DATA COACHING: CONDUCTING EFFECTIVE DATA CHATS

"Teaching cannot improve until we substantially improve our knowledge and our ability to use data."

Adam Urbanski, Vice President

American Federation of Teachers

Objectives

As a result of active participation in this session, participants will be able to:

Prioritize problem areas and action targets based on the evidence

Apply the coaching skills learned to guide data-related conversations

Link data to action planning

Agenda

Objectives

Assumptions

Data Sources and Resources

The Data Coach

Data Analysis

Process Analysis

The Data Dialogue

Action Planning

Questions and Wrap-Up

Assumptions

- Participants are well versed in the available data sources and resources for the grade levels at their schools

- Participants are comfortable with analyzing available data to identify strengths, weaknesses, and instructional needs

- Participants have some experience and/or training as instructional coaches

Data Sources and Resources

Level of inquiry – what do you want to know, and who do you want to know about?

School level –
Class level –
Teacher level-
Program or group level-
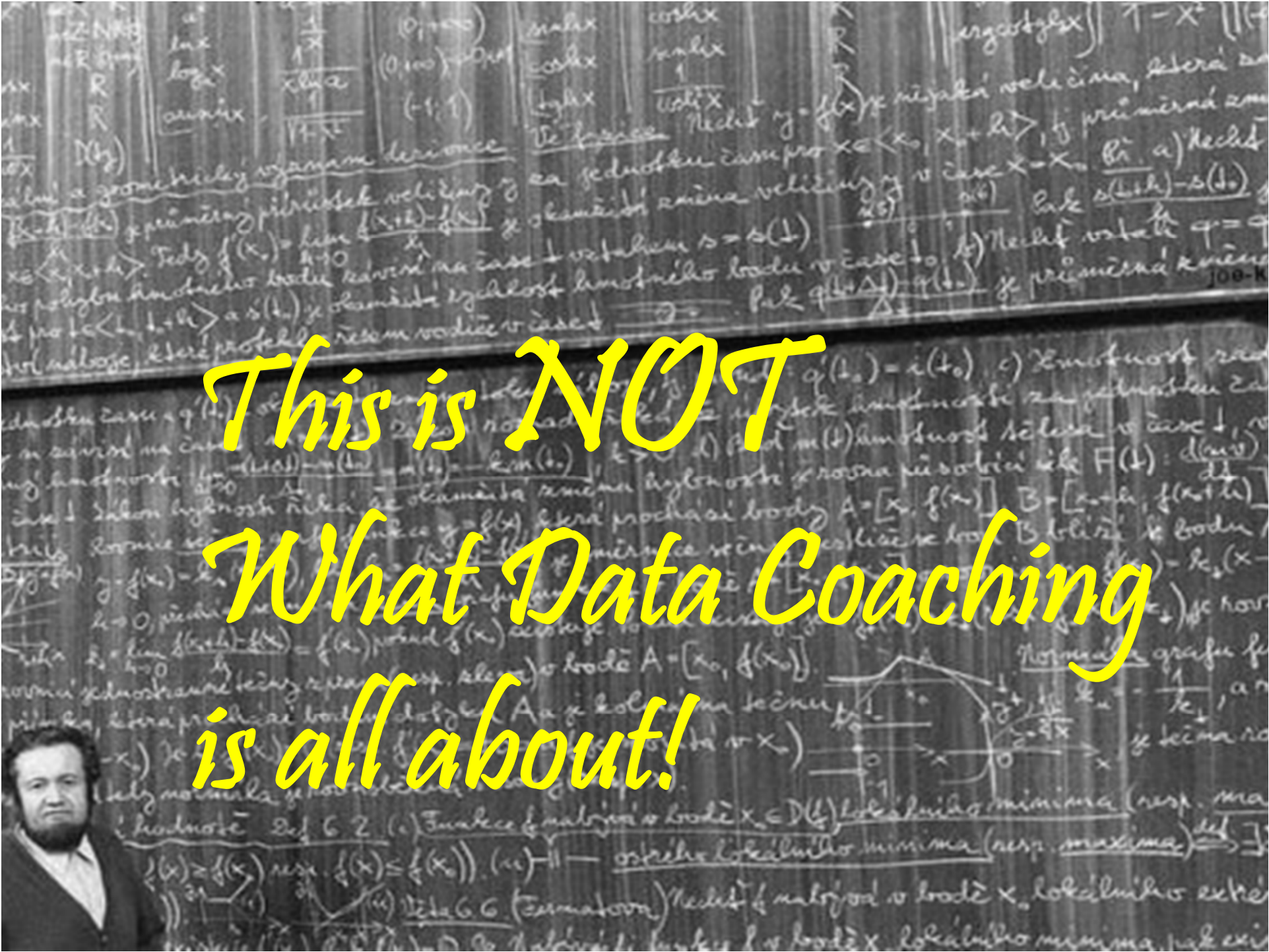**Individual student level-**
Content cluster level-
Benchmark level-

Using the worksheet provided, work with your group to address:

1. What sources of data would you use for each of these levels of inquiry?

2. When?

3. Why?

4. What kinds of decisions can you make based on these data?
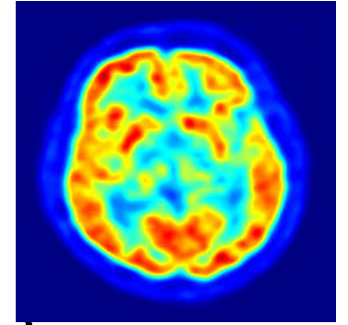
The Data Coach

This is NOT
What Data Coaching
is all about!

