

Keynote address: “Capacity building on the local level: The role of knowledge and use of research”

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**The Centre for the Use of Research
and Evidence in Education**

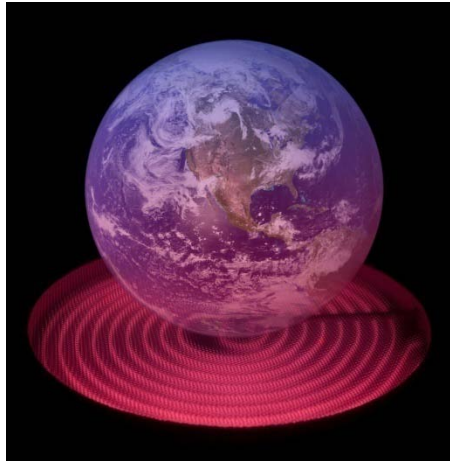


The role of knowledge and use of research for local capacity building?

- What do we mean by knowledge and use of research?
- An illustrative case study
- Understanding knowledge, research use and Continuing Professional Development and Learning (CPD&L) practising what we preach – via systematic reviews
- Capacity building – 3 anchors - supply, demands and quality
- A metaphor



Knowledge models



Research
based
knowledge?

Use of
research?

Practice
based
knowledge?



Knowledge

Understanding

Action

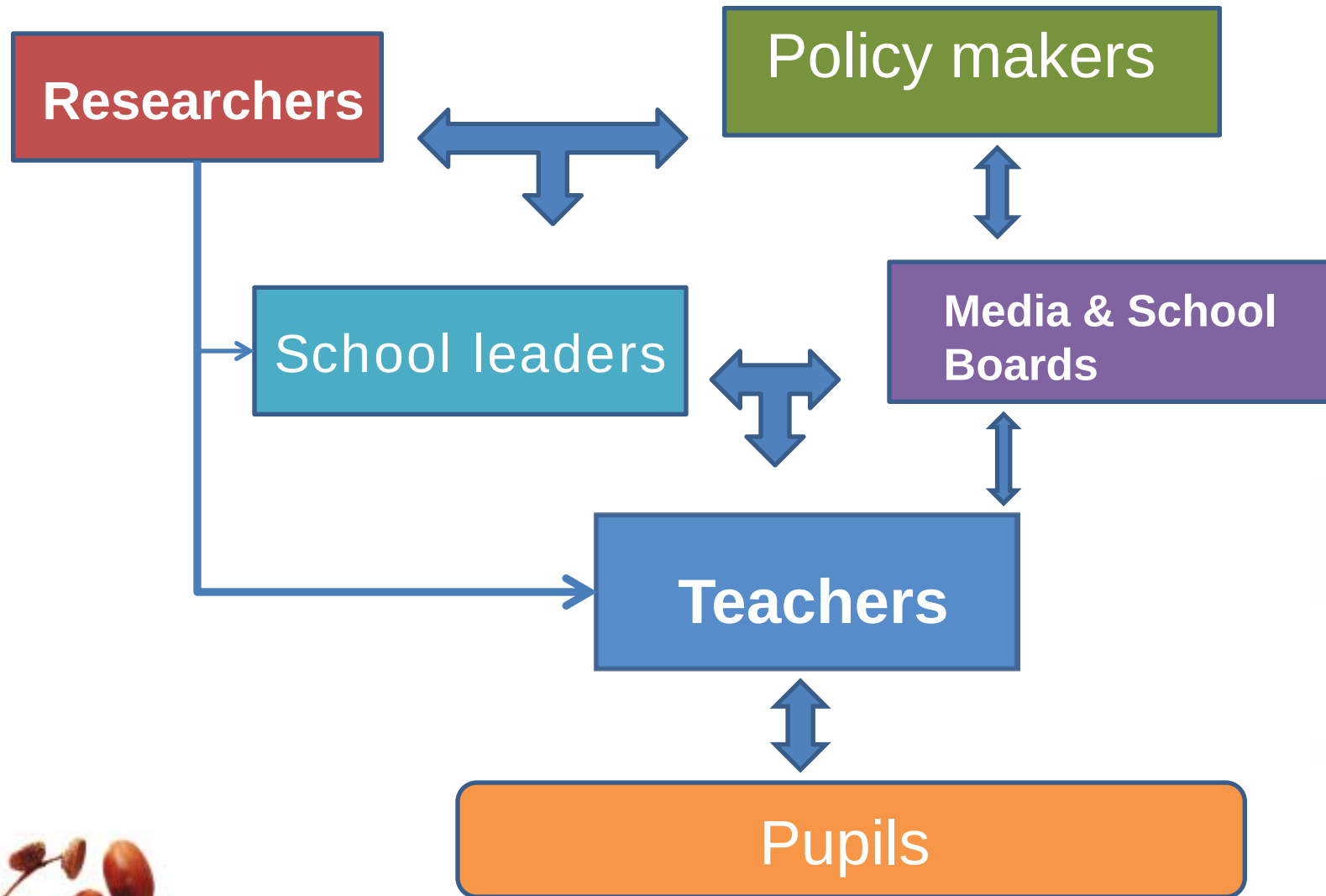


Who are the actors?

