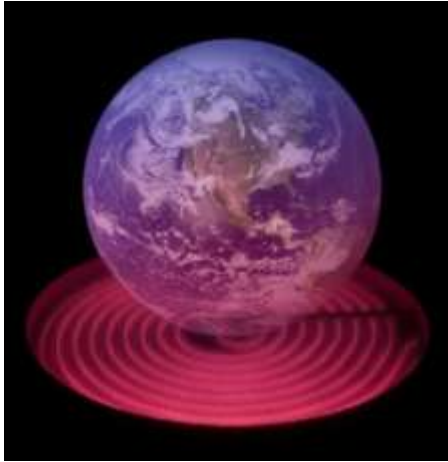


The power of research in school improvement

Philippa Cordingley
Centre for the Use of Research
and Evidence in Education



Research in action



Research based knowledge?

Engaging in and with research?

Practice based knowledge?



Knowledge

Understanding

Informed action



An example Romey Tacon, Catherine Stern and Numicon Mathematics

- Pair of teacher researchers with real concerns about mathematics for vulnerable learners
- Started from Catherine Stern on Number relations
- Developed, trialled and tested resources for “dialling in” number relations visually & expanded from there
- Dramatic improvements proved infectious, whole school, local schools, regionally, nationally, internationally
- Developed into a mainstream approach for mathematics and boosting vulnerable learners



Romey Tacon and Numicon

- Waves of supported research
- Grew to be a regional movement – great results for struggling learners
- Became Numicon Mathematics
Taken up by policy makers at lots of levels in lots of countries
- Changed expectations and life chances of pupils re: mathematics
- <http://www.ntrp.org.uk/node/62>



Some building blocks

- The evidence base about the nature of professional learning and support now settled and to some degree theorised
- 4 “Eppi” reviews – prompted and funded at the outset by The National Union of Teachers and later GTCe
- Timperley’s best Evidence syntheses; and
- A review of teacher engagement in and with research (as compared to health and social care professionals)
- All paint a remarkably consistent picture that links teacher research and school improvement



Benefits

- Show sustained benefits for pupils re:
 - motivation, responses to subjects & curricula
 - performance e.g. test results and specific skills
 - organisation e.g. collaboration, choosing strategies
 - questioning skills, thinking & responses to stimuli
- Improvements in teachers'
 - self-confidence e.g. in taking risks and efficacy
 - willingness to continue professional learning
 - willingness & ability to make changes to practice
 - knowledge & understanding of subject & pedagogy
 - repertoire and skills in matching to pupils' needs

Meta analyses show effective Professional development and learning involves

- Drawing upon (usually external) specialist expertise via research, researchers or other specialists to:
 - Identify, evaluate and refine high impact strategies
 - Illustrate new approaches and phenomena in action
 - Provide feedback on experiments with new approaches
 - Develop professional learners' control over their learning
- (Much more) Structured peer support to:
 - Test and embed practices from elsewhere in day to day contexts
 - Provide emotional support via, reciprocal vulnerability to enable risk taking, experimenting with and adapting practice
 - Build ownership



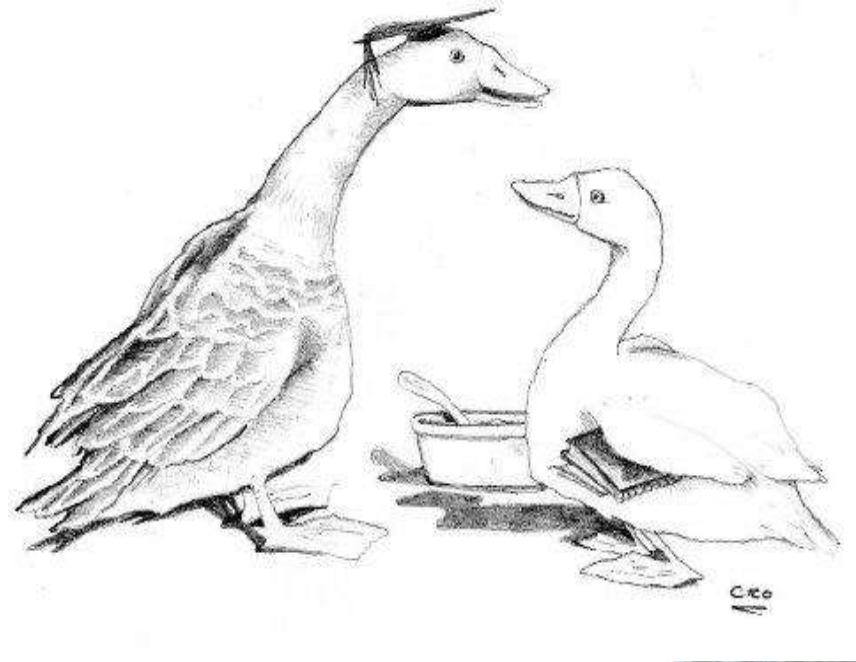
Meta analyses show effective teacher engagement in and with research involves

- Professional dialogue rooted in evidence from experimenting, focused on why things do and don't work (building theory and practice together)
- Enquiry oriented learning activities spread over (usually) two terms or more
- Learning to learn from observing the practice of others
- Ambitious goals set in context of aspirations for pupils
- Tools e.g. observation frameworks, to help secure coherence, sustain learning, secure depth and make evidence collection manageable and useful



An analogy

- “What’s sauce for the goose is sauce for the gander”
- Just as enquiry oriented learning activities are crucial for challenging every pupil
- Enquiry matters for challenging and supporting every teacher
- We have focussed too much on teaching teachers
- Research = effective way of supporting teacher learning connected to pupil learning



I'll have what he's having!"



