Teacher Learning and Professional Development: A Situated Perspective

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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

Subject Matter Knowledge
- Common Content Knowledge (CCK)
- Specialized Content Knowledge (SCK)
- Knowledge at the mathematical horizon

Pedagogical Content Knowledge
- Knowledge of Content and Students (KCS)
- Knowledge of Content and Teaching (KCT)
- Knowledge of curriculum

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:** Solve problem and develop lesson plans
- **Workshop 2:** The teacher’s role
- **Workshop 3:** Student thinking
- **Videotaping the lesson:** Implementation of problem
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

<table>
<thead>
<tr>
<th>Workshop</th>
<th>Goals</th>
<th>Activities</th>
<th>Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Develop content knowledge to teach the PSC problem</td>
<td>Solve problem, debrief strategies Plan lesson</td>
<td>Specialized content Pedagogical content</td>
</tr>
<tr>
<td>2</td>
<td>Analyze teacher’s role</td>
<td>Analyze video, focusing on the teacher’s role</td>
<td>PCK (content &amp; teaching)</td>
</tr>
<tr>
<td>3</td>
<td>Analyze student thinking</td>
<td>Analyze video, focusing on student thinking</td>
<td>PCK (content &amp; students)</td>
</tr>
</tbody>
</table>
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)