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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

Peter Dudley
University of Leicester
Singapore
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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

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Learning is….

- Social – we learn by joining in

- 'Situated' – linked to specific content in specific contexts

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How humans learn (….*probably*)

But learning is very EFFORTFUL (Resnick)

So we stop when we have learned 'just enough'

Mediating activity scaffolding / teaching / tools

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

Subject (Learner)

Object of Learning

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We learn by 'joining in'

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…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!

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‘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

Learning activities	f	%
Experimenting	234	31.8
Considering own practice	244	33.2
Getting ideas from others	110	15.0
Experiencing friction	109	14.8
Struggling not to revert to old ways	33	4.5
Avoiding learning	5	0.7
Total	735	100.0

Bakkenes, I., Vermunt, J.D., & Wubbels, T. (2010). Teacher learning in the context of educational innovation: Learning activities and learning outcomes of experienced teachers. *Learning and Instruction,* 20, 533-548.

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**

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Lesson Study process

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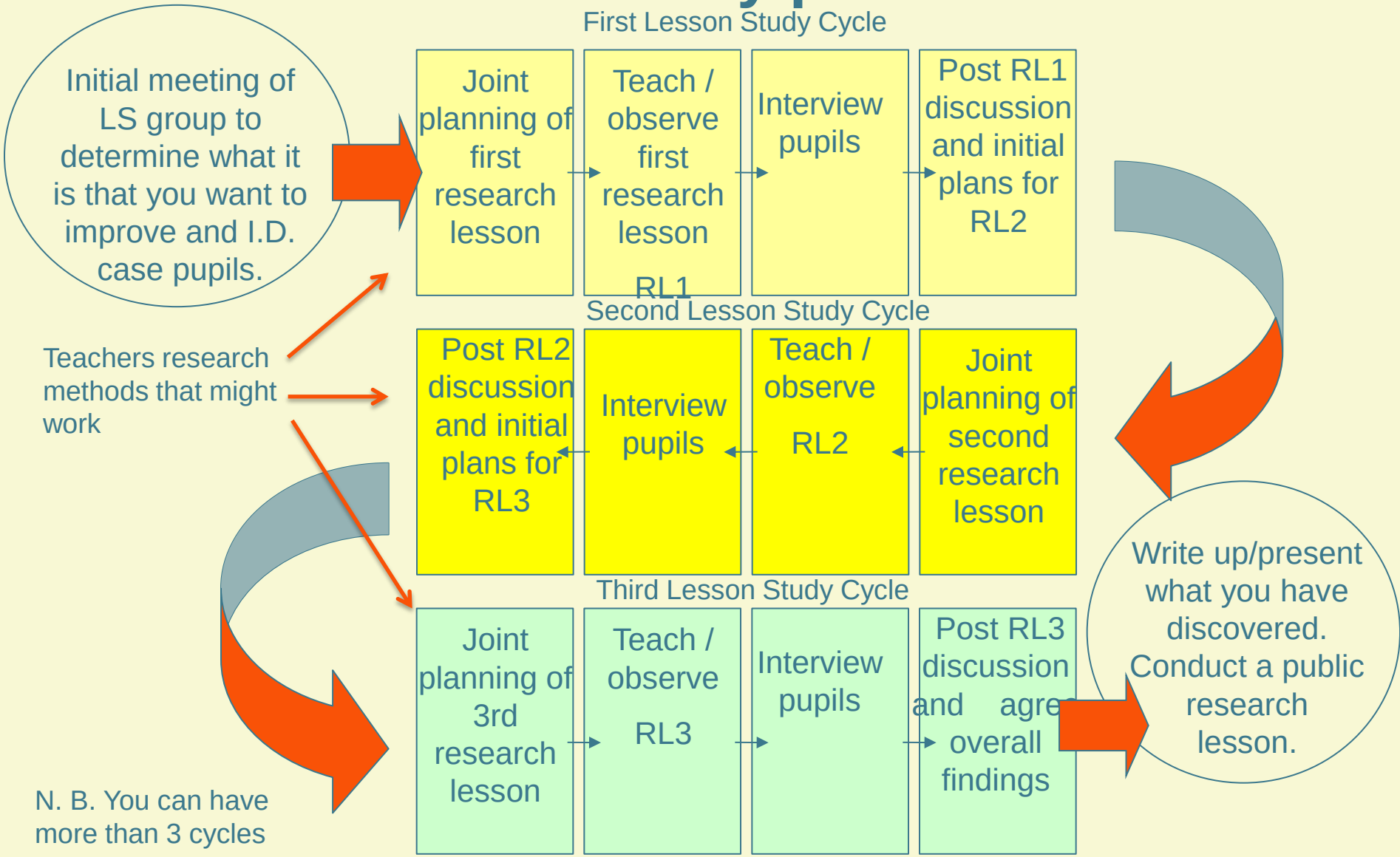

