



# STAAR

Supporting the Transition from Arithmetic  
to Algebraic Reasoning

## Teacher Learning and Professional Development: A Situated Perspective

Hilda Borko

<http://www.colorado.edu/education/staar>



# STAAR: Supporting the Transition from Arithmetic to Algebraic Reasoning

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# Conceptual Framework

## Professional Knowledge for Teaching

- Professional development content

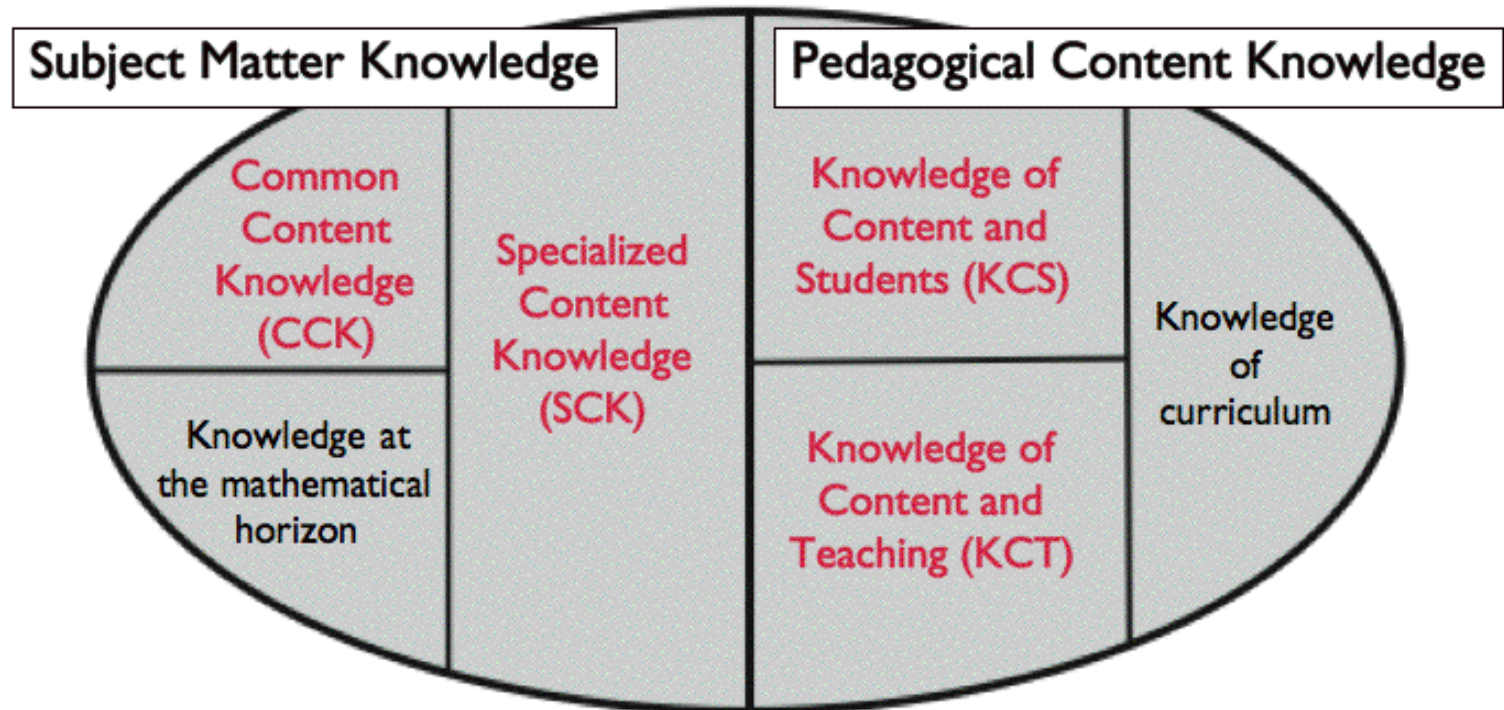
## Situative Perspective on Teacher Learning

- Professional development process



# Professional Knowledge for Teaching

## Shulman's Original Category Scheme (1985) Compared with Ours



Ball, D. (2006). Shulman's original category scheme (1985) compared with ours. Presented by Deborah Ball, Hyman Bass, Laurie Sleep, & Mark Thames (March 10, 2006) at the Eighth Annual Chicago Symposium Series on Excellence in Teaching Mathematics and Science: Research and Practice, Chicago, IL.