Leadership of CPDL in context

- We have similar evidence about school leadership
- Best evidence synthesis of the key characteristics of leadership that makes most difference to pupils – 5 key factors which correlate with benefits for pupil learning:
 - Ensuring an orderly and supportive environment
 - Establishing goals and expectations
 - Planning, coordinating and evaluating teaching and the curriculum
 - Promoting and participating in teacher learning and enquiry
 - Strategic resourcing



Effect sizes for leadership interventions

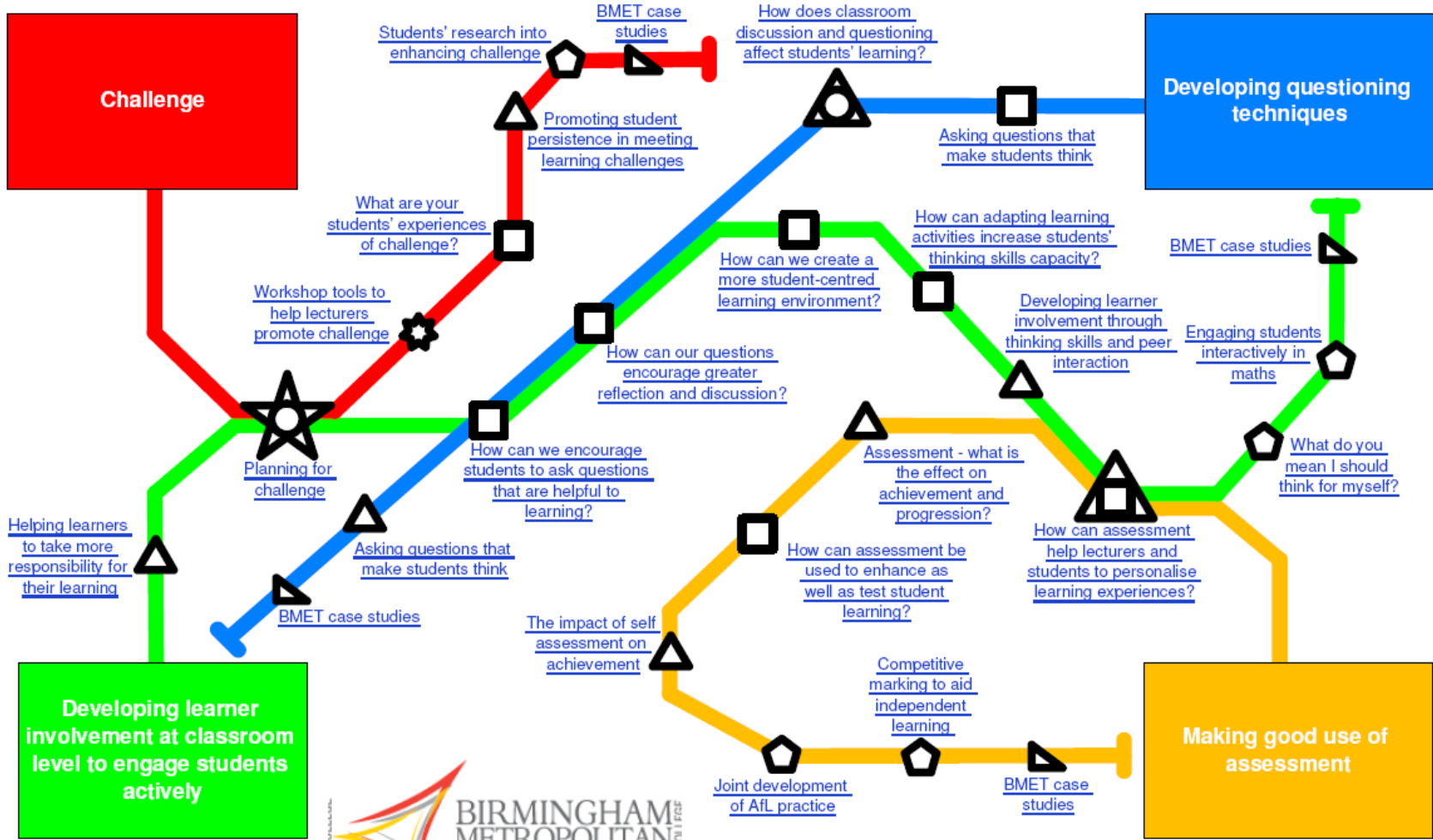
- Promoting and participating in teacher learning and enquiry (0.84)
- Planning, coordinating and evaluating teaching and the curriculum (0.42)
- Establishing goals and expectations (0.35)
- Strategic resourcing (0.34)
- Ensuring an orderly and supportive environment (.27)
- Three additional key factors were:
 - Creating educationally powerful connections,
 - Engaging in constructive problem talk and
 - Selecting, developing, and using smart tools.



A win win approach

- Connecting outstanding teacher and pupil enquiry oriented learning and school improvement crystallises:
 - the need for a pedagogy for professional development
 - role of leaders in modelling and investing in teacher research and learning
 - nature of effective professional learning environment
 - the agency of teachers in each others' learning
 - the importance of specialist expertise coupled with more extensive peer support
 - the importance of access to other people's research





BMET Route Map

Stepping stones and related skills



Contact Details

philippa.cordingley@curee.co.uk

PhilippaCcuree Twitter

www.curee.co.uk

Centre for the Use of Research and Evidence in
Education

4 Copthall House

Station Square

Coventry CV1 2FL

024 7652 4036

