



# Reintroducing Lateral Thinking:

Teach Creativity While You Teach Everything  
Else!

Andrew Capelli

# A Murder Most Foul!



# Baby in Distress...!



# Riddle Me This, Batman...!

- Egg Query
- Another Murder Most Foul
- Twin Question
- River Wreck
- Truck Driver Amok
- Rice Math
- Haircut



# Reification

- Per Edward O. Wilson, famous Harvard biologist, “Reification is the quick and easy mental algorithm in a world otherwise overwhelming in flux and detail.”
- George Clooney in the 2009 film *Up in the Air*:  
“... I stereotype. It’s faster.”



Examining and deconstructing **binaries** are one example of one way critical literacy theorists critique texts. Binary thinking is analogous to ‘polar’ thinking.

Many—if not most—issues (in schools, in the media, in books) are presented in terms of binaries.

Good vs. Bad

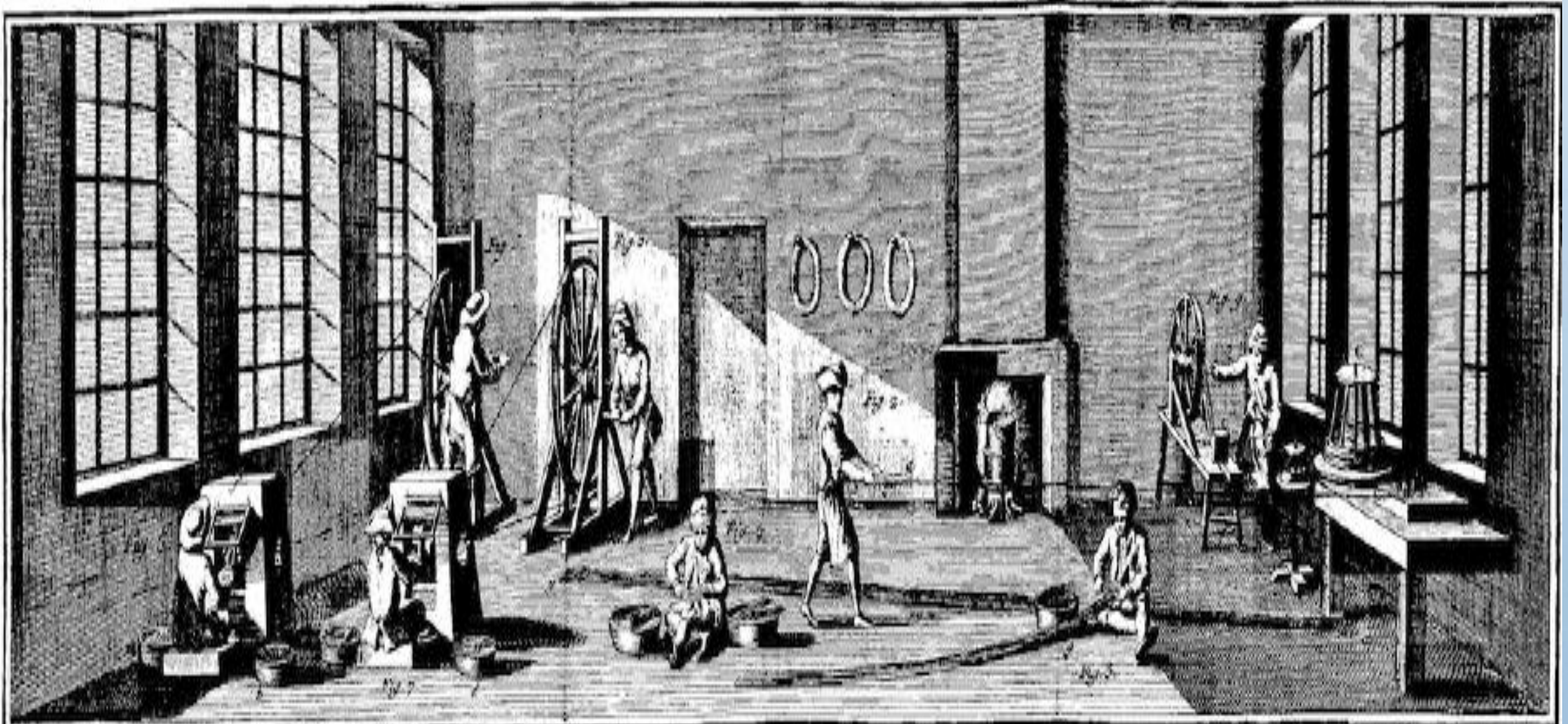
**Black** vs. **White**

Male vs. Female

Allies vs. Axis of Evil