Then…What IS Data Coaching?

Brainstorm: The Data Coach

1. Think about the questions below. Use the worksheet in the packet to write down your ideas.

2. Discuss with your team mates. Come up

with five or six responses from your team for each question. Write each team response on a separate sticky note.

3. Post your stickies on the appropriate charts.

Group your responses with others that are similar.

What does an effective data coach need to *know and be able to do*?

What are the *characteristics* that would make someone an effective data coach?

Characteristics of Effective Coaches

- Beliefs
- Coaching Skills
- Content Expertise
- Leadership Skills
- Relationship Skills
- Teaching Expertise

Joellen Kinson and Cindy Harrison: Taking the Lead: New Roles for Teachers and School-Based Coaches

Skills and Characteristics
of a Data Coach

- Data literacy
- Facilitating data dialogue
- Effective communication:

  Listening, questioning, clarifying, explaining
- Understand group dynamics and processes
- Promoting collaborative inquiry
- Supporting continuous improvement

- Trustworthy
- Respectful and respected
- Committed to equity
- Models collaborative leadership
- Team-building
- Change agent
- Engages others in the work - "We" not "I"

The Data Coach

- Helps teachers use data more effectively
- Facilitates teachers' understanding of data
- Engages teachers in discussions about data
- Works in partnership with school team members to engage in collaborative inquiry
- Models a commitment to continuous improvement

The Coaching Environment

- No blame , no shame, no game!
- Evidence-based
- Search for root causes and potential action points
- Safe- "ambush-free"
- All about the teaching and learning
- Collaborative inquiry process
- Egalitarian partnership – no "guru on the mountain"
- Respectful of participants, process, and parameters (schedules, time, roles)

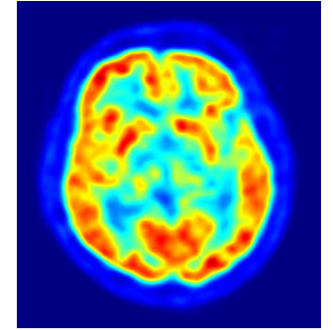# Making Sense of Data

DATA

- **Collecting**
- **Organizing**

INFORMATION

- **Summarizing**
- **Analyzing**

KNOWLEDGE

- **Synthesizing**
- **Decision-Making**

Brain Warm-up

Find the *"An Unusual Incident"* Worksheet

in your packet. Look at the data.

Your challenge is to **identify the actual event** on which these data are based. Think about what **further information you will need** in order to identify the event.

You may ask questions than can be answered in "Twenty Questions" format, that is, only by **"Yes" or "No"** answers.   The presenter can only answer twenty (20) questions total from the group, so make each one count!

The Collaborative Inquiry Process

"…a process where teachers construct their understanding of student-learning problems and embrace and test out solutions together through rigorous use of data and reflective dialogue."

"Teachers learn to not just be data literate but to draw on deep knowledge of content and how to teach it and on an abiding belief in the capacity of all children to learn."

Nancy Love, ed.   Using Data to Improve Learning for All, a Collaborative Inquiry Approach

"Data is relationships…the more things you have to connect together, the more powerful it is."

Tim Berners-Lee, inventor of the World Wide Web

From the TED talk available at:

http://www.ted.com/talks/lang/eng/tim_berners_lee_on_the_next_web.html

The Big Question:

How can data analysis be applied to improve performance?

