On the Possibility of Modeling Teacher Learning Progressions in Classroom-Based Formative Assessment: An Evidence Centered Design Approach

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Three challenges

• Defining “formative assessment”
  – Domains vs. constructs
  – General vs. subject specific

• Agreeing on “high leverage”, “evidence based” constructs in the FA space

• Using a method for modeling teacher growth
  – Evidence centered design
Defining the “FA domain”

On separating the purposes and uses of classroom DATA

Courtesy of Validity Partners, LLC
21st Century Dilemma: Got Data on Teachers?

- Increasingly we are asked to develop “quality” outcomes for K-12 system
- Policymakers have had mixed results trying to bring coherence, meaning and consistency to their accountability systems
- The concern for how to collect “big” “standardized” or “value added” data has often been at the expense of building assessment literacy, teacher capacity and actionable feedback to drive change

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Traditionally...

A Great Divide

Classroom based assessment
“local data”

Large scale testing
“systems data”

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In the U.S. context

- What “data” teachers value in the classroom is **different from the kinds** that external evaluators and test-makers value.

- Teachers tend to value **formative assessment for learning**, while the “outsiders” tend to focus on **summative outcomes of learning**.

- Rarely do the **two purposes of assessment converge** or do stakeholders agree on what counts.
Two perspectives on data use in U.S. classrooms and schools

**Formative**
- Process
- On-going
- During instruction
- More qualitative information about learning
- Feedback & revision

**Summative**
- Product
- End result
- After instruction has occurred
- Focused on points, scores, numbers, etc.
- Ranking & grades

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For those who value formative assessment data and practices

An assessment activity is formative *if it can help learning by providing information to be used as feedback*—by teachers and by their students—in assessing themselves and each other, to modify the teaching and learning activities in which they are engaged.

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Why *formative assessment*?

“There is a body of firm evidence that formative assessment is an essential component of classroom work and that its development can raise standards of achievement. We know of no other way of raising standards for which such a strong ...case can be made.”

(Black & Wiliam, 1998)
Hattie found (2009):

• Top 3 out of 138 educational influences on learning

• *Formative assessment* is a “high leverage” teaching AND assessment practice

• We have hard data that soft data in the classroom matters

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But question remains: What is FA for teachers?
Teachers who practice assessment for learning know and can

- understand and articulate in advance of teaching the achievement targets that their students are to hit;
- inform their students about those learning goals, in terms that students understand;
- translate classroom assessment results into frequent descriptive feedback that helps students improve;
- adjust instruction continuously based on the results of classroom assessments.

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The 2014 Testing Standards say

“Formative assessment is an assessment process used by teachers and students during instruction that provides feedback to adjust ongoing teaching and learning with the goal of improving students’ achievement of intended instructional outcomes”---AERA, APA, NCME (2014)
After two decades

It’s time to realize that formative assessment is more than...

✓ A checklist of qualities

✓ A collection of activities

✓ A list of Standards-based “to do’s”
IDENTIFYING HIGH LEVERAGE TEACHING AND ASSESSMENT PRACTICES

On uniting teaching and assessment practices in classroom contexts

Courtesy of Validity Partners, LLC
What are “high leverage” teaching practices?

1. Leading a group discussion
2. Explaining and modeling content, practices, strategies
3. Eliciting and interpreting individual students’ thinking
4. Diagnosing particular common patterns of student thinking and development in a subject-matter domain
5. Implementing norms and routines for classroom discourse and work
6. Coordinating and adjusting instruction during a lesson

These are formative assessment “moves”
Reframing FA

The moves-based framing involves a new, intuitive language:

– Preparing the groundwork (Priming)
– Using an effective range of questions (Posing)
– Giving students adequate time to think and respond (Pausing)
– Asking follow-up questions that deepen student understanding (Probing)
– Sampling on a variety of responses (Bouncing)
– Representing variation in student thinking (Tagging)
– Seeing patterns and taking “Next Steps” (Binning)
*FA moves* are active **trajectories of high leverage teaching practice**, used in combination, by students & teachers, to launch, monitor and adjust learning **during the lesson**...
On the lesson of evidence centered design for constructing measures

USING A METHOD FOR MEASURING & MODELING TEACHER GROWTH

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Research shows that monitoring student learning during instruction varies. Novice teachers pose closed ended questions, call on first hand in the air, look to “eager beavers,” and ignore and/or fail to uncover student thinking. Expert teachers frame open ended, probative questions, allow sufficient wait time, systematically use response routines to increase participation, and anticipate student thinking patterns and welcome unexpected ones.

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We can hypothesize about teachers’ progress with FA practices over time.
But remember, beginning teachers are…

- Pitching a line of ascent—lesson by lesson, unit by unit of instruction
- Trying out new footholds, grabbing fixed lines, and putting on their crampons
- Stuck in seracs, crevasses and whiteouts
- Hoping to go from base camp to the summit and back day by day