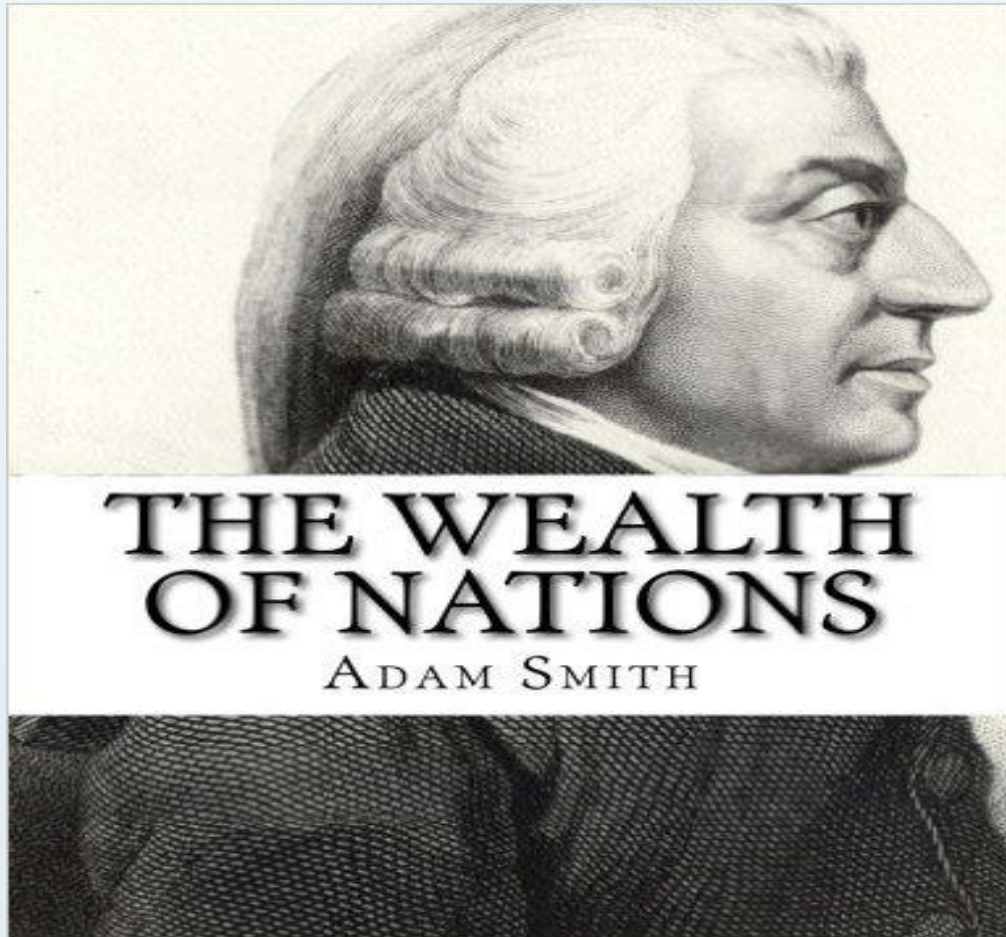
Heterosexual vs. Homosexual

# Adam Smith & The Pin Factory: Specialized Division of Labor





# Adam Smith's Principles in History



- 1820s- Railroads: Transportation and business bureaucracy
- Early 1900s- Henry Ford and the assembly line, followed by Albert Sloan and decentralized management
- 1960s- Data-driven metrics and economic units

# Adam Smith, R.I.P.

- From *Reengineering the Corporation* by Michael Hammer & James Champy:

“In today’s environment nothing is constant or predictable- not market growth, customer demand, product life cycles, the rate of technological change, or the nature of competition. Adam Smith’s world and its way of doing business are yesterday’s paradigm.”





# New Thinking Needed!

- *Reengineering the Corporation* was written in 1993!
- 23 years have passed since Hammer's & Champy's call to action.
- Has the public education system responded? What can educators do?