Data Analysis:
The Big Picture

- **What do we want to know?**

- **What do the data show?**

- **How did we get here?**

- **Where do we need to go from here?**

- **How will we get there?**

- **Who needs to share the work?**

Root Cause Analysis: the Five Whys

- Why did the event happen? (Immediate cause)
- Why did that happen?
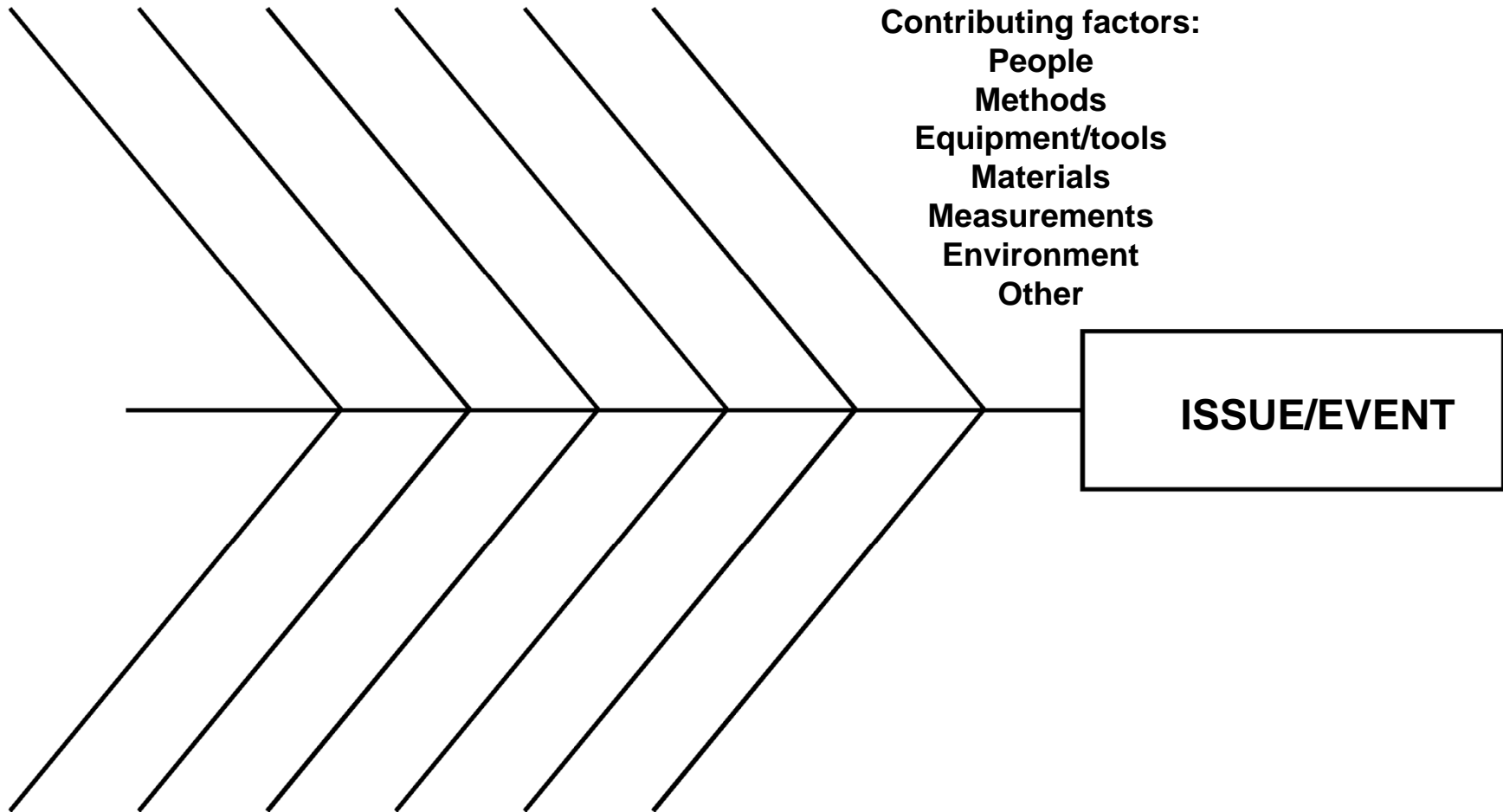- Why did that happen?
- Why did that happen?
- Why did that happen?

Question: Will fixing that solve the problem or prevent it from happening?

> **Yes**- this is the root cause - Fix it!

> **No** – this is not the root cause (may be a contributing factor, but is not both necessary and sufficient)

## Don't fix symptoms , find the cause!

Ishikawa Root Cause Fishbone

Contributing factors:
People
Methods
Equipment/tools
Materials
Measurements
Environment
Other

ISSUE/EVENT

Root Cause Activity

For want of a nail a horseshoe was lost,
for want of a horseshoe a horse was lost,
for want of a horse a rider was lost,
for want of a rider a message was lost,
for want of a message an army was lost,
for want of an army a battle was lost,
for want of a battle a war was lost,
for want of a war a kingdom was lost,

and all for want of a horseshoe nail!

