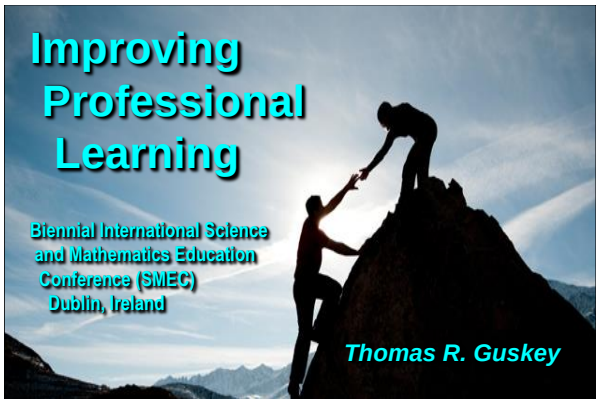
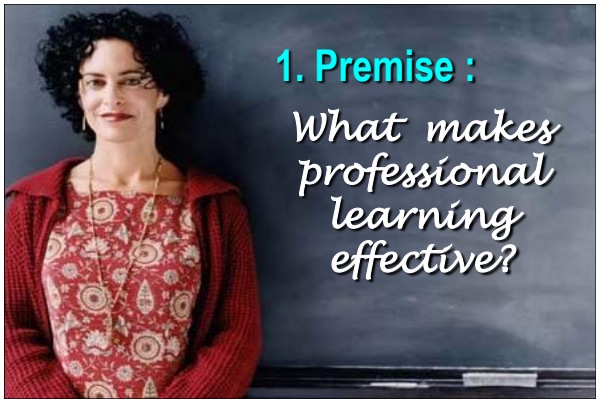
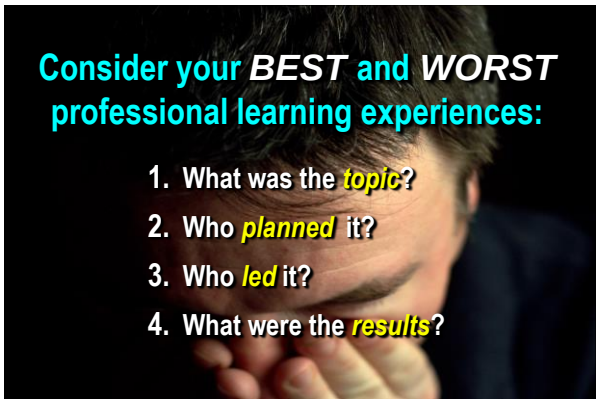

Improving Professional Learning
Biennial International Science and Mathematics Education Conference (SMEC) Dublin, Ireland
Thomas R. Guskey


Topics:
1. Premise for improvement
2. The bad news
3. The good news
4. Implications


1. Premise :
What makes professional learning effective?

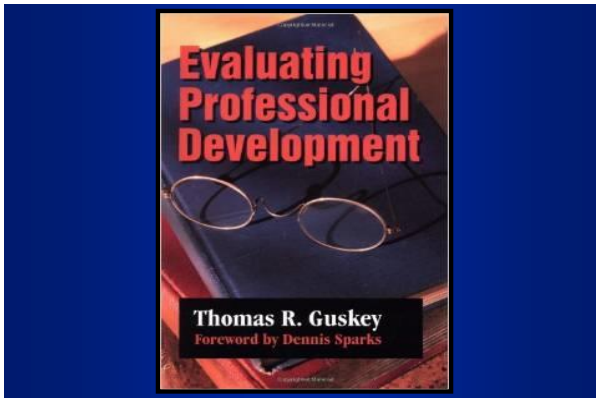


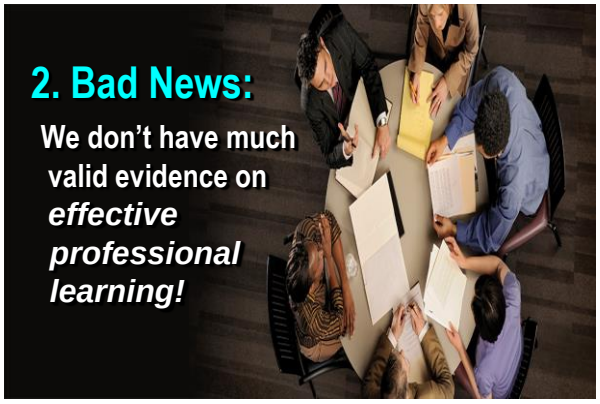
Five Levels of Professional Learning *Evaluation:*

1. Participants' *reactions* to the experience
2. Participants' *learning* from the experience
3. Organization *support & change*
4. Participants' *use* of new knowledge & skill
5. Results: *Student Learning Outcomes*

Five Levels of Professional Learning *Planning:*

5. Results: *Student Learning Outcomes*
4. Research-based *Practices and Strategies*
3. Necessary *Organization Support and Change*
2. Essential participant *Knowledge and Skills*
1. Effective *Professional Learning Experiences*





"Summary of Research on the Effectiveness of Math Professional Development Approaches"

Gersten, R., Taylor, M. J., Keys, T. D., Rolfhus, E., & Newman-Gonchar, R. (2014). *Summary of research on the effectiveness of math professional development approaches.* (REL 2014–010). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory.

Design:

1. ***910 research studies*** *of the effectiveness of professional development in math.*

2. ***Selection criteria*****:** U.S. Department of Education "What Works Clearinghouse" Evidence Standards (Version 2.0).