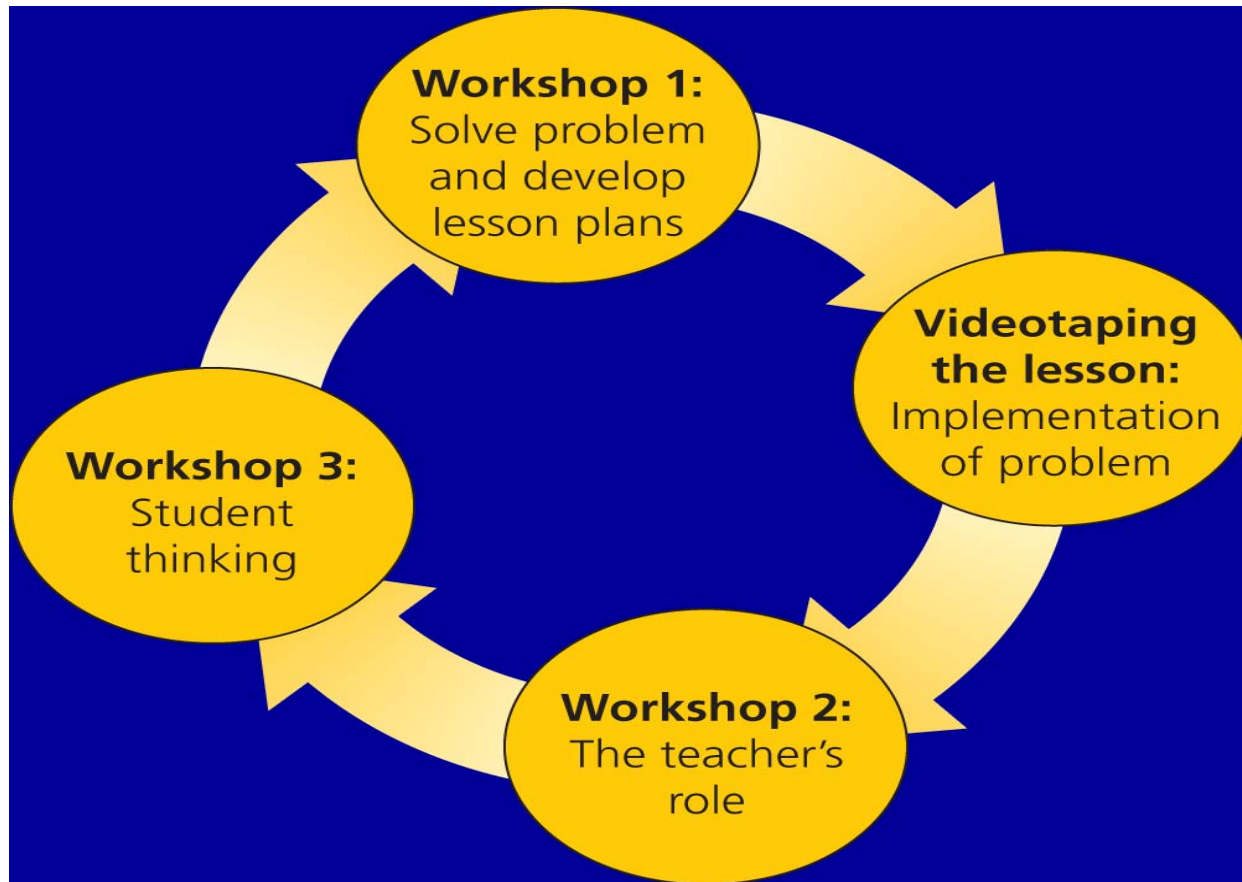


# Situative Perspective on Teacher Learning

- Teacher learning
  - a social process
  - situated in social and cultural contexts
- Tools for teacher learning
  - Professional learning communities
  - Artifacts of practice
- Community around video



