

# Evaluation as Warranted Claims

Edith Gummer  
Classroom-Focused Research and  
Evaluation

# Rigorous Review of Professional Development Literature

Yoon, K.S, Duncan, T., Lee, S. Scarloss, B., and. Shapley, K.S. (2007). *Reviewing the Evidence on How Teacher Professional Development Affects Student Achievement. Issues and Answers Report, REL 2007 – No. 033.* Washington, D.C.: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Southwest, 2007.

<http://ies.ed.gov/ncee/edlabs>

Guskey, T.R. and Yoon, K.S. (2009). What Works in Professional Development? *Phi Delta Kappan*, 90 (7) 495-500.

# What Works?

- All of the studies that showed positive relationship between professional development and student achievement involved *workshops* or *summer institutes*.
- *Outside experts* not train the trainers, peer coaching, collaborative problem solving or other forms of school-based professional learning – BUT CAVEAT

# What Works

- *Time* - >30 hours
- *Follow-up* – just in time, job-embedded
- *Activities* – no “best practices” but dependent on the specific content involved, the nature of the work, and the context
- *Content* – enhancing teacher content knowledge and pedagogic content knowledge

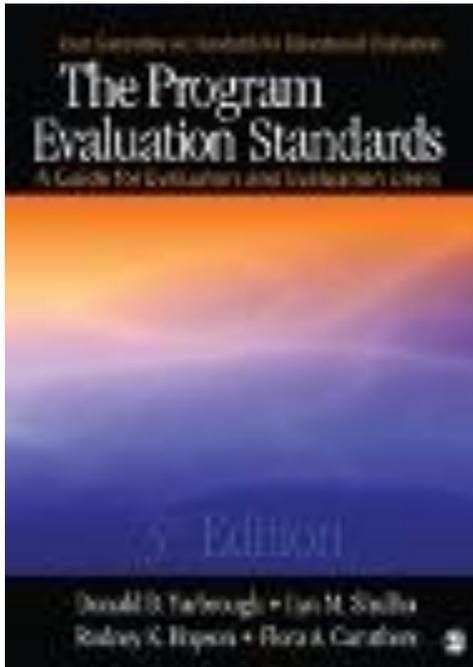
# What is the Evidence?

- Professional development has the characteristics that have been identified to be effective?
- Most professional development projects do not develop sufficiently rich descriptions of what they are doing so they could be replicated.

# Guskey Evaluation Framework

- Guskey, T.R. (2000). *Evaluating Professional Development*. Thousand Oaks, CA: Corwin Press
  - Perceptions
  - Knowledge
  - Practices
  - Evidence of institutional support
  - Impacts on student achievement

# Standards for Program Evaluation



Yarbrough, D. B., Shulha, L. M., Hopson, R. K., and Caruthers, F. A. (2011). *The program evaluation standards: A guide for evaluators and evaluation users* (3rd ed.). Thousand Oaks, CA: Sage

# Standards

- Utility – does the evaluation serve the information needs of intended users?
- **Feasibility** – is the evaluation realistic, prudent, diplomatic and frugal?
- Propriety – was the evaluation conducted legally, ethically, and with due regard for the welfare of those involved?
- Accuracy – does the evaluation reveal technically adequate information about important features?
- Accountability – does the evaluation address quality control measures?

# HECB Program Goals as Context

- Align the work of the Higher Education Coordinating Board (HECB) with other agencies that share the responsibility for teacher training and professional development;
- Improve communication and collaboration between education sectors with a particular focus on faculties in K-12, community colleges, and baccalaureate institutions;
- **Provide sustained, intensive, high quality professional development in three key college readiness areas—math, science, and English; and**
- **Create professional development opportunities that are cumulative and begin a pathway toward higher level degrees and credentials**

# What Kinds of Data in the 2009 WA Title IIA Proposals?

- Participation
- Teacher perceptions – self report surveys
- Teacher content knowledge
- Teacher practices
- Documentation of learning activities
- Principal learning and practice
- Student perceptions – self report surveys
- Student achievement

## How Common are These?

# What Might Be **Common Data Sources?**

- Teacher beliefs and practices?
- Teacher content knowledge?
- Student attitudes?
- Student content knowledge?
- Student course taking patterns?
- Student graduation rates?
- Student matriculation in programs?
- Disaggregated data?

# Importance of Student Achievement

- Central to federal program reporting mechanisms
- More sophisticated data sets with the WA Educational Research and Data Center
- Need for pre-planning
  - Human Subjects
  - Technical characteristics of data sets
- Link with school/district assessment processes – benchmark, formative, interim

# How Might Common Data Sources Be Encouraged?

- Included in the Request for Proposals
  - Title IIB Mathematics and Science Program
- Collaboration across projects to determine common goals and outcomes

# What do Stakeholders Want to Know?

- HECB Title IIA Program Goals

Vs

- Project Goals

# Commonalities

- Across goals?
- Across outcomes?
- Across evidence?