Edward DeBono and...  
**Lateral Thinking!**



# What is Lateral Thinking?



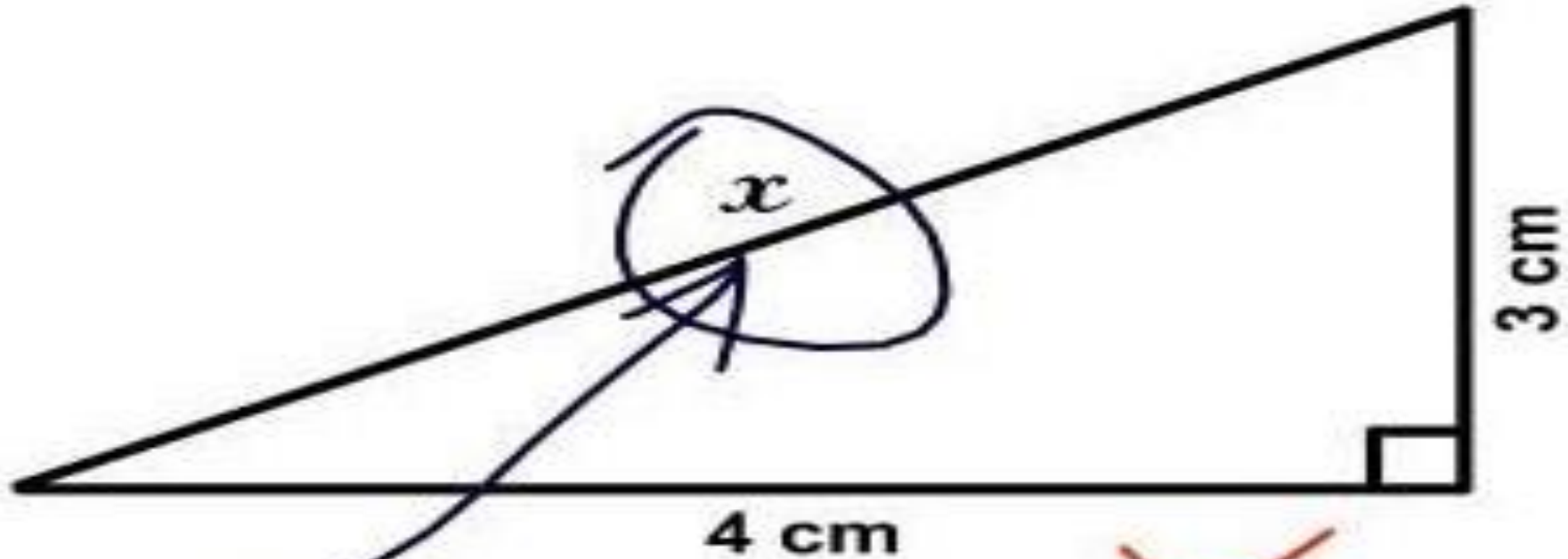
- **Lateral thinking** is solving problems through an indirect and creative approach, using reasoning that is not immediately obvious and involving ideas that may not be obtainable by using only traditional step-by-step logic. The term was coined in 1967 by Edward de Bono.

Lateral thinking. (n.d.). Retrieved May 08, 2016, from [https://en.wikipedia.org/wiki/Lateral\\_thinking](https://en.wikipedia.org/wiki/Lateral_thinking)