Post Study Lesson Discussion flow – from learning to teaching

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 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

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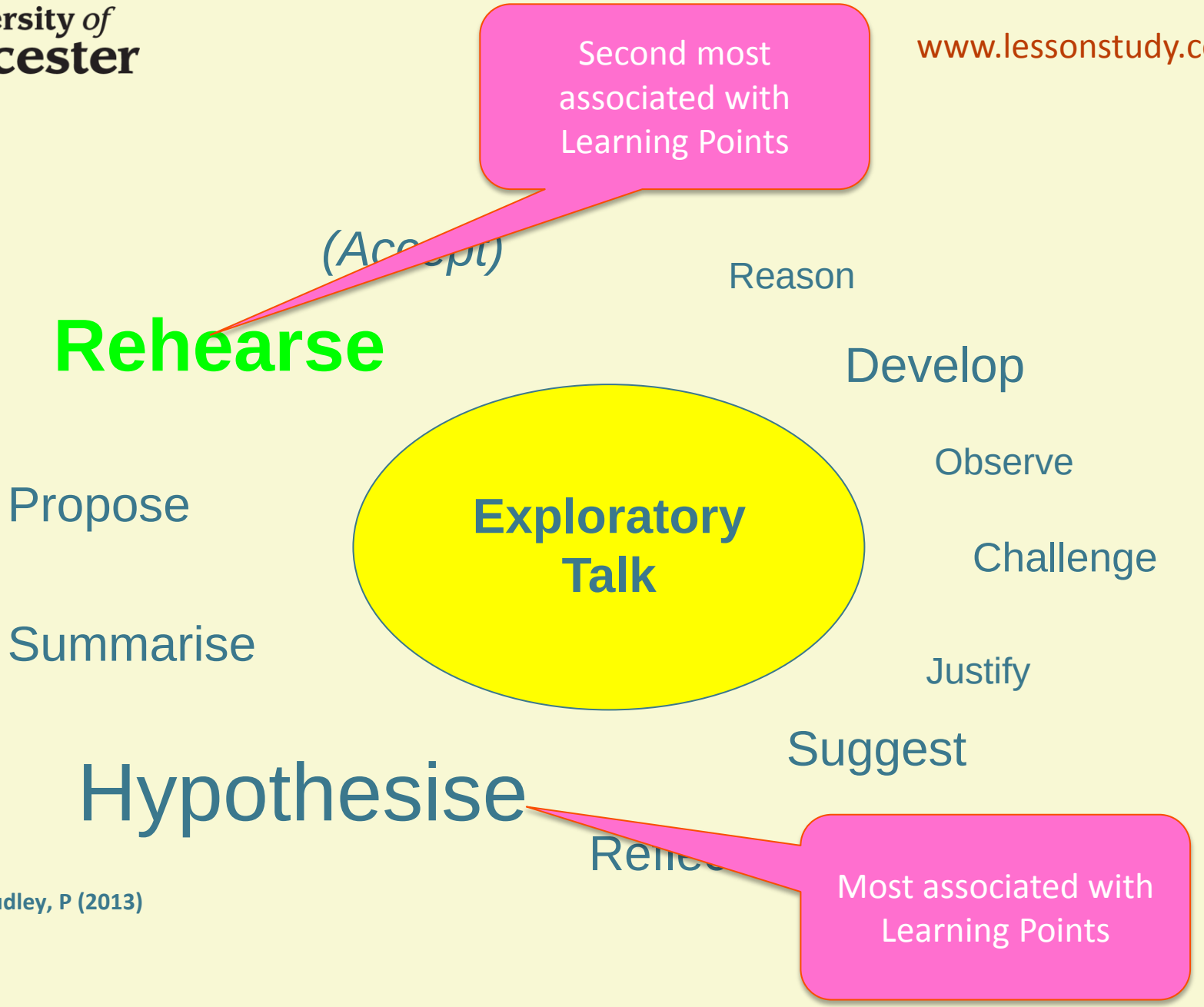

Source: Dudley, P (2013)

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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?

