Taking Assessment for Learning to scale

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OECD CERI 40th anniversary conference

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Overview of presentation

Why investing in teachers is important
Why assessment for learning should be the focus
Why teacher learning communities should be the mechanism
How we can put this into practice
School effectiveness

Three generations of school effectiveness research

- Raw results approaches
  - Different schools get different results
  - Conclusion: Schools make a difference

- Demographic-based approaches
  - Demographic factors account for much of the variation
  - Conclusion: Schools don’t make a difference

- Value-added approaches
  - School-level differences in value-added in most countries are relatively small
  - Classroom-level differences in value-added are large
  - Conclusion: An effective school is a school full of effective classrooms
Teacher quality

What causes classroom level differences?

- Weak influences
  - class size
  - between- and within-class grouping strategy

- Strong influence
  - Teacher quality

A labour force issue with 2 (non-exclusive) solutions

- Replace existing teachers with better ones?
  - Important, but very slow, and of limited impact

- Improve the effectiveness of existing teachers
  - The “love the one you’re with” strategy
  - It *can* be done
    - Provided we focus rigorously on the things that matter
    - Even when they’re hard to do
The ‘dark matter’ of teacher quality

Teachers make a difference
But what makes the difference in teachers?

<table>
<thead>
<tr>
<th>Advanced content matter knowledge</th>
<th>&lt;5%</th>
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<tbody>
<tr>
<td>Pedagogical content knowledge</td>
<td>10-15%</td>
</tr>
<tr>
<td>Further professional qualifications (MA, NBPTS)</td>
<td>&lt;5%</td>
</tr>
<tr>
<td><strong>Total “explained” difference</strong></td>
<td><strong>20-25%</strong></td>
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The research evidence for AfL

Several major reviews of the research

- Natriello (1987)
- Crooks (1988)
- Kluger & DeNisi (1996)
- Black & Wiliam (1998)

All find consistent, substantial effects
In real classrooms, over extended periods, using distal measures of achievement, adoption of AfL practices increases student achievement by 0.3 standard deviations.

One standard deviation of increased teacher quality is associated with an increase of 0.2 sd of student achievement.

Therefore the range of teacher quality (4 sd) is associated with 0.8 sd of student achievement.

AfL practices would therefore seem to be equivalent to half of the “unexplained” difference.
Types of assessment for learning

**Long-cycle**
- Span: across units, terms
- Length: four weeks to one year
- Impact: Student monitoring; curriculum alignment

**Medium-cycle**
- Span: within and between teaching units
- Length: one to four weeks
- Impact: Improved, student-involved, assessment; teacher cognition about learning

**Short-cycle**
- Span: within and between lessons
- Length:
  - day-by-day: 24 to 48 hours
  - minute-by-minute: 5 seconds to 2 hours
- Impact: classroom practice; student engagement
Unpacking assessment for learning

Key processes
- Establishing where the learners are in their learning
- Establishing where they are going
- Working out how to get there

Participants
- Teachers
- Peers
- Learners
# Aspects of assessment for learning

<table>
<thead>
<tr>
<th></th>
<th>Where the learner is going</th>
<th>Where the learner is</th>
<th>How to get there</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Teacher</strong></td>
<td>Clarify and share learning intentions</td>
<td>Engineering effective discussions, tasks and activities that elicit evidence of learning</td>
<td>Providing feedback that moves learners forward</td>
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<td><strong>Peer</strong></td>
<td>Understand and share learning intentions</td>
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<td>Activating students as learning resources for one another</td>
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<td><strong>Learner</strong></td>
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<td></td>
<td>Activating students as owners of their own learning</td>
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</table>
Five “key strategies”…

Clarifying, understanding, and sharing learning intentions
※ curriculum philosophy

Engineering effective classroom discussions, tasks and activities that elicit evidence of learning
※ classroom discourse, interactive whole-class teaching

Providing feedback that moves learners forward
※ feedback

Activating students as learning resources for one another
※ collaborative learning, reciprocal teaching, peer-assessment

Activating students as owners of their own learning
※ metacognition, motivation, interest, attribution, self-assessment

(Wiliam & Thompson, 2007)
...and one big idea

Use evidence about learning to adapt teaching and learning to meet student needs
Keeping Learning on Track (KLT)

A pilot guides a plane or boat toward its destination by taking constant readings and making careful adjustments in response to wind, currents, weather, etc.

A KLT teacher does the same:
- Plans a carefully chosen route ahead of time (in essence building the track)
- Takes readings along the way
- Changes course as conditions dictate
Putting it into practice
Implementing AfL requires changing teacher habits

Teachers “know” most of this already
So the problem is not a lack of knowledge
It’s a lack of understanding what it means to do AfL
That’s why telling teachers what to do doesn’t work
Experience alone is not enough—if it were, then the most experienced teachers would be the best teachers—we know that’s not true (Hanushek, 2005; Day, 2006)
People need to reflect on their experiences in systematic ways that build their accessible knowledge base, learn from mistakes, etc. (Bransford, Brown & Cocking, 1999)
Teacher learning takes time

To put new knowledge to work, to make it meaningful and accessible when you need it, requires practice. A teacher doesn’t come at this as a blank slate.