Link for creating a fishbone diagram online
http://classtools.net/education-games-php/fishbone/
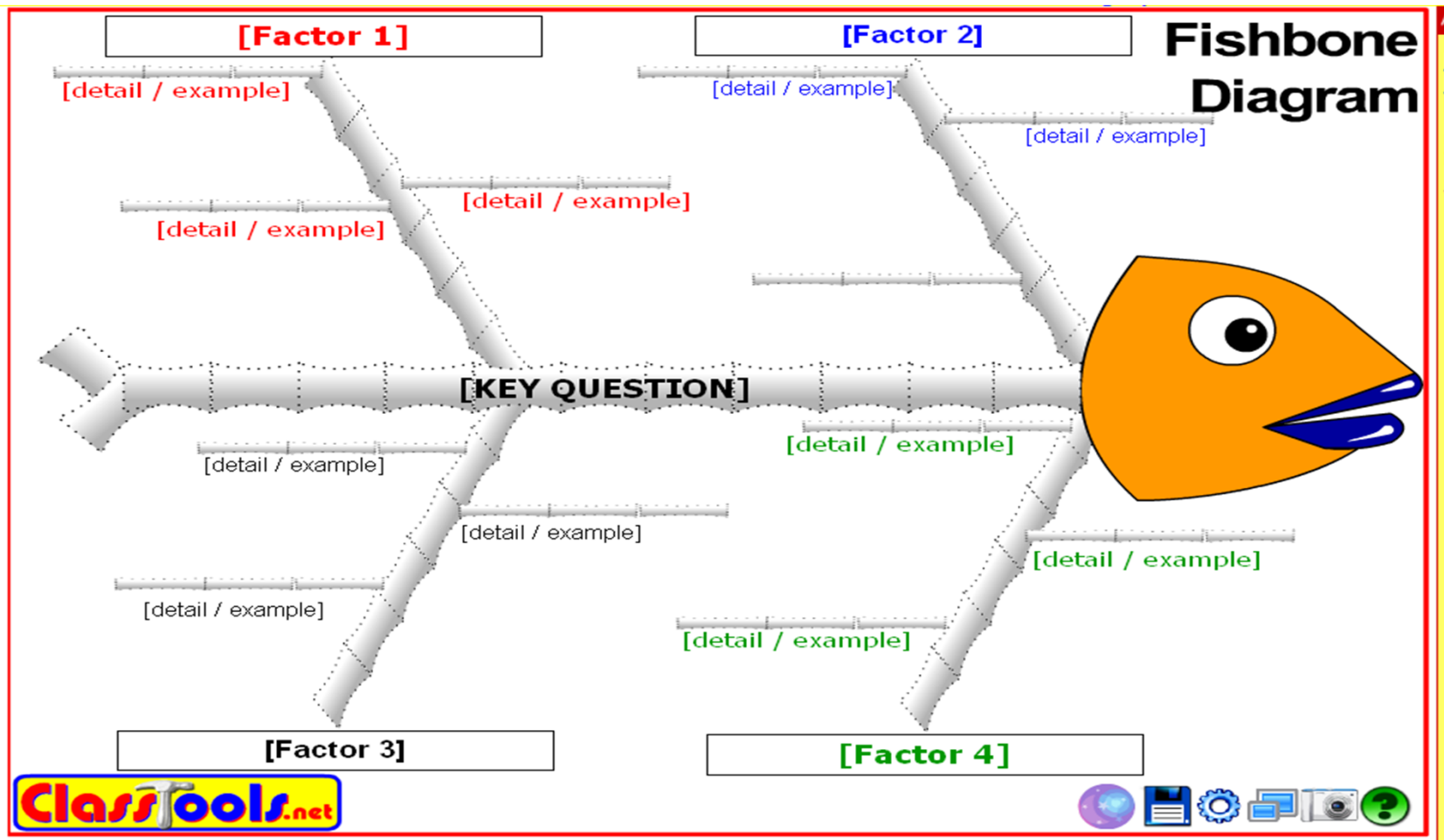
The Data Dialogue:
Putting it all together
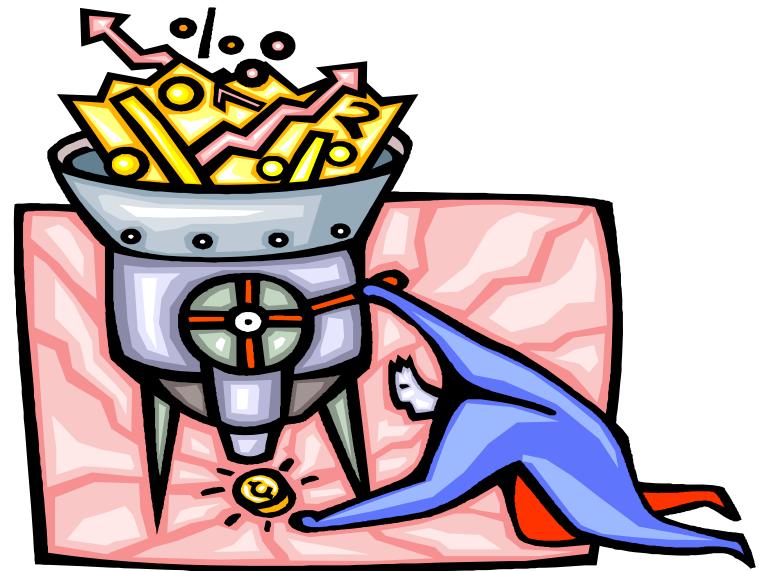
Framing the Data Conversations

WHAT?