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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.

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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!**

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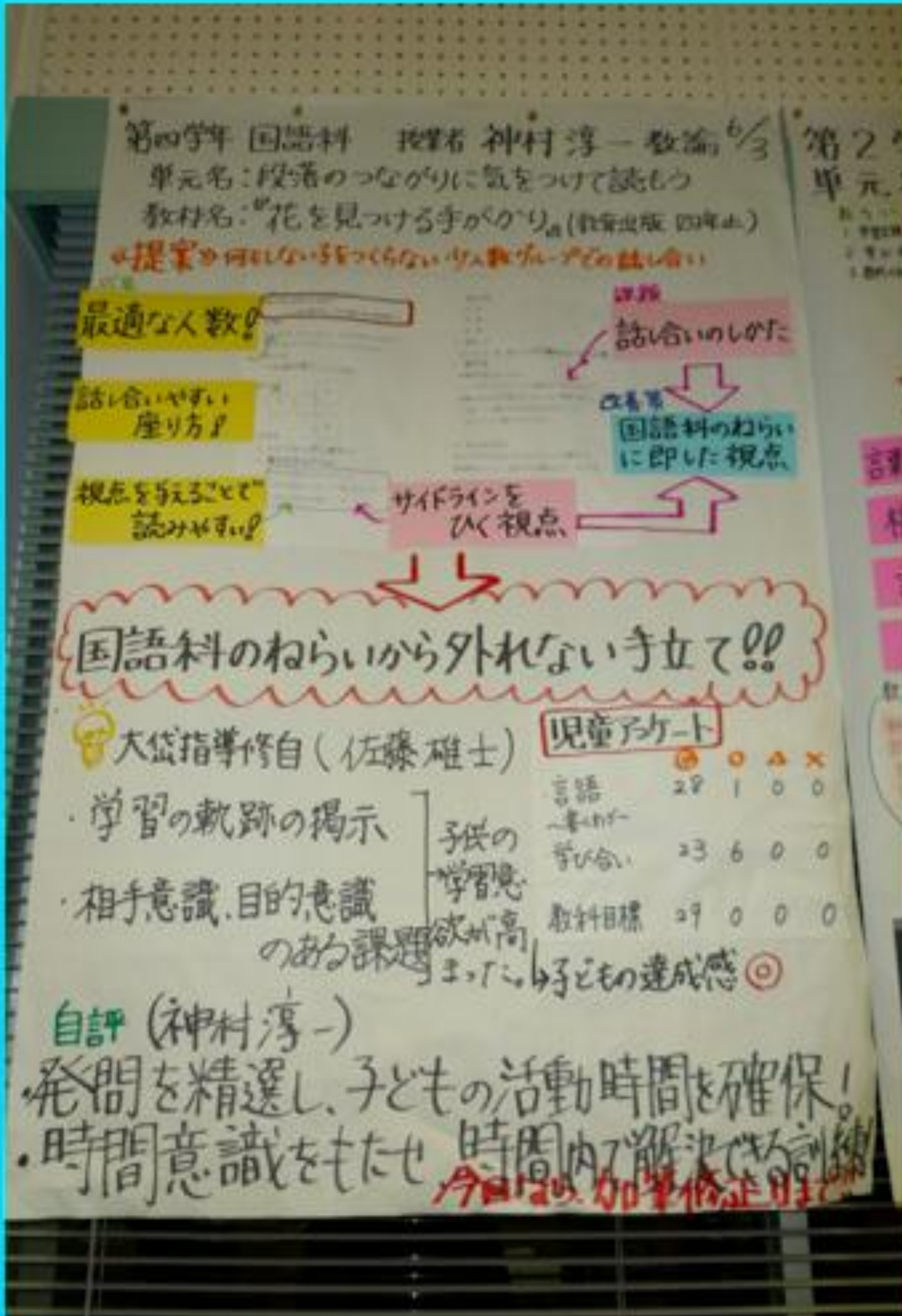
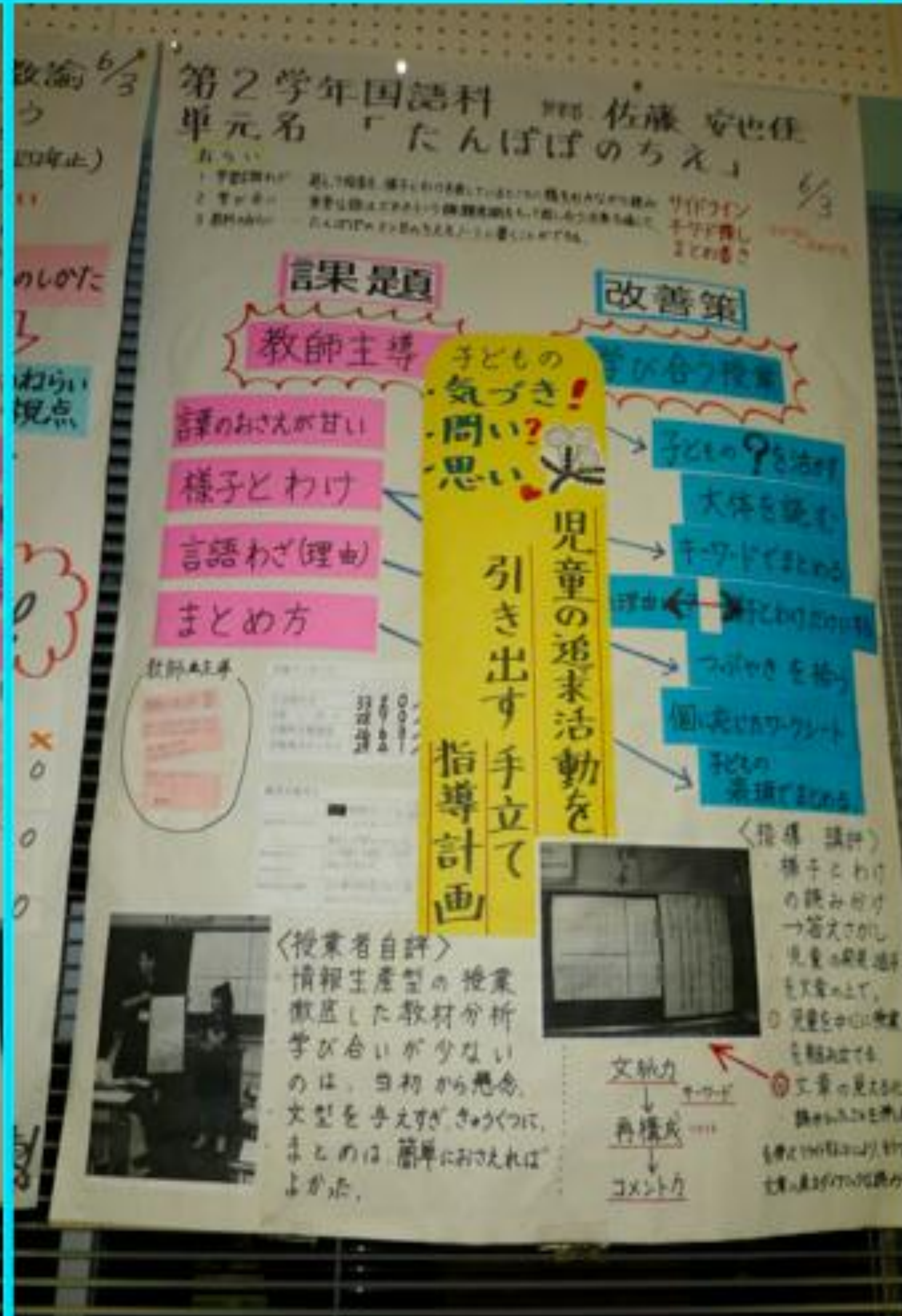
Learning points