How can we find these?

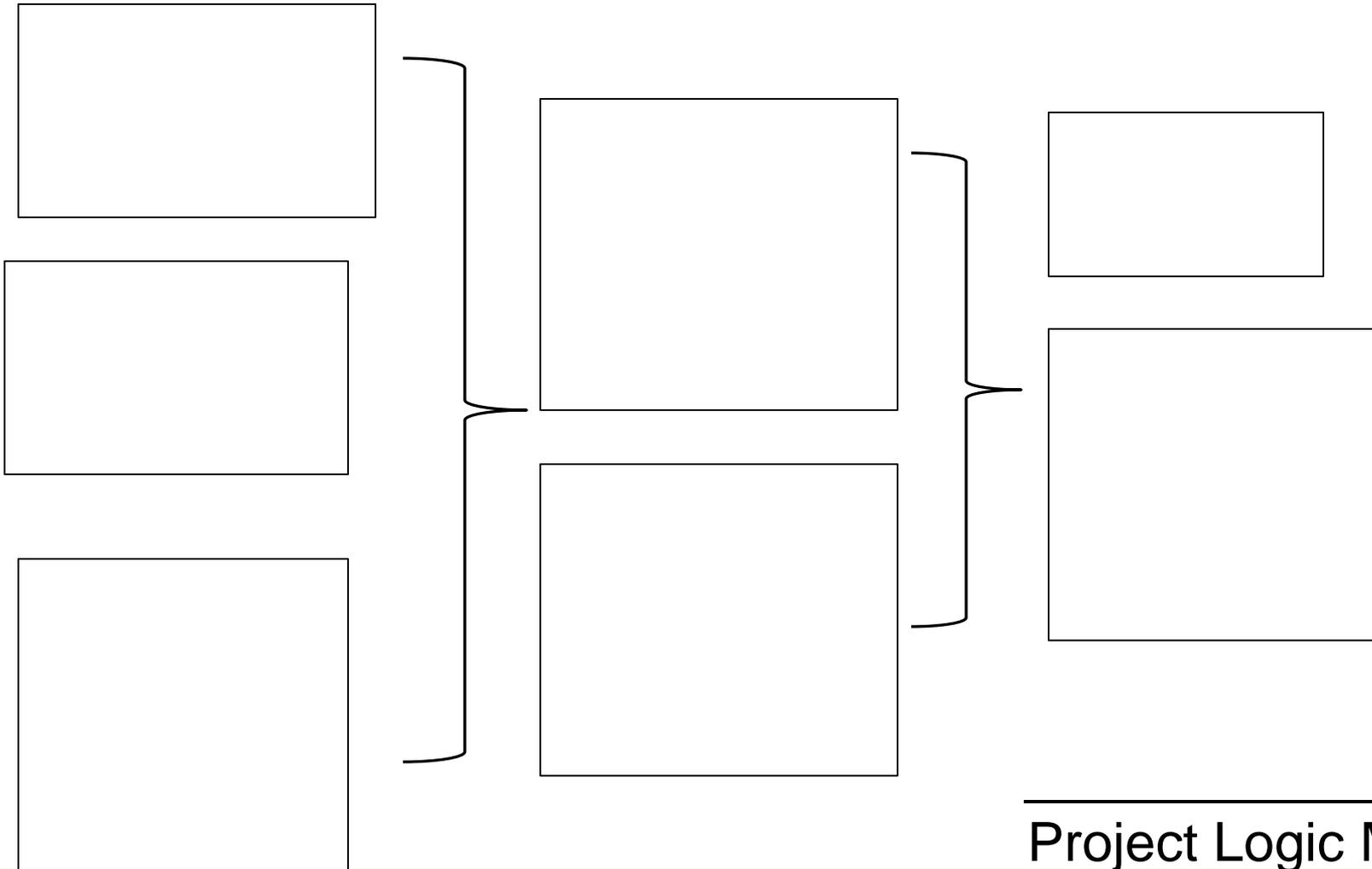
# Back to First Principles

- Logic Models
  - Resources/Inputs
  - **Goals/Objectives**
  - Program Activities
  - Outputs
  - Outcomes
  - Evidence
  - Analysis