Findings:

1. Only ***5 studies*** met the selection criteria.
   - **2 found positive effects on students' math proficiency**
     - Intensive math content courses accompanied by follow-up workshops (McMeeking, Orsi, & Cobb, 2012)
     - Lesson study focused on linear (measurement) model of fractions (Perry & Lewis, 2011)
   - **1 found limited effects**
     - Cognitively Guided Instruction (Carpenter, Fennema, Peterson, Chiang, & Loef, 1989; Jacobs, Franke, Carpenter, Levi, & Battey, 2007)
   - **2 found no discernable effects**
     - America's Choice (Garet et al., 2010, 2011)
     - Pearson Achievement Solutions (Garet et al., 2010, 2011)

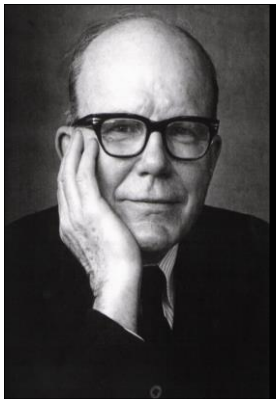
Conclusion from Gersten et al., (2014):

"There is very limited causal evidence to guide districts and schools in selecting a math professional development approach or to support developers' claims about their approaches."

Further Good News:

*"No improvement effort in education has **ever** succeeded in the absence of significant professional development."*

Guskey (2000)



More Good News:

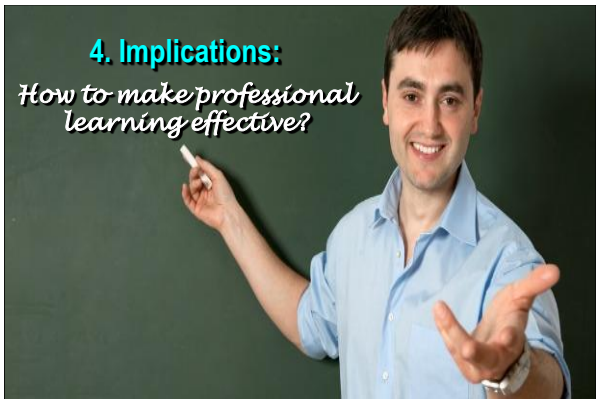
These ideas are not new!

- ✓ Ralph W. Tyler
- ✓ *Basic Principles of Curriculum and Instruction* (1949)
- ✓ Two Fundamental Decisions:
  - A. What do I want students to learn?
  - B. What evidence would I accept to verify their learning?

Begin with the end in mind!

What *student learning goals* do you want to achieve?

What *evidence (data)* best reflects those goals?



1. Begin with a clear focus on *learning* and *learners!*

Clear goals help mobilize ***everyone*** and keep efforts ***on task!***

Clear goals prevent distraction by peripheral issues that ***waste crucial time*** and ***divert energy!***

2. Engage in ***rigorous self-analysis!***

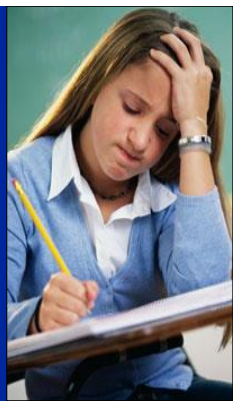
Self-Analysis requires:

1. ***Courage*** to ask tough questions.
2. ***Skill*** to find honest answers.

Reaching your ***goals*** requires a clear sense of ***where you are***.

We must continually ask:

1. Who is not learning?
2. Why?
3. What can we do about it?



3. Recognize change is an ***individual*** and ***organizational*** process.

Stages of Concern

1. Personal
2. Management
3. Impact

From: Hall, G., Wallace, R. & Dossett, W. (1973). *A developmental conceptualization of the adaptation process within educational institutions*. Austin, TX: Research and Development Center for Teacher Education, University of Texas.

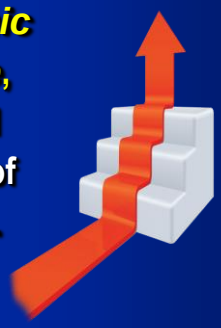
Order of Change

- ➔ Teacher Attitudes and Beliefs
- ➔ Teaching Practices
- ➔ Student Learning

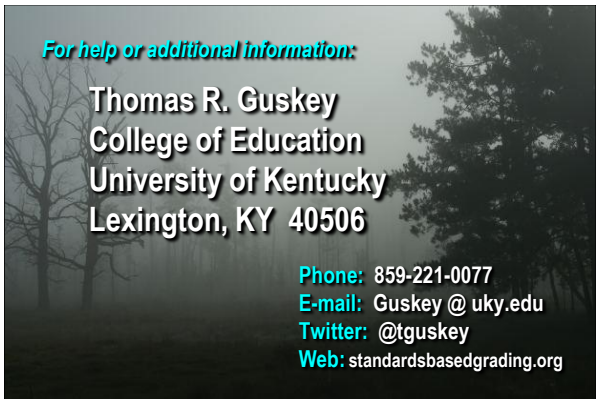
From: Guskey, T. R. (1986). Staff development and the process of teacher change. *Educational Researcher, 15(5), 5-12.*

4. Think *big,* but start *small!*

Change is *dynamic* and *large scale,* but implemented through a series of *smaller steps*.



5. Provide follow-up, support, and *pressure!*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