



Leading education
and social research
Institute of Education
University of London

Taking *Assessment for Learning* to scale

Dylan Wiliam

OECD CERI 40th anniversary conference

www.dylanwiliam.net



www.ioe.ac.uk



Leading education
and social research
Institute of Education
University of London

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?

Advanced content matter knowledge	<5%
Pedagogical content knowledge	10-15%
Further professional qualifications (MA, NBPTS)	<5%
Total “explained” difference	20-25%

The research evidence for AfL

Several major reviews of the research

- ⌘ Natriello (1987)
- ⌘ Crooks (1988)
- ⌘ Kluger & DeNisi (1996)
- ⌘ Black & William (1998)
- ⌘ Nyquist (2003)

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

	Where the learner is going	Where the learner is	How to get there
Teacher	Clarify and share learning intentions	Engineering effective discussions, tasks and activities that elicit evidence of learning	Providing feedback that moves learners forward
Peer		Activating students as learning resources for one another	
Learner		Activating students as owners of their own learning	

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



Leading education
and social research
Institute of Education
University of London

...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



Leading education
and social research
Institute of Education
University of London

Putting it into practice



www.ioe.ac.uk

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

⌘ But which honours subject-specificities

Understanding what it means to scale (Coburn, 2003)

⌘ Depth

⌘ Sustainability

⌘ Spread

⌘ 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*?

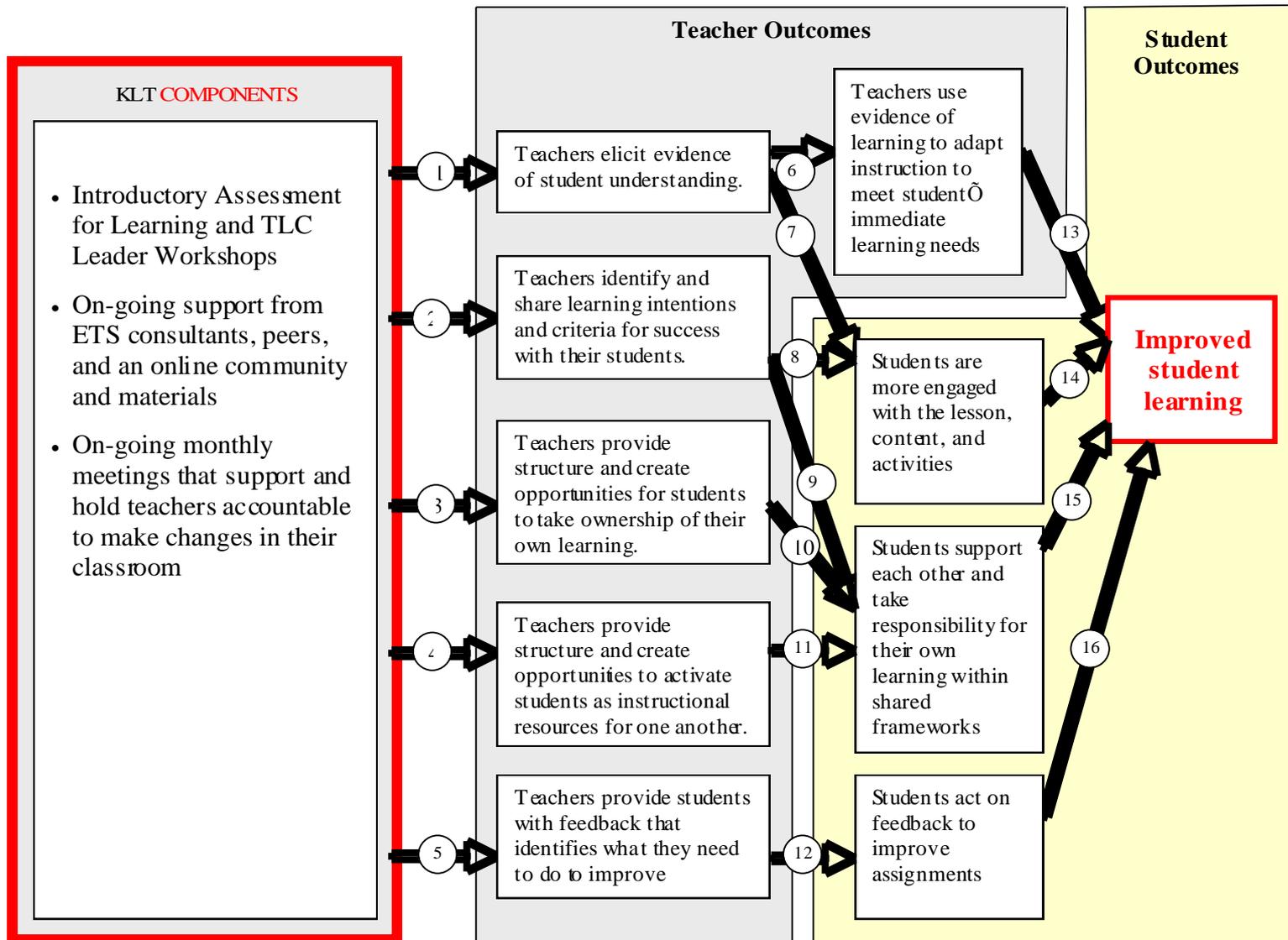
In many reforms, the *why* is non-existent, under-conceptualized, or not communicated well