Goals

Outcomes

Evidence



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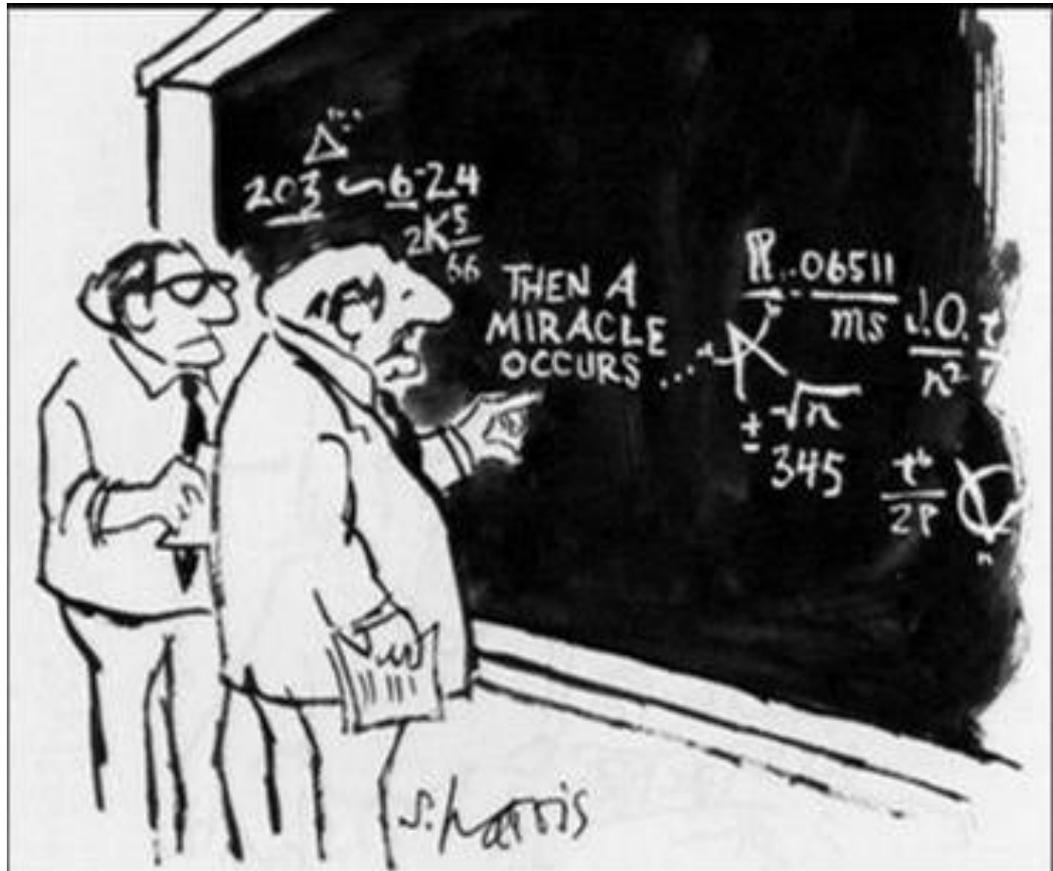
Project Logic Model

# An Exercise

- Talk to the person in front of you or behind you
- Ask him/her about the recent goals for a professional development project he/she implemented or participated
- What evidence was collected?
- What is common?
- What is different?

# Websites for Logic Models

- W. K. Kellogg Foundation  
<http://www.wkkf.org/knowledge-center/resources/2010/Logic-Model-Development-Guide.aspx>
- Office of Juvenile Justice and Delinquency Prevention  
[http://www.ojjdp.gov/grantees/pm/logic\\_models.html](http://www.ojjdp.gov/grantees/pm/logic_models.html)



"I think you should be more explicit here in step two."

# Finding Instruments

- Google “professional development surveys” and get about 556.000 results (0.33 seconds)
- Online Evaluation Resource Library  
<http://oerl.sri.com/> But.....
- American Evaluation Association  
<http://www.eval.org/Resources/instruments.asp>
- Ask a REL  
<http://educationnorthwest.org/service/593>

# Decisions, Decisions

- Design your own
  - Reliability at a minimum
  - Validity as a complex process
- Use someone else's
  - Reliability in your context or within your use
  - Validity as a complex process
- Reinvent the wheel or use something that barely fits your context

# Partial List of Instruments

- Math and Science Observation Instrument
  - Reformed Teaching Observation Protocol (RTOP) – AZ CEPT  
[http://physicsed.buffalostate.edu/AZTEC/RTO P/RTOP\\_full/](http://physicsed.buffalostate.edu/AZTEC/RTO P/RTOP_full/)
  - Classroom Observation Protocol (COP) - Horizon Research <http://www.horizon-research.com/instruments/clas/cop.php>

# Surveys of Teacher Practice and Beliefs

- Survey of Enacted Curriculum
  - K-12 Mathematics
  - K-12 Science
  - K-12 English Language Arts

<http://seconline.wceruw.org/secWebHome.htm>

# Teacher Content Knowledge

- Diagnostic Teacher Assessment in Mathematics and Science (DTAMS) [http://louisville.edu/education/research/centers/crmstd/diag\\_sci\\_assess\\_middle\\_teachers.html](http://louisville.edu/education/research/centers/crmstd/diag_sci_assess_middle_teachers.html)
- Misconception-Oriented Standards-Based Assessment - [http://www.cfa.harvard.edu/smgphp/mosart/about\\_mosart.html](http://www.cfa.harvard.edu/smgphp/mosart/about_mosart.html)
- Assessing Teacher Learning about Science Teaching (ATLAST) <http://www.horizon-research.com/atlast/>

