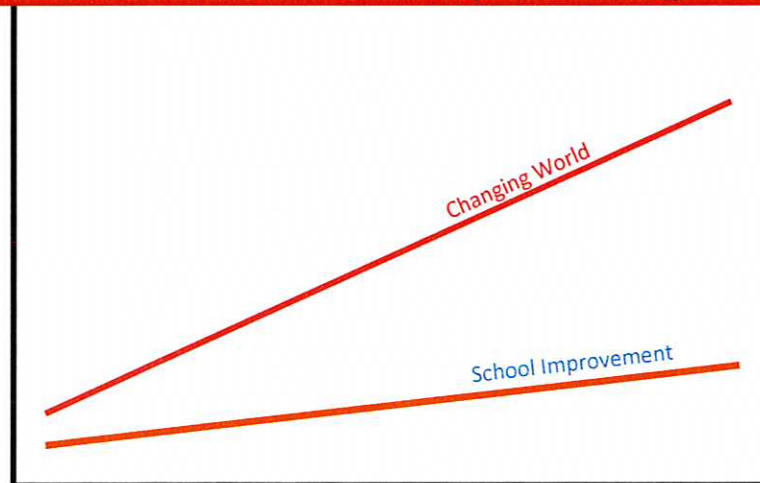
Testimony before the  
House Committee on Education on

HB 2289 Prohibiting the use of common core state standards.

Dr. Martin Stessman, Superintendent  
Shawnee Heights USD 450

March 21, 2013

## Schools are Improving



Just not fast enough to keep up with the changing world

**Information is everywhere. Sense-making and the ability to evaluate the credibility of information are paramount.**

## **Where are the Jobs?**

### **Non-Routine**

Results Driven  
Decision Making  
More Innovation / Creativity  
Deeper Thinking