# The Problem-Solving Cycle

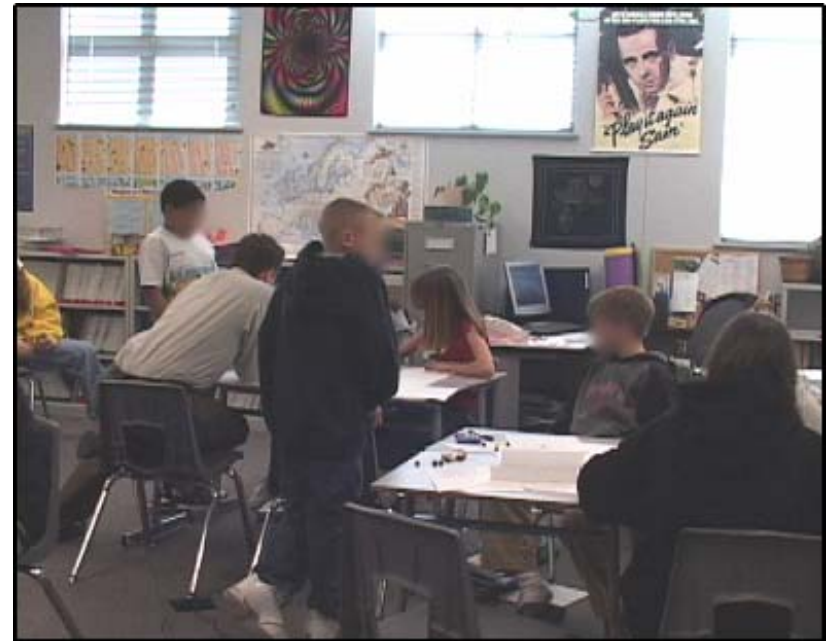




# Workshop 1: Doing for Planning



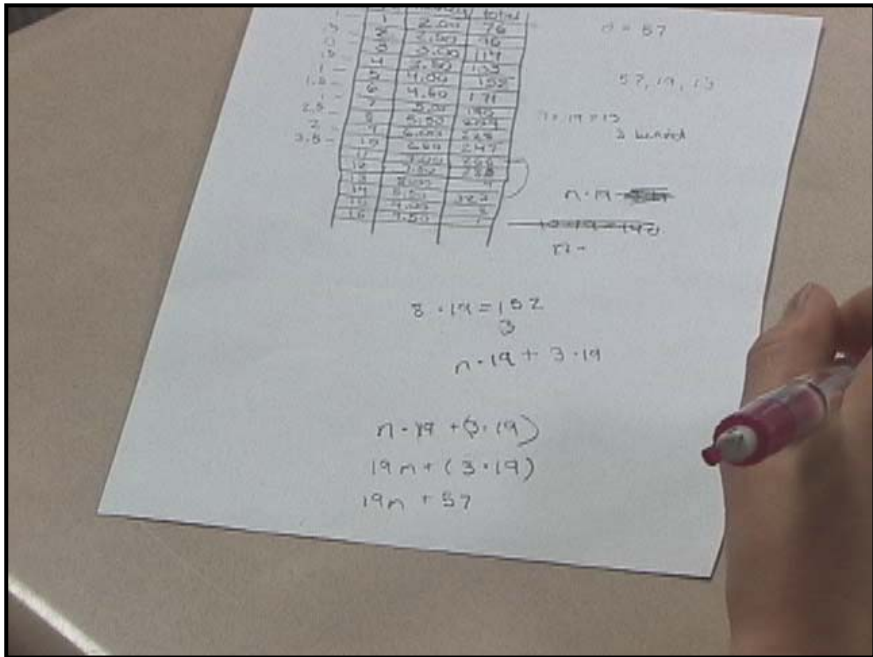
**Solving the problem**



**Teaching the lesson**



# Workshop 2: The Teacher's Role



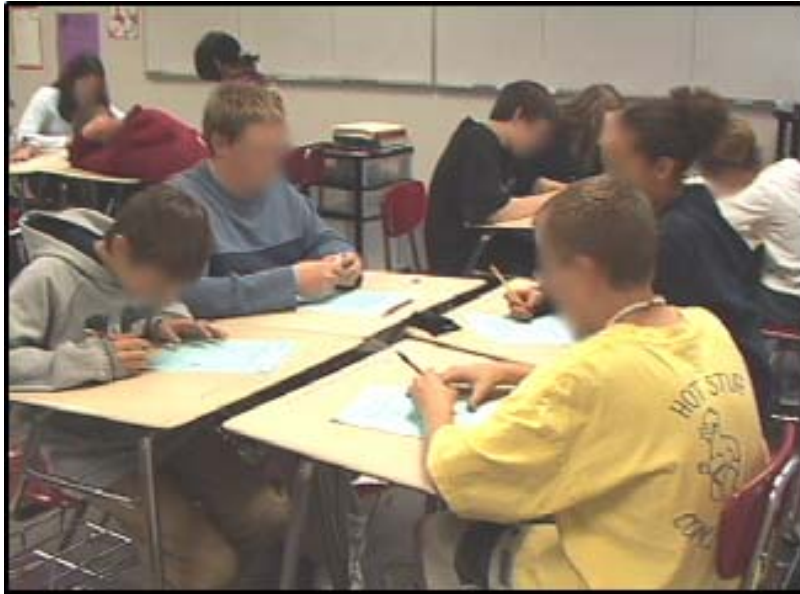
Student work



Discussing the video



# Workshop 3: Student Thinking



**Small group work**



**Reconsidering the problem**



# Goals, Activities, and Knowledge Foregrounded in Each PSC Workshop

Workshop	Goals	Activities	Knowledge
1	Develop content knowledge to teach the PSC problem	Solve problem, debrief strategies Plan lesson	Specialized content Pedagogical content
2	Analyze teacher's role	Analyze video, focusing on the teacher's role	PCK (content & teaching)
3	Analyze student thinking	Analyze video, focusing on student thinking	PCK (content & students)



# Research on the PSC

- Nature of the PD
  - Description of the PSC model
  - Use of video to foster conversations
- Impact of the PSC
  - On knowledge
  - On instructional practices
- Scaling up (Facilitator's Guide)



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