Lesson Study: professional learning for our time

How and why Lesson Study can help to overcome longstanding and intractable barriers to teacher learning and school to school support

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What I will address in this keynote

• How humans learn (....probably)
• Challenges posed uniquely to teacher learning by features of teacher professional knowledge and practice
  • Explicate knowledge
  • Beliefs
  • Tacit knowledge
  • Practice Knowledge
  • Practical obstacles posed by school organisation
• Why Lesson Study helps to overcome these challenges
• Implications for teachers, principles and school systems – opportunities and challenges
Learning is....

- Social – we learn by joining in
- ‘Situated’ – linked to specific content in specific contexts
How humans learn (....probably)

But learning is very EFFORTFUL (Resnick)

So we stop when we have learned ‘just enough’

Subject (Learner)

Mediating activity scaffolding / teaching / tools

TALK (Safe)

Zone of Proximal Development

Object of Learning

...teachers typically stop learning three years into the job!!

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We learn by ‘joining in’

...with each other .....  

...and...

...with each others’ thinking and ideas...

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Vygotsky in 8 words

• We can ‘join in’ with the thinking of non-present people - reading
• We can ‘join in’ with our own imagined thoughts and actions – to develop/internalise ‘expert knowledge’
But teacher learning is a special case!
Challenge 1. Conscious teacher knowledge

- Children as learners (general)
- The specific children in front of you
  - Cognitive
  - Affective
- Subject
- Pedagogy
- The wider curriculum
Challenge 2: Teacher beliefs

- **Depth** of professional belief – hard to shift
- **Espoused v enacted** beliefs about practice
- Belief in the unique qualities of ‘**these children**’
- The enduring influence of ‘**folk pedagogy**’ or ‘**folk psychology**’ (Bruner) – knowledge can be ‘told’, ‘transmitted’
- ‘**Neuromyths**’
- Dismissive of hard evidence
Rank these 10 for research evidence ‘effect size’:

- Homework
- Acceleration of gifted students
- Computer assisted instruction
- Ability grouping
- Reducing disruptive behaviour in the class
- Individualized instruction
- Class size
- Teaching thinking skills
- Small group learning
- Feedback

(from 1 = lowest effect to 10 = highest effect)
Challenge 3: Tacit knowledge

- The swiftly flowing river of the classroom
- Speed
- Complexity
- Working memory (conscious thought) is overwhelmed
- So instead we rely on tacit knowledge systems to store most of our practice knowledge
The nature of tacit knowledge

Please spend two minutes with the person next to you creating a set of verbal instructions to help someone who is learning to ride a bicycle.

These instructions should enable the person to cycle without falling off!
‘Second nature’

‘I carved that dance into my body’
Deborah Bull, Balerina

Unconscious
Q. What do we know about ‘Tacit Knowledge’?

A. Not enough....!!

- TK is stored and retrieved very differently from propositional ‘conscious’ knowledge
- TK is normally invisible to conscious thought
- TK is best accessed through face to face group interactions
- Trust, reciprocity, enjoyment, social capital are keys to accessing TK. Formal rewards deter.
- When accessed, TK can be highly generative of innovation – new ideas, new approaches.
Tacit knowledge - in summary.

• In order to cope with complexity and speed of the classroom new teachers filter out seemingly non ‘vital’ information about what happens in their lessons – what students do and what teacher does.
• The filtered out information is captured in tacit knowledge storage and retrieval systems.
• Therefore most teacher practice-knowledge exists in tacit form and is invisible to the teacher.
• Those who quickly learn to use these filters survive as teachers. Those who don’t leave.
# Teachers’ learning activities

<table>
<thead>
<tr>
<th>Learning activities</th>
<th>f</th>
<th>%</th>
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<tbody>
<tr>
<td>Experimenting</td>
<td>234</td>
<td>31.8</td>
</tr>
<tr>
<td>Considering own practice</td>
<td>244</td>
<td>33.2</td>
</tr>
<tr>
<td>Getting ideas from others</td>
<td>110</td>
<td>15.0</td>
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<tr>
<td>Experiencing friction</td>
<td>109</td>
<td>14.8</td>
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<tr>
<td>Struggling not to revert to old ways</td>
<td>33</td>
<td>4.5</td>
</tr>
<tr>
<td>Avoiding learning</td>
<td>5</td>
<td>0.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>735</td>
<td>100.0</td>
</tr>
</tbody>
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Practical obstacles to teacher learning

- Most teachers teach alone so get little professional feedback
- When another professional is with them watching a lesson it is usually ‘inspection’ or performance monitoring, but not ‘learning’
- Neither promotes risk taking, innovation or self awareness – pre-requisites for teacher learning or development of new practice knowledge
Lesson Study process

First Lesson Study Cycle

- Initial meeting of LS group to determine what it is that you want to improve and I.D. case pupils.
- Joint planning of first research lesson
- Teach / observe first research lesson
- Interview pupils
- Post RL1 discussion and initial plans for RL2

Second Lesson Study Cycle

- Teachers research methods that might work
- Post RL2 discussion and initial plans for RL3
- Interview pupils
- Teach / observe RL2
- Joint planning of second research lesson

Third Lesson Study Cycle

- N. B. You can have more than 3 cycles
- Joint planning of 3rd research lesson
- Teach / observe RL3
- Interview pupils
- Post RL3 discussion and agree overall findings

Write up/present what you have discovered. Conduct a public research lesson.