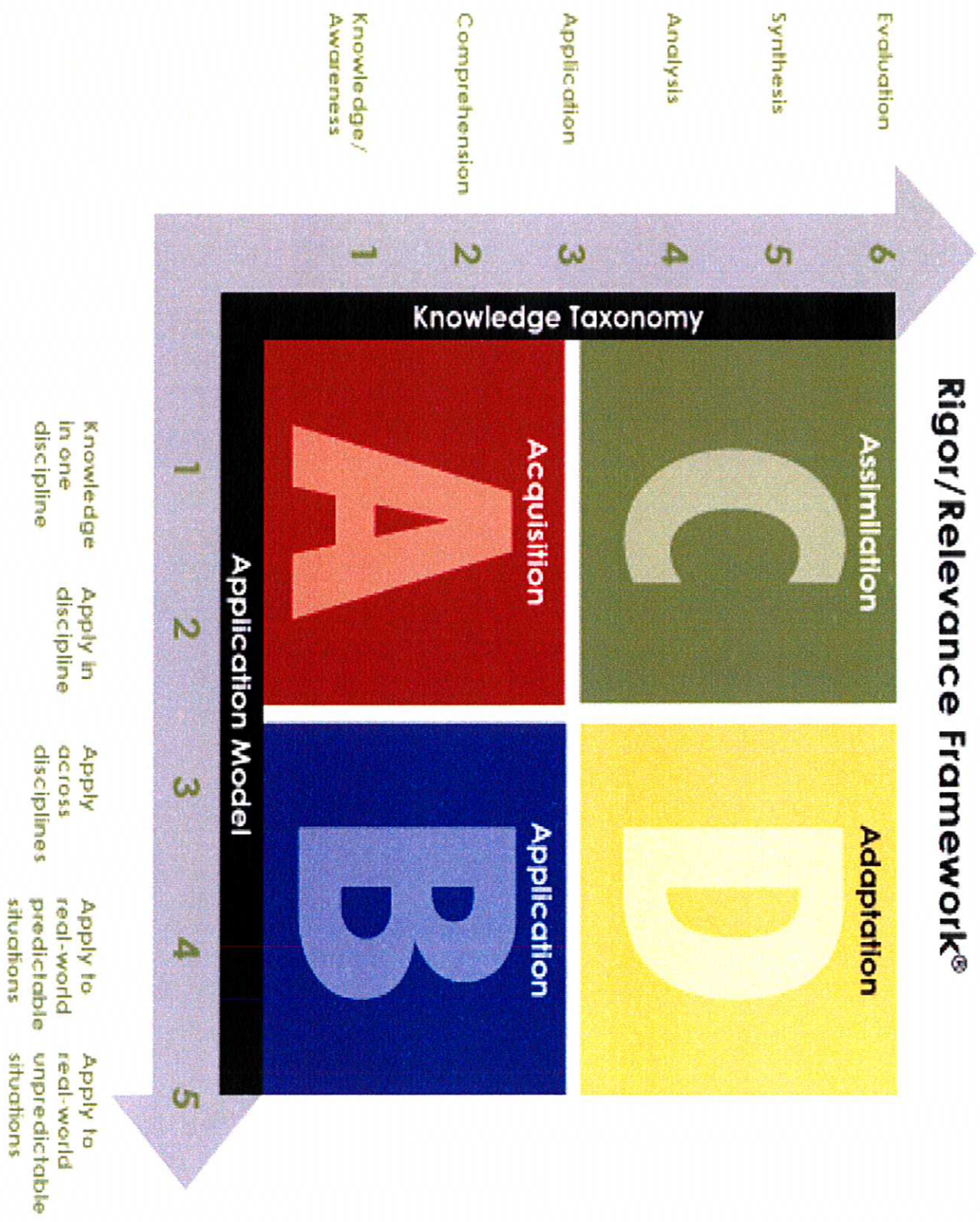
### **Routine**

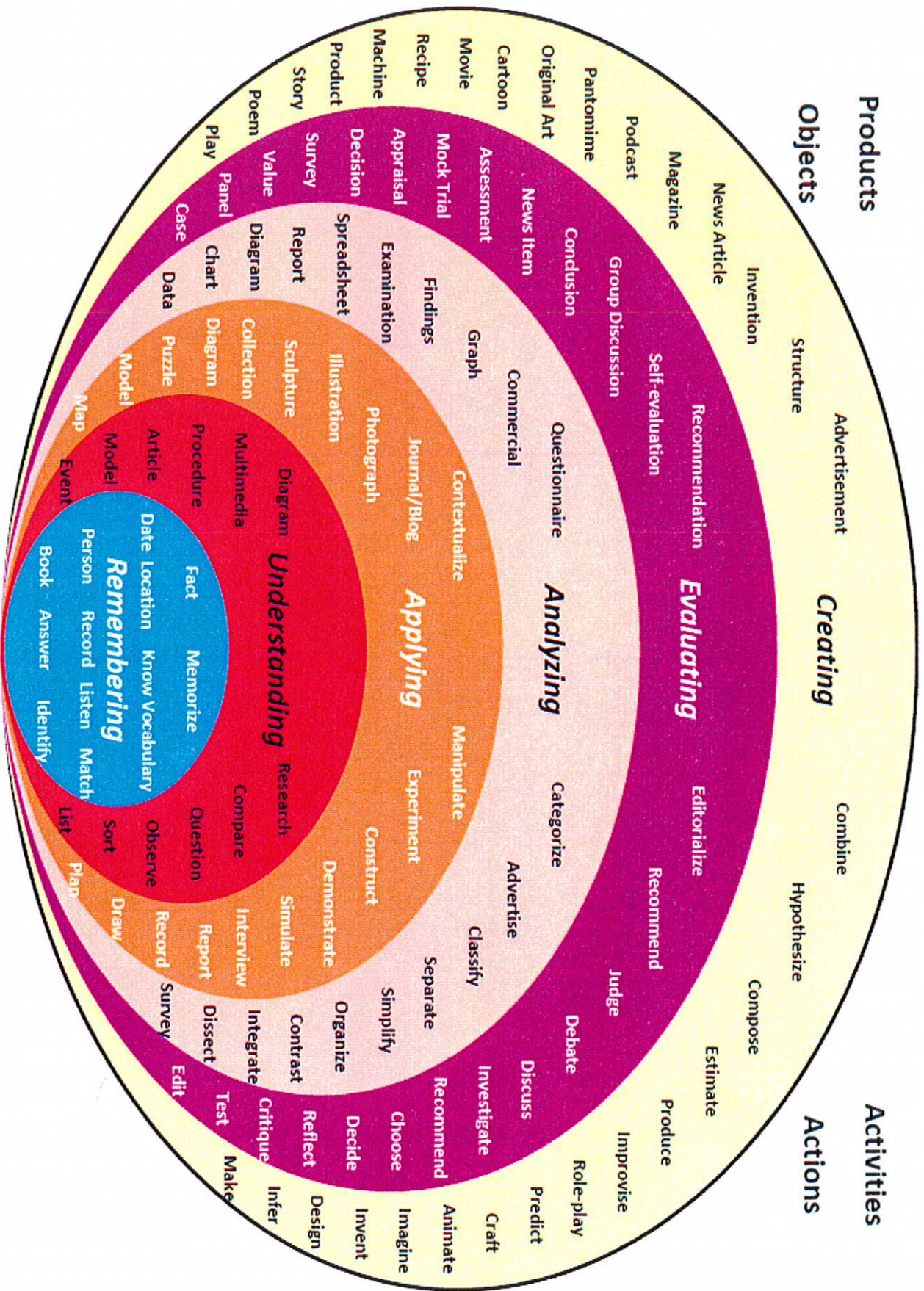
Rules Driven  
Solving Problems  
Less Innovation/Creativity  
Algorithmic Thinking