- 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)*


第四学年 国語科 授業者 神村淳一 教諭 6/3
単元名：段落のつながりに気をつけて読もう
教材名：『花を見つける手がかり』(教育出版 四年上)
《提案》何もしない子をつくらない少人数グループでの話し合い
最適な人数!
話し合いやすい座り方!
視点を与えることで読みやすい!
課題
話し合いのしかた
改善策
国語科のねらいに即した視点
サイドラインをひく視点
国語科のねらいから外れない手立て!!
大岱指導修自（佐藤雄士）
・学習の軌跡の掲示
・相手意識、目的意識のある課題
子供の学習意欲が高まった。→子どもの達成感◎
児童アンケート
◎ ○ △ ×
言語 28 1 0 0
学び合い 23 6 0 0
教科目標 29 0 0 0
自評（神村淳一）
・発問を精選し、子どもの活動時間を確保!
・時間意識をもたせ 時間内で解決できる訓練


第2学年国語科 授業者 佐藤
単元名「たんぽぽのちえ」
6/3
課題
改善策
教師主導
学び合う授業
子どもの
・気づき!
・問い?
・思い
課のおさえが甘い
様子とわけ
言語わざ(理由)
まとめ方
子どもの?を活かす
大体を読む
キーワードでまとめる
つぶやきを拾う
個に応じたワークシート
児童の追求活動を引き出す手立て
指導計画
〈授業者自評〉
・情報生産型の授業
・徹底した教材分析
・学び合いが少ないのは、当初から懸念。
・文型を与えすぎ、きゅうくつに。
・まとめは簡単におさえればよかった。
〈指導講評〉
文脈力
キーワード
再構成
コメント力

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 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**.

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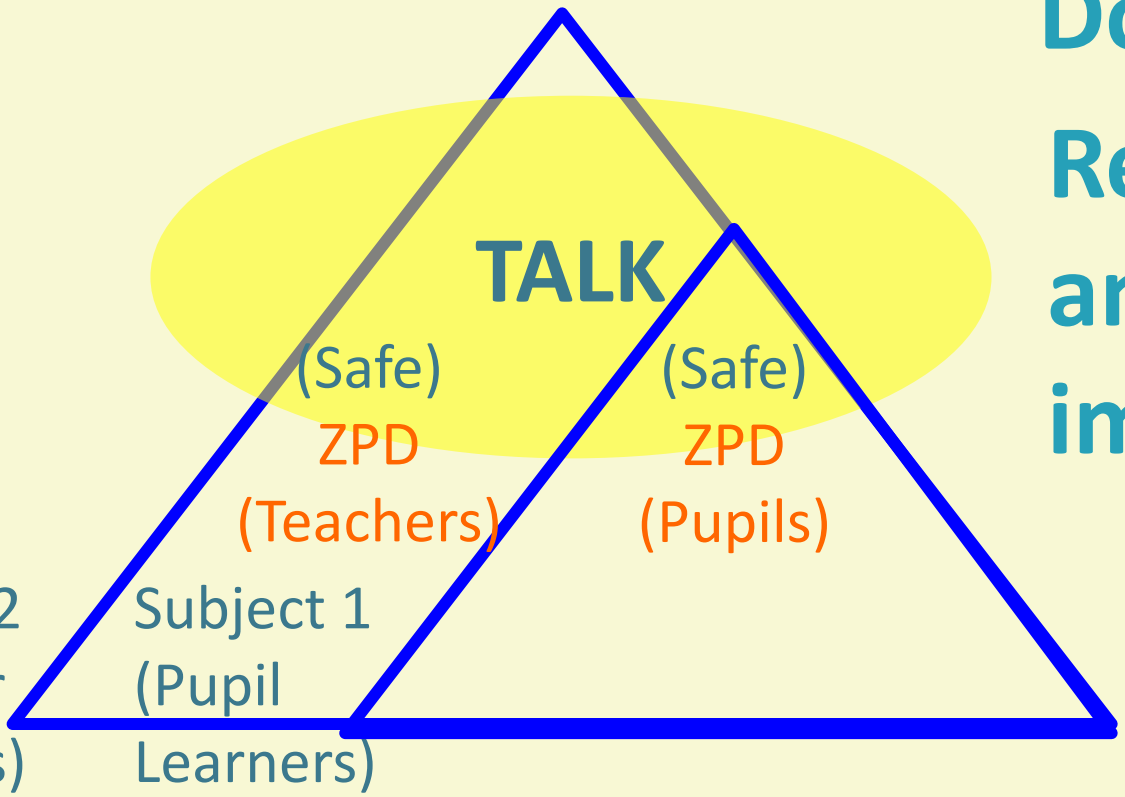
How we learn – Vygotsky



Imagine
Rehearse
Do/Watch
Review and re-imagine

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*

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Our fuel for teaching has been re-ignited!

We learned what they learned!

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

It's rewarding..

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

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.

..and it's fun!!!

Thank you