- Not only do teachers have their current habits and ways of teaching—they’ve lived inside the old culture of classrooms all their lives: every teacher started out as a student!
- New knowledge doesn’t just have to get learned and practiced, it has to go up against long-established, familiar, comfortable ways of doing things that may not be as effective, but fit within everyone’s expectations of how a classroom should work.

It takes time and practice to undo old habits and become graceful at new ones. Thus...

- Professional development must be sustained over time
Designing for scale

“In-principle” scalability
A single model for the whole school
 Zodiac: But which honours subject-specificities
Understanding what it means to scale (Coburn, 2003)
 Zodiac: Depth
 Zodiac: Sustainability
 Zodiac: Spread
 Zodiac: Shift in reform ownership
Consideration of the diversity of contexts of application
Clarity about components, and the theory of action
A model for teacher learning

Content, *then* process

Content (what we want teachers to change)
- Evidence
- Ideas (strategies and techniques)

Process (how to go about change)
- Choice
- Flexibility
- Small steps
- Accountability
- Support
Two opposing factors in any school reform

Need for flexibility to adapt to local conditions, resources, etc
  
  * Implies there is appropriate flexibility built into the reform

Need to maintain fidelity to core principles, or *theory of action* of the reform, if it is to achieve desired outcomes
  
  * Implies you have a well-thought-out theory of action
“Tight but loose”

Some reforms are too loose (e.g., the ‘Effective schools’ movement)
Others are too tight (e.g., Montessori Schools)

The “tight but loose” formulation

... combines an obsessive adherence to central design principles (the “tight” part) with accommodations to the needs, resources, constraints, and particularities that occur in any school or district (the “loose” part), but only where these do not conflict with the theory of action of the intervention.
Why the why?

In many reforms, the *why* is non-existent, under-conceptualized, or not communicated well.

The Tight but Loose framework says:

- It is imperative to explicitly weave the *why* (the theory of action and research base) into the *what* and the *how*, so that end users understand it.

Without that knowledge, under inevitable local pressures and constraints, users will make implementation decisions that undercut the effectiveness of the reform.
Logic model for KLT

KLT COMPONENTS

1. Introductory Assessment for Learning and TLC Leader Workshops
2. On-going support from ETS consultants, peers, and an online community and materials
3. On-going monthly meetings that support and hold teachers accountable to make changes in their classroom

Teacher Outcomes

1. Teachers elicit evidence of student understanding.
2. Teachers identify and share learning intentions and criteria for success with their students.
3. Teachers provide structure and create opportunities for students to take ownership of their own learning.
4. Teachers provide structure and create opportunities to activate students as instructional resources for one another.
5. Teachers provide students with feedback that identifies what they need to do to improve

Student Outcomes

6. Teachers use evidence of learning to adapt instruction to meet students' immediate learning needs
7. Students are more engaged with the lesson, content, and activities
8. Students support each other and take responsibility for their own learning within shared frameworks
9. Students act on feedback to improve assignments

Improved student learning

(Leahy, Leusner & Lyon, 2005)
Strategies and techniques

Distinction between strategies and techniques
- Strategies define the territory of AfL (no brainers)
- Teachers are responsible for choice of techniques
  - Allows for customization/ caters for local context
  - Creates ownership
  - Shares responsibility

Key requirements of techniques
- Embodiment of deep cognitive/affective principles
- Relevance
- Feasibility
- Acceptability
Design and intervention

Our design process

cognitive/affective insights → synergy/comprehensiveness → set of components

Teachers’ implementation process

set of components → synergy/comprehensiveness → cognitive/affective insights
That’s what teacher learning communities (TLCs) are for:

**Teacher learning communities:**
- contradict teacher isolation
- reprofessionalize teaching by valuing teacher expertise
- deprivatize teaching so that teachers’ strengths and struggles become known
- offer a steady source of support for struggling teachers
- grow expertise by providing a regular space, time, and structure for that kind of systematic reflecting on practice
- facilitate sharing of untapped expertise residing in individual teachers
- build the collective knowledge base in a school
Summary

Raising achievement is important
Raising achievement requires improving teacher quality
Improving teacher quality requires teacher professional development
To be effective, teacher professional development must address

- What teachers do in the classroom
- How teachers change what they do in the classroom

AfL/FA + TLCs

- A point of (uniquely?) high leverage
- A “Trojan Horse” into wider issues of pedagogy, psychology, and curriculum