SO WHAT?

WHO CARES?

HOW COME?

NOW WHAT?

Look at the Raw Data for Yourself!

"Sorry, we don't serve raw data – how would you like us to cook the numbers?"

EXAMPLE: DATA OBSERVATION WORKSHEET

Data Source(s) Reviewed

_____

Level of Review: (Circle) School wide, Grade Level, Subject, Classroom (Teacher), Content Cluster/ Strand, Standard/Benchmark , Student Group/ Individual Student

Data Element	Main Issue(s) Noted	Additional Notes	Confirming or Contradictory Data (Source)

WHAT? – The Evidence-Based Dialogue

(Just the facts, ma'am)

- I see that
- I observe that
- Some patterns that I notice
- I see numbers, counts, increases, decreases in…..

Hold the opinions, speculations, inferences, and actions

- ~~Because~~
- ~~Evidently~~
- ~~There~~
- ~~So, then~~

Sidebar: Observation Vs. Inference

EVIDENCE

- This ice cream is vanilla flavored

- 22 percent of grade 11 students are in remedial test prep class in reading

BELIEF/OPINION

- Vanilla is yummy!

- That is too many students at risk,

  or

- The grade 10 teachers did not prepare their students for the test last year

SO WHAT –
Developing Meaning Within Context

Why is this fact or observation important or meaningful?

- Real or potential consequences (graduation, promotion, grading, cutoff score, etc.)

- Pattern or trend?

How does this fact or observation relate to other information that we have?

- Confirms, supports, expands?

- Contradicts, outlier, unexpected, doesn't fit?

- Other data sources?

WHO CARES?

- Who is impacted by this?
- Who else needs to know?

- Whose work is reflected in the data? (feedback)
- Who needs to be part of the work? (planning)

HOW COME?

How did these data come to be?

If good – what can be replicated or expanded?

If poor – what happened or failed to happen?

What are potential action points, resources, and barriers?

Root Cause analysis

Process Analysis

Continuous Improvement Cycle

Plan - Do - Study (Check) - Act

NOW WHAT?
–The action plan

What are the desired outcomes?

What are the identified action points, resources, and barriers?

How is success defined?

What are the steps to take?
 By whom?
 When?
 With what resources?

How is progress measured?

When?

What adjustments need to be made at the progress checkpoints?

Data Should Lead to Action

Or…Why weigh the pig if you're not going to feed it?

Prioritizing Objectives for Action

Based on the evidence....

- Greatest urgency

- Highest need

- Greatest effect

- Most effective use of available resources

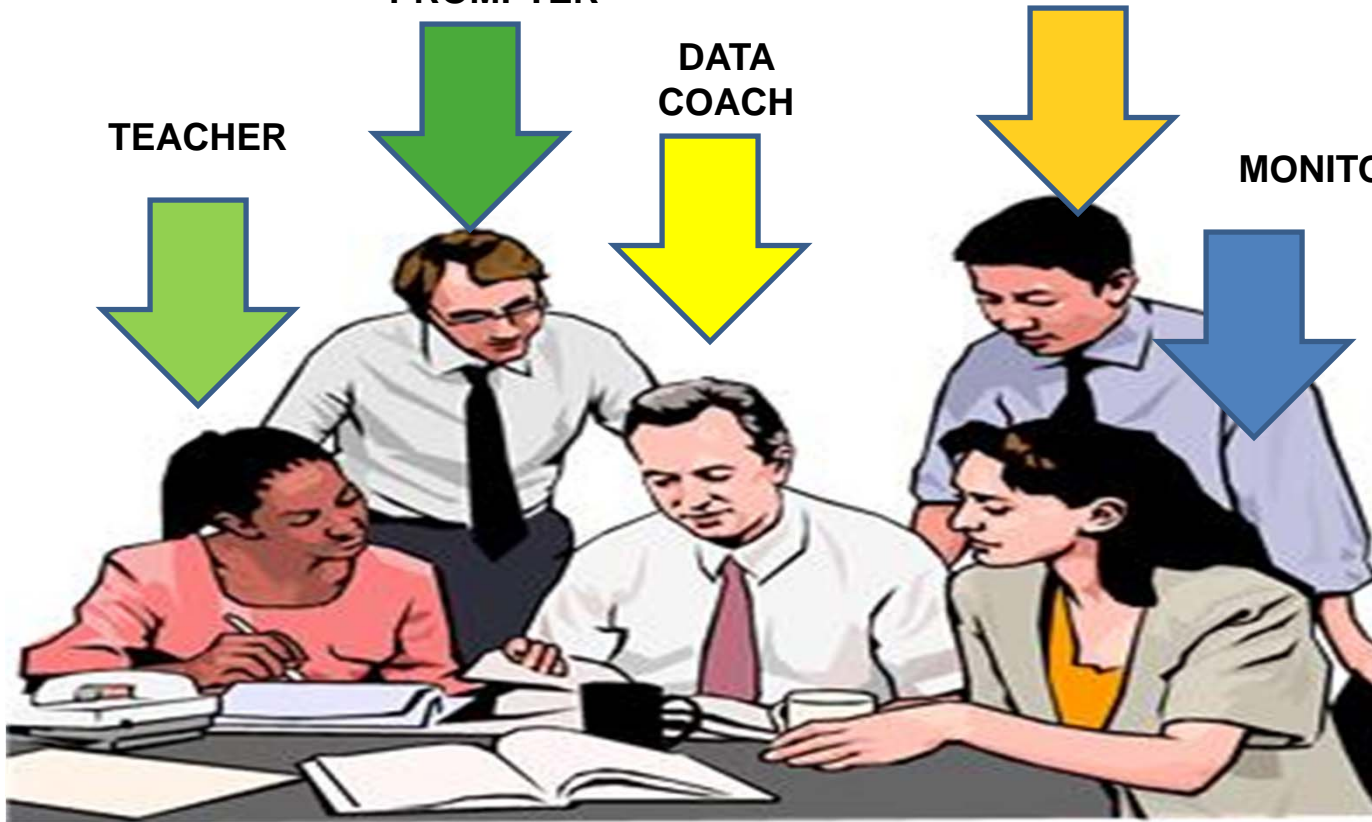- Most "Do-able"