# Example: Lateral Thinking in School

**3. Find  $x$ .**



*Here it is*

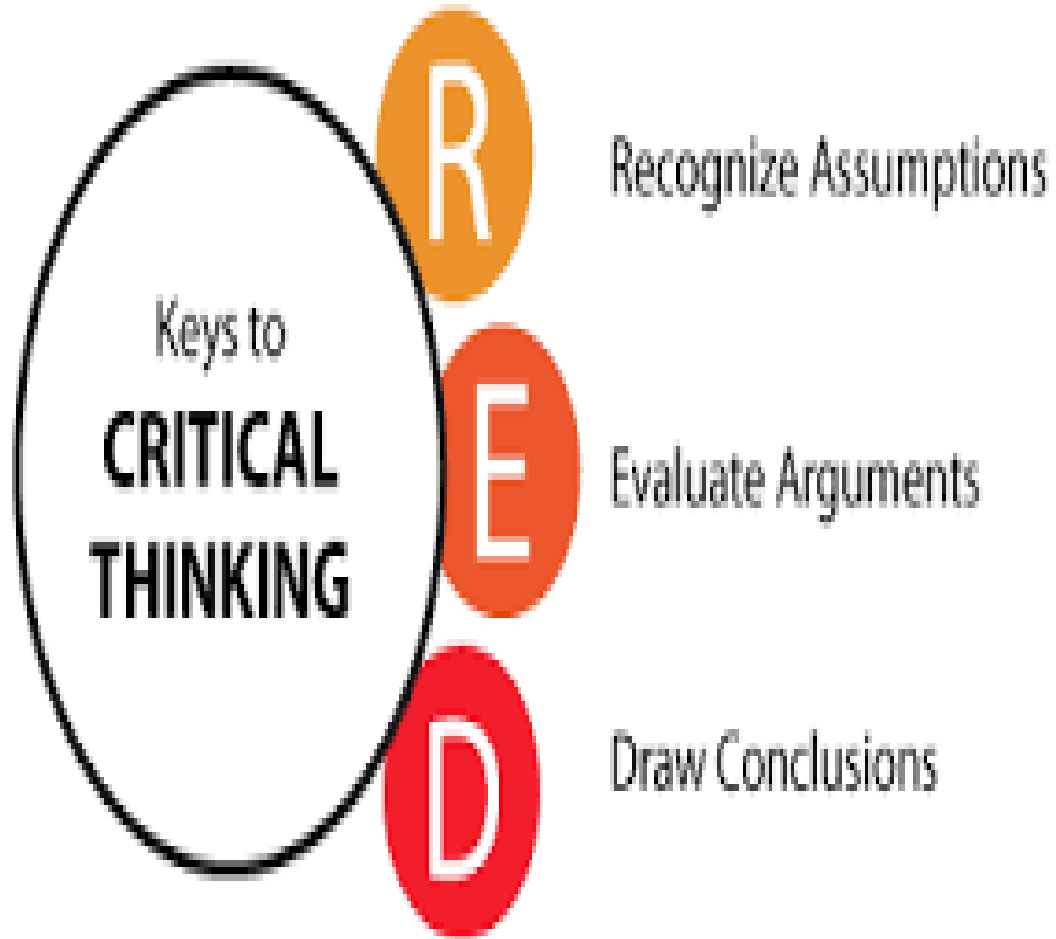


# Example: Lateral Thinking at Work

- iPods are a product of lateral thinking. If Steve Jobs and Apple had used linear thinking, they would have developed a better CD player.
- Linear thinking will solve linear problems. Lateral thinking can solve problems that may not even exist yet.



# “Critical Thinking” = Criticism: Right/Wrong, Either/Or Results



- DeBono: “Critical thinking perpetuates the old-fashioned view... that analysis, judgment and argument are enough...”
- While judgment thinking has its place... it lacks generative, productive, creative and design aspects of thinking that are so vital.”



# Comparison of Vertical & Lateral Thinking:

## Vertical Movement:

- Rightness matters
- Selects pathways by excluding other pathways
- Selects the most promising approach to a problem
- May look for different approaches *until* a promising one is found
- Trying to find the best approach

## Lateral Movement:

- Richness matter
- Does not select, but seeks to open other pathways
- Generates as many approaches as one can
- May generate as many approaches as one can *after* finding a promising approach
- Generating for its own sake