# Instructional Documentation

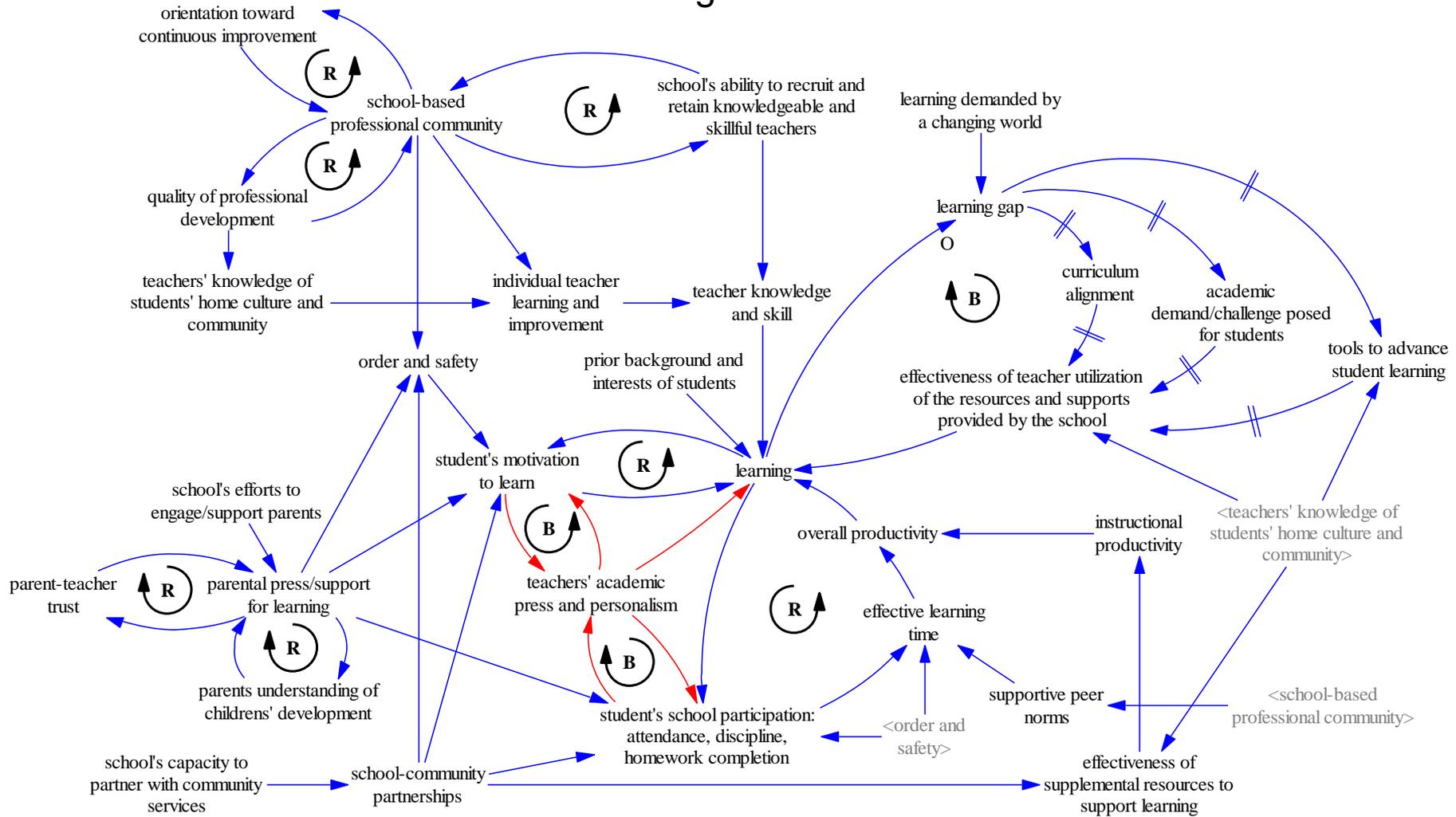
- SCOOP Notebook

<http://www.cse.ucla.edu/products/reports/R707.pdf>

# New Directions

- Work with E3 Washington (Education, Environment, Economy) – Education for Sustainable Communities  
<http://www.e3washington.org/>
- National Science Foundation Mathematics and Science Partnership grant proposal
- Systems dynamic modeling of school change in which professional development is embedded – Paul Newton, Boeing

# Classroom Black Box, Instructional Guidance, Professional Capacity, Parent-Community School Ties, and Student-Centered Learning Climate



# Questions and Comments

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