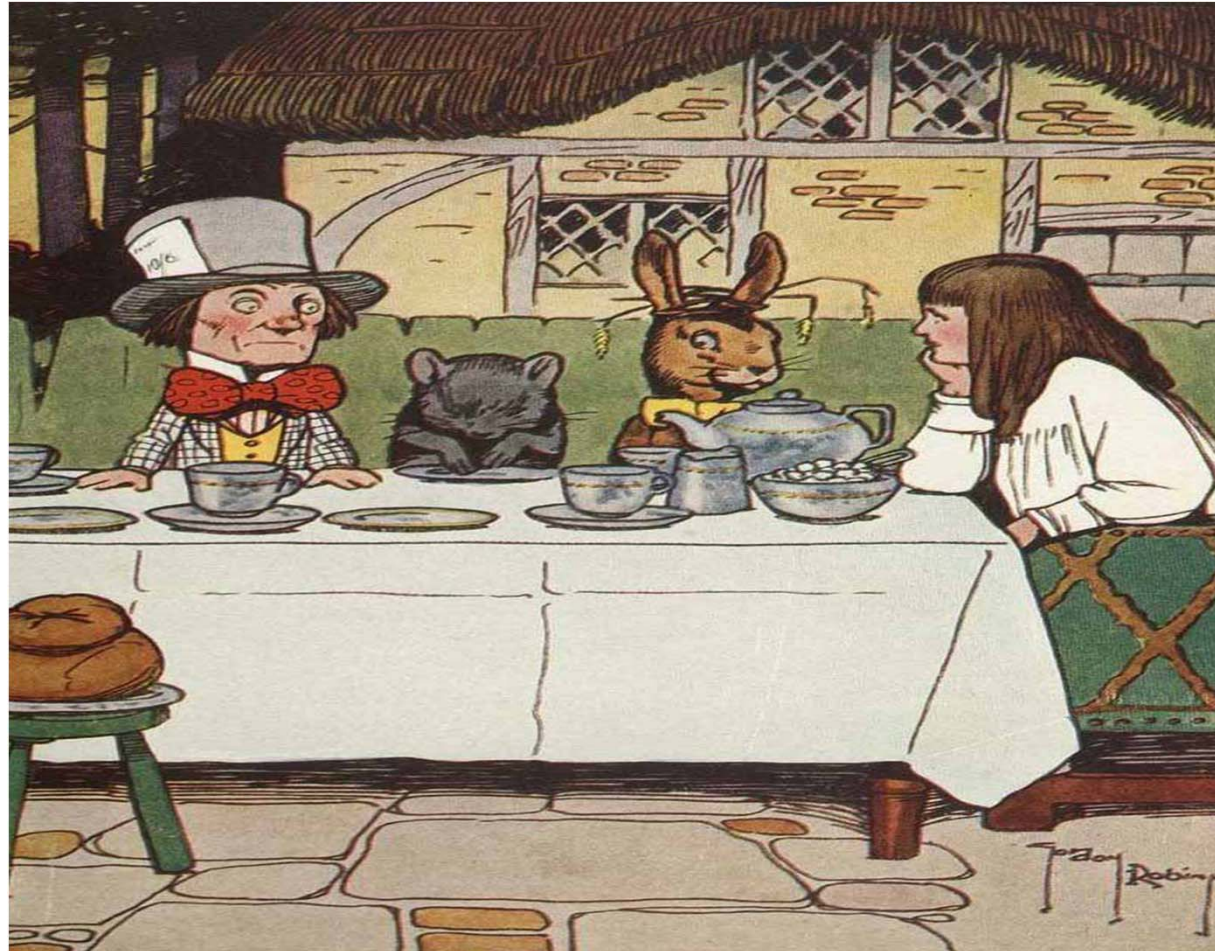# Put it into practice….
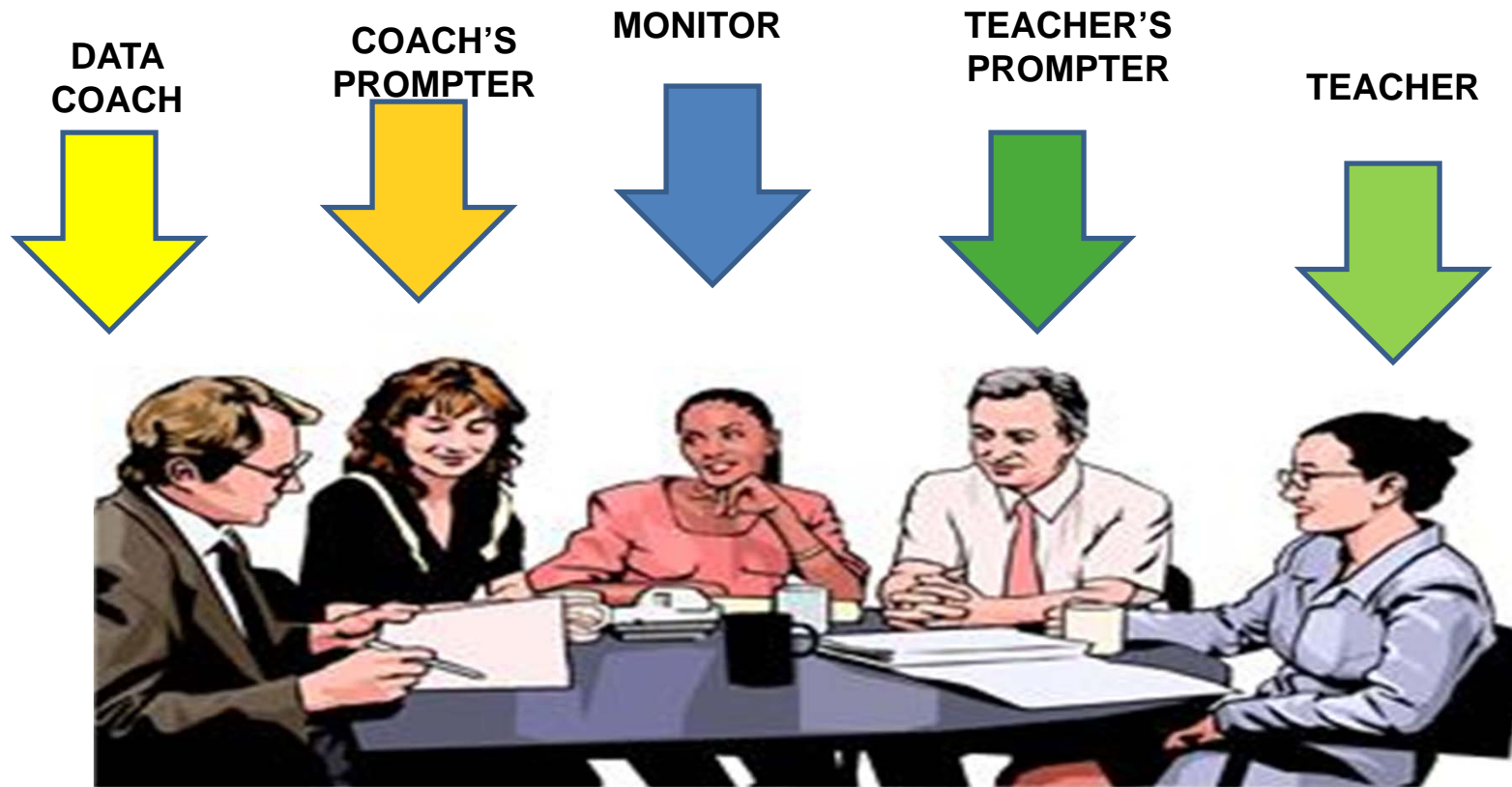
Alternative setup..