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



Strategies and techniques

Distinction between strategies and techniques

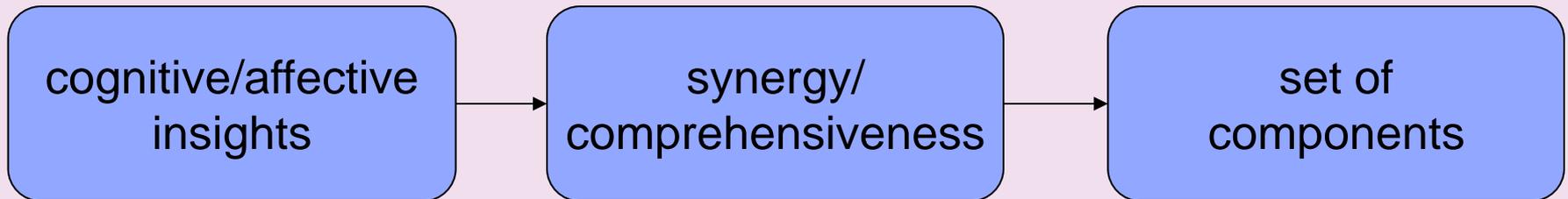
- ⌘ Strategies define the territory of AfL (no brainers)
- ⌘ Teachers are responsible for choice of techniques
 - ☒ Allows for customization/ caters for local context
 - ☒ Creates ownership
 - ☒ Shares responsibility

Key requirements of techniques

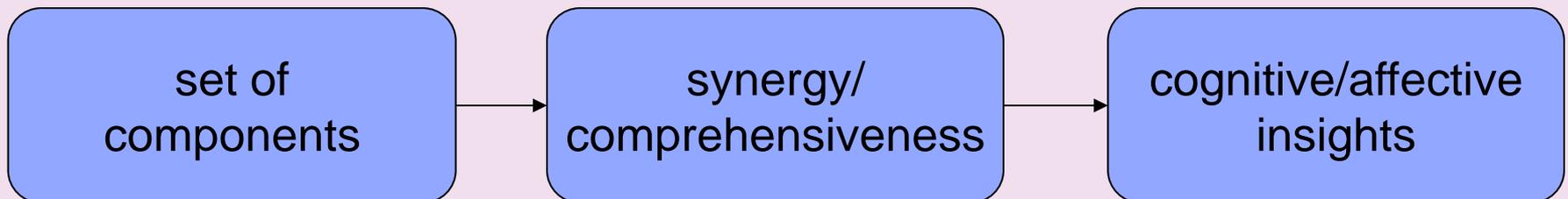
- ⌘ embodiment of deep cognitive/affective principles
- ⌘ relevance
- ⌘ feasibility
- ⌘ acceptability

Design and intervention

Our design process



Teachers' implementation process



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