1981

2013

# Rigor/Relevance Framework®





# Example: Performance Task

## Gas Bills, Heating Degree Days, and Energy Efficiency

*Here is a typical story about an Ohio family concerned with saving money and energy by better insulating their house.*

Kevin and Shana Johnson's mother was surprised by some very high gas heating bills during the winter months of 2007. To improve the energy efficiency of her house, Ms. Johnson found a contractor who installed new insulation and sealed some of her windows. He charged her \$600 for this work and told her he was pretty sure that her gas bills would go down by "at least 10 percent each year." Since she had spent nearly \$1,500 to keep her house warm the previous winter, she expected her investment would conserve enough energy to save at least \$150 each winter (10% of \$1,500) on her gas bills.

Ms. Johnson's gas bill in January 2007 was \$240. When she got the bill for January 2008, she was stunned that the new bill was \$235. If the new insulation was going to save only \$5 each month, it was going to take a very long time to earn back the \$600 she had spent. So she called the insulation contractor to see if he had an explanation for what might have gone wrong. The contractor pointed out that the month of January had been very cold this year and that the rates had gone up from last year. He said her bill was probably at least 10% less than it would have been without the new insulation and window sealing.

Ms. Johnson compared her January bill from 2008 to her January bill from 2007. She found out that she had used 200 units of heat in January of 2007 and was charged \$1.20 per unit (total = \$240). In 2008, she had used 188 units of heat but was charged \$1.25 per unit (total = \$235) because gas prices were higher in 2008. She found out the average temperature in Ohio in January 2007 had been 32.9 degrees, and in January of 2008, the average temperature was more than 4 degrees colder, 28.7 degrees. Ms. Johnson realized she was doing well to have used less energy (188 units versus 200 units), especially in a month when it had been colder than the previous year.

Since she used gas for heating only, Ms. Johnson wanted a better estimate of the savings due to the additional insulation and window sealing. She asked Kevin and Shana to look into whether the "heating degree days" listed on the bill might provide some insight.

Argon Energy Co.	Customer	Bill Date
	Ms. Arlene Johnson 42 Bluebonnet Avenue Columbus, OH 43205	January 31, 2008 Account # 55-73342B Residential
<b>Current Itemized Bill</b>		
December 30 reading actual		8300
January 31 reading actual		8488
Total units used January 2008		188
January 2008:	1108 heating degree days 0 cooling degree days	
Price per unit @ \$1.25		\$235
<b>Energy Use History</b>		
Total units used January 2007		200
January 2007:	1000 heating degree days 0 cooling degree days	
<b>TOTAL CURRENT CHARGES</b>		<b>\$235</b>

(continued)

Five swimmers compete in the 50-meter race. The finish time for each swimmer is shown below.

Men's 50 Meter Freestyle

23.42

23.35

23.24

23.21

23.18

Explain how the results of the race would change if the race used a clock that rounded to the nearest tenth.

The noise level at a music concert must be no more than 80 decibels (dB) at the edge of the property on which the concert is held.

Melissa uses a decibel meter to test whether the noise level at the edge of the property is no more than 80 dB.

Melissa is standing 10 feet away from the speakers and the noise level is 100 dB.

The edge of the property is 70 feet away from the speakers.

Every time the distance between the speakers and Melissa doubles, the noise level decreases by about 6 dB.

Rafael claims that the noise level at the edge of the property is no more than 80 dB since the edge of the property is over 4 times the distance from where Melissa is standing. Explain whether Rafael is or is not correct.