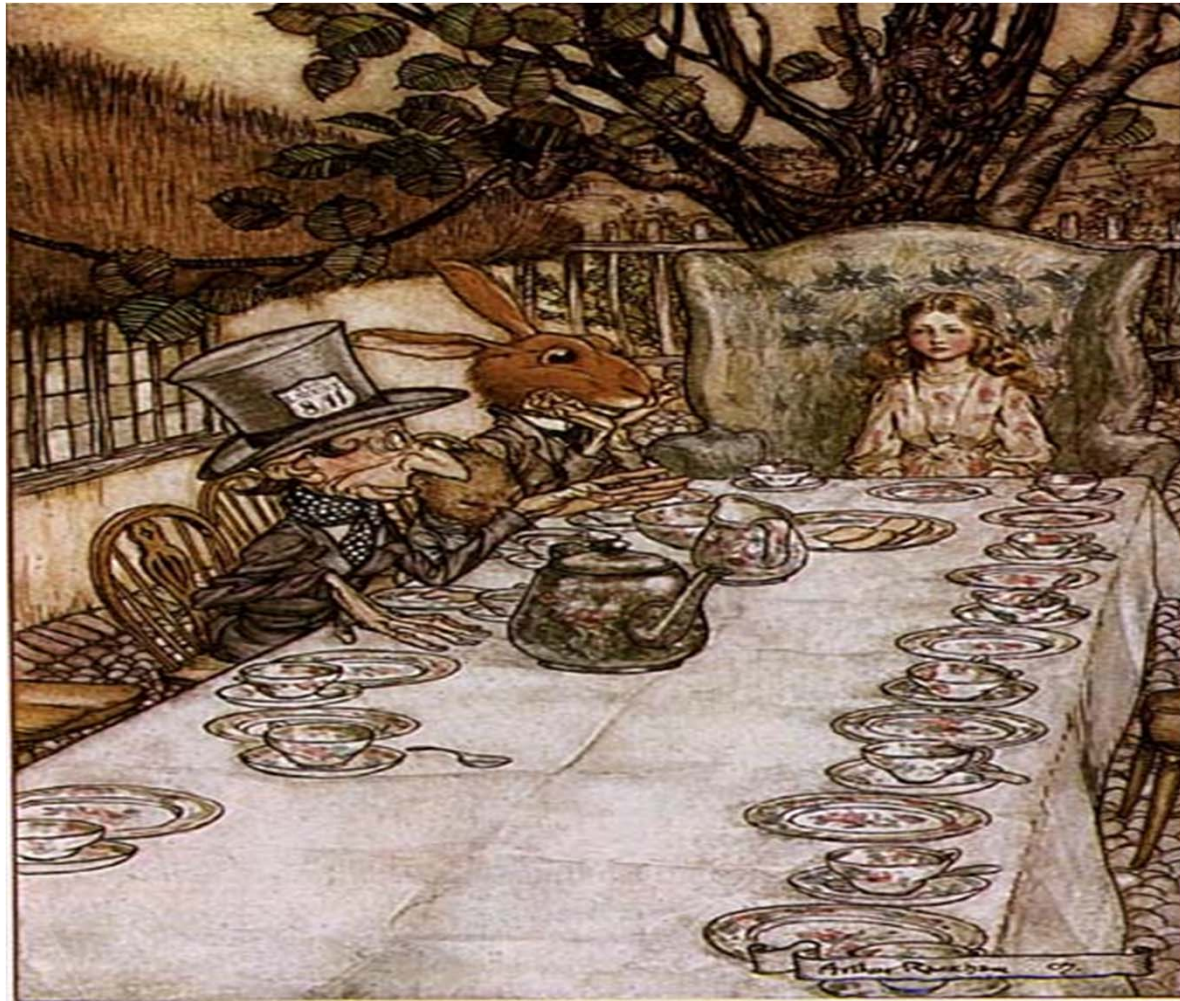
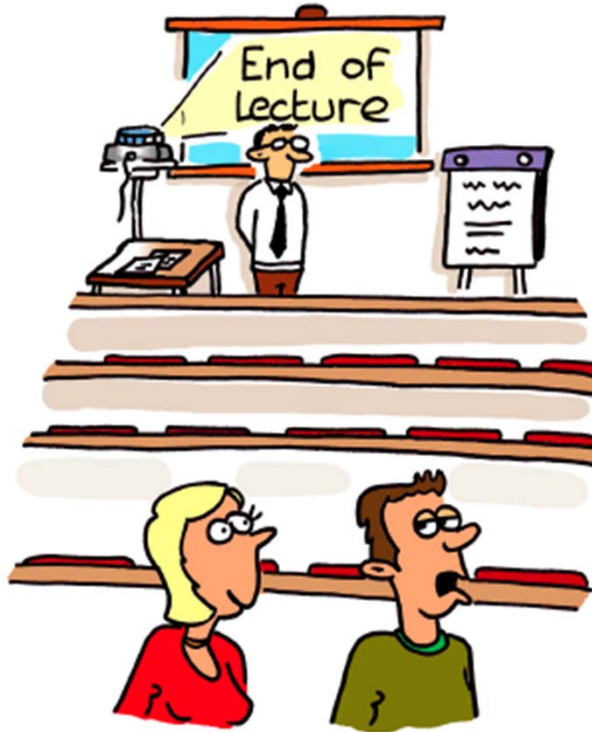# START!

ROTATE!

ROTATE!

ROTATE!

ROTATE!

Reflection
and
Process Debrief

Any Questions?

"He always allows time for questions. Someday he'll allow time for answers."

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