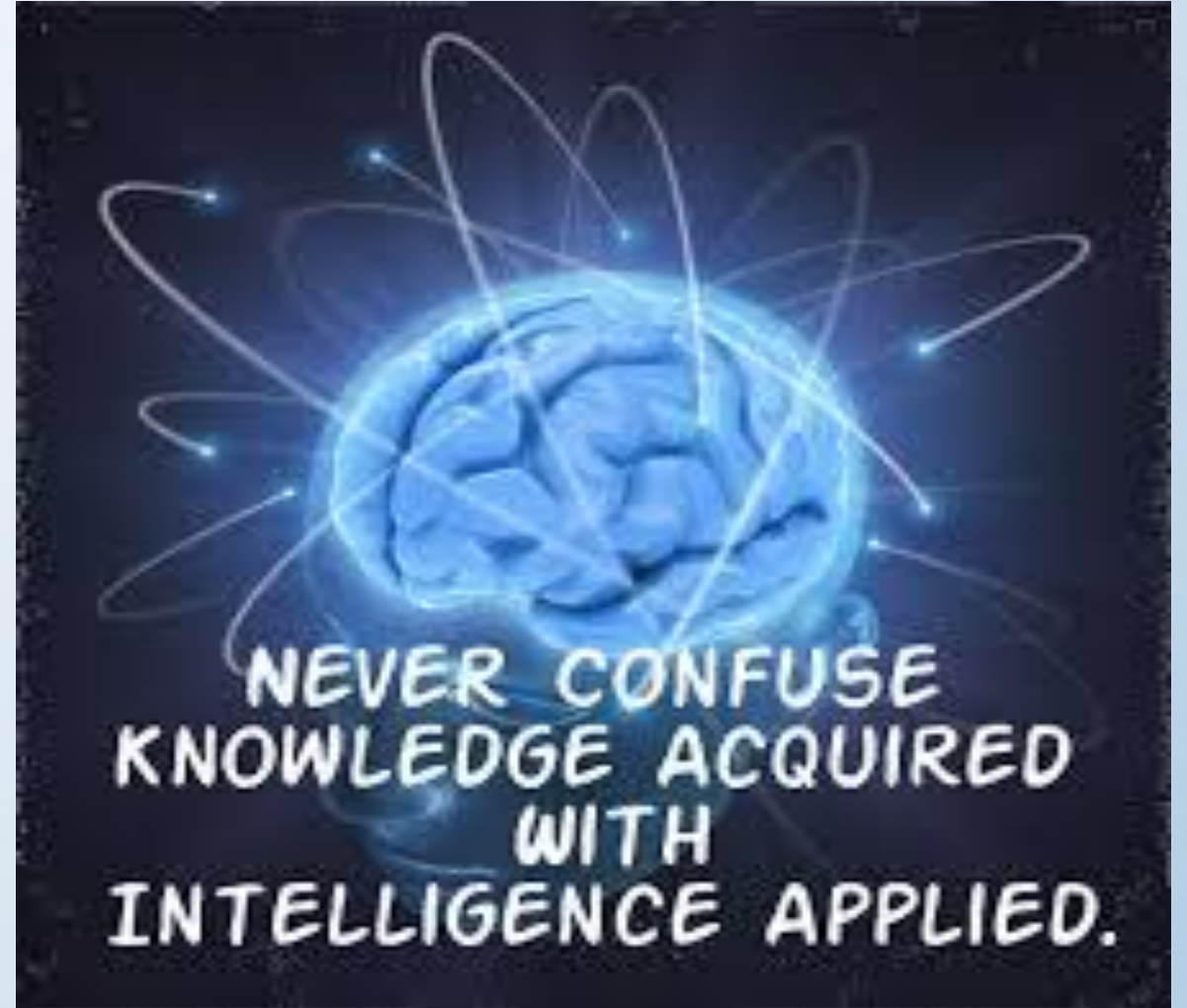
# Be Bold...!

- De Bono: “Thinking is a skill that can be improved by training, by practice and through learning how to do it better. Thinking is no different from any other skill and we can get better at the skill of thinking if we have the will to do so.”



# Thinking...

- Thinking needs to be part of the curriculum
- Just because “thinking” has not been explicitly taught is not an excuse not to teach it: “The world is changing.”
- Thinking cannot be learned from the teaching of information. *Knowledge* is not the same as *thinking*.





The Inclusion of Thinking:  
**Transforming  
Teaching**



# Teachers Can Teach Thinking



- There are practical ways to teach thinking directly—particularly lateral thinking.
- Teach using fundamental thinking tools, which are “attention-directing tools.”
- Don’t worry about being right or mistakes (yours or students’): “You could avoid all mistakes in driving by leaving the car in the garage.”

# Apply a Matrix

- No matter what subject you are teaching:
  - Also keep in mind that you are teaching thinking;
  - Encourage creativity and exploration...
    - Even at the expense of correct answers!
  - An answer may be incorrect for critical thinking purposes but still valuable for lateral thinking purposes.



# Specific Thinking Tools

- P.M.I. (Plus, Minus, Interesting)
- CAF (Consider All Factors)
- AGO (Aims, Goals, Objectives)
- C&S (Consequence & Sequel)
- OPV (Other People's Views)
- FIP (First Important Priorities)
- Po (Provocation)
- The 6 Thinking Hats:
  - White: Facts, Figures, Information
  - Red: Emotions, Feelings
  - Black: Caution, Judgment
  - Yellow: Advantages, Benefits
  - Green: Exploration, Proposals
  - Blue: Thinking about Thinking



# Summary



# Recap

- Schools have traditionally focused on critical thinking, only.
- That vision that was served by this policy is slipping away, and schools need to adapt.
- Thinking- and lateral thinking in particular- can be taught by any teacher to any student using specific techniques.



Q&A Time:



Finis! Thank You!