N. B. You can have more than 3 cycles

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Post Study Lesson Discussion flow – from learning to teaching

Observations of case students in study lesson → Questions and discussions about the way other students learned → Questions and discussion about the data on the teaching

Source: Dudley, P (2011) Lessons for learning: how teachers learn in contexts of Lesson Study
Teachers imagine learning and observe learning in great detail – ‘It’s an eye opener’

• They **discover** that their **assessments** of 30% of students are **inaccurate** – often very very inaccurate

• They **discover** new aspects of their **students’** learning

• They are happy to **take risks** because the **focus is on the learning** and the research lesson is **shared**

• They **improve** and refine **micro teaching** strategies
Exploratory Talk

- Hypothesise
- Summarise
- Propose
- Rehearse
- Reason
- Develop
- Observe
- Challenge
- Justify
- Suggest
- Rehearse

Most associated with Learning Points

Second most associated with Learning Points

Source: Dudley, P (2013)
Learning points

• R: I’m trying to think how we can move onto the questions because these are all closed.

• A: If we ask them to do 4/10ths that’s going to be closed. If we say ‘Shade any other part and show us’ that opens it up. So they now have to decide which part they are going to shade.

• R: ‘…and show it in three different ways’.

• R: Or could they just tell their partner – so it’s safe. So it’s not telling everyone yet?
Learning points

• R: Just the wording has made the question sound open. But really there is only a closed answer isn’t there. So we want probing questions to be……

• A: But it’s just…. I mean it’s.. The difference is in the wording of the question. Because instead of saying ‘What number is next?’ its almost… By saying ‘What will happen?’……

• R: ‘What will happen?’ It opens it up a little doesn’t it!

• R: That’s nice if we….I think it takes the pressure off children if you say ‘Explain to your partner what’s going to happen next’. And then we can have some feedback. Yes.
Learning points

• R: Yeh … what really came out was if you have paired students up correctly it is really helpful. A (a case pupil) was with K (another pupil). And K was explaining. And K was getting it slightly wrong. And as he was explaining it to A he realised he was going wrong. And he explained it again. So K not only got it clear in his head because he was having to explain it to A. A learned from K too. So, you're right!
Learning points

• R: ..and the child who really knows it has to explain it to the other, so they kind of consolidate what they know. And that child’s getting the double whammy! They’re getting it from the teacher and from their friend. So it’s win win all round isn’t it. But it does take up more time which is what…… (Pause) But it’s probably time well spent though. (Dudley, P. 2011)

• R: Cos what I learned was…’Don’t assume…Don’t assume’……

• Both: ANYTHING!!! (They laugh)
LS focuses on case pupils in whole class contexts

- Represent typical learner groups
- Are a focus for planning, observation, analysis, discussion
- Deflect the attention from the teacher (less ego involving)
- Focus attention on the specifics of what is/not being learned by particular kinds of learner
- Create micro-level agreed clarity
LS groups share what they have learned. Sharing is also important for teacher learning

- By writing short ‘lesson study reports’
- By holding ‘open house’ lessons
- By staging ‘public research lessons’ where an invited audience watches the new teaching in action and discusses it with the lesson study group teachers and the students involved

- This sharing ‘fixes’ or ‘cements’ the new knowledge more permanently. Without this step teachers often revert to former habits of practice.
LS enables teachers to control how they deal with classroom complexity in subsequent teaching

• They are able to **switch off the filters** developed as coping mechanisms in their early teaching career (and switch them back on again at will)

• They see a new learning behaviour in a case pupil and can then immediately see it in several others - without being overwhelmed complexity
Why LS works – Rose’s view

[LS] is valuable because it develops the teacher. It develops your techniques. Definitely. And you don't normally have that luxury of taking a lesson and pulling it to pieces and analysing every little word and things. You normally just ..You just get going, don't you, and so. And once you've done that a few times, [i.e. just got going without having analysed the effect of the approach on pupil learning,] for a few lessons, you learn those [ineffective] techniques.
How we learn – Vygotsky

Imagine
Rehearse
Do/Watch
Review
and re-imagine

Mediating activity scaffolding / teaching / tools

TALK

Subject 1 (Pupil Learners)
Subject 2 (Teacher Learners)

(Safe) ZPD (Teachers)
(Safe) ZPD (Pupils)

Objects of Learning 1 & 2

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Implications for LS groups

- Use LS for **assessment** better to understand:
  - Students who struggle to learn in a curriculum area
  - Students who seem difficult to engage
  - Students with unexpected gifts and talents
  - Students’ conceptions of the object of learning
  - Students’ motivations
Implications for LS groups

- Adopt a LS group protocol
- Be aware of your LS group learning dynamics
- Spot your learning points
- Identify and analyse your ‘near miss’ learning points
- Learn from these for the next research lesson or lesson study
- Make these analyses as public as you make the lesson study itself
- This is AfL for teacher learning!!
Implications for teachers, principals and schools systems

• Teachers who help each other, who ask for help, who collaborate and coach *McKinsey 2010*

• Promoting and participating in professional learning about teaching and learning is the most effective thing school leaders can do, to have the greatest impact on pupils’ learning, progress and attainment. *Robinson et al 2009*

• Making **practice visible and public** is common to the worlds most improving, high performing school systems *McKinsey 2010*
Our fuel for teaching has been re-ignited!

We feel more confident to be innovative and take more risks within our lessons.

LS encouraged me to be much more reflective in my teaching and to appreciate how useful it is to involve students in their own learning.

We learned what they learned!

Learning from each other is an organic process which feels natural, supportive, safe, challenging and unique.

LS encourages teachers to know their students; planning becomes personalised and learning meaningful.

It’s rewarding..

...and it’s fun!!!
Thank you