- Key players and key linkages
- Systems differ but components broadly constant...
- Pupils too often seen only as the end
- They can also act as key means...
- But always - Teachers make most difference
- So improving practice means focussing on Continuing Professional Development and learning (CPDL) and research re use of research



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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 & worked out from there
- Dramatic improvements proved infectious
- 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
- Changed expectations and life chances of pupils re: mathematics



Conditions that enabled it?

- A “wicked” issue linked to aspirations for pupils
- A strong evidence base on which to build
- Funding & recognition from a high status, structured teacher research scheme including:
 - Requirement to build on existing research
 - Clarity & rigour re: role of evidence, quality framework
 - Coaching in methods and in writing up research
 - An emphasis on needs of users from the start
- Sustained support over 3+ years
- Compelling pupil, teacher and school responses



What does research tell us about capacity building and use of research for improvement?



Use of research – and CPDL research reviews

- Comprehensive electronic literature searches
- Screened titles & abstracts against published criteria;
- Retrieved full studies applied 3 levels of filtering
- Completed maps of the literature
- Double blind data extraction
- Assessment for weight of evidence for synthesis
- Synthesised evidence for review questions
- Commissioned anonymous peer review
- Implications explored in-depth with users



All reviews highlight the importance of:

- Linking pupil and teacher learning about real concerns
- Specialists providing sustained, structured support, modelling high leverage approaches
- Sustained peer support/reciprocal vulnerability to embed learning
- Learning from looking
- Structured dialogue about evidence from experiments
- Ambitious goals – can be prescribed with peer support
- Leaders modelling support by e.g.
 - Providing time for teachers to plan & reflect, and
 - encouraging experimentation and learning



The nature of the support

Range of Support was crucial & provided through:

- **Training** – including instruction in key components and rationale for new approaches
- **Modelling** – demonstrating strategies & enquiry
- **Sustained, critical friendship**, mentoring or coaching for research and enquiry based learning
- Provision of **tools and resources** such as observation frameworks, questionnaires, analysis grids



Benefits

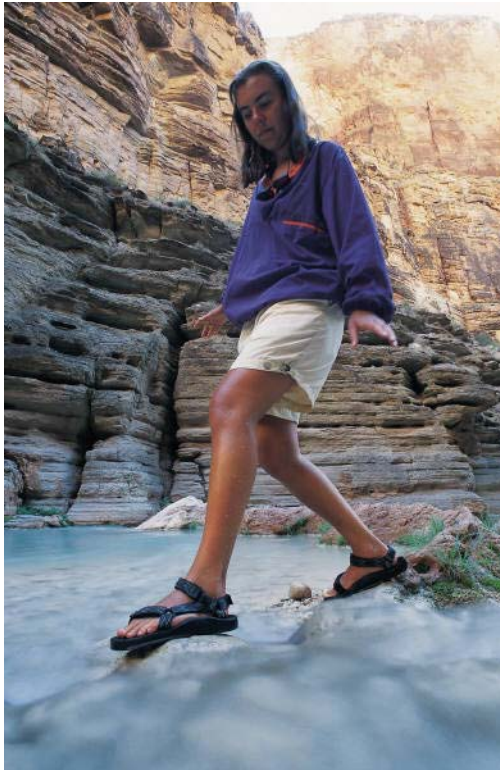
- Show sustained benefits for pupils re:
 - motivation, responses to subjects & curricula
 - performance e.g. test results and specific skills
 - questioning skills, thinking & responses to stimuli
 - organisation e.g. *collaboration*, choosing strategies
- Improvements in teachers':
 - self-confidence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

Barriers to success included

- Time e.g. for induction in new strategies & elapsed time for interpreting/adapting for context
- Diverse foci – teachers struggled to engage in or with others' research if exploring too many different things
- Inadequate facilitation and/or external support – eg
 - too little support or lack of expertise in content;
 - process (e.g. poor research instruments, weak organisation e.g. re: time management)
- Practicalities of enquiry



Stepping stones and related skills



Implications



What does this evidence mean for knowledge use and capacity building?

- Structures that work on:
 - Supply
 - Demand
 - Depth and Quality



Supply

- Focus on wicked issues & synthesise teacher ?s
- Summarise academic research & offer multiple levels/ entry points – bites, tasters, digests
- Increase stock of teacher research (like that of Romey) to be infectious: www.ntrp.org.uk/node/62
- Connect academic and teacher research
- Synthesise/draw on syntheses to build cumulative picture www.curee.co.uk/our-projects/eppicentre-systematic-reviews-continuing-professional-development;
www.educationcounts.govt.nz/topics/BES



Gender Differences
On this line you will find resources which will help you investigate whether either gender is advantaged or disadvantaged at Blackthorns.

Using and carrying out research
On this line you will find resources which will help you use and carry out research effectively

Teaching Phonics
On this line you will find research about phonics which can be used to stimulate your own action research.

Developing our Curriculum
On this line you will find resources about the important factors to consider when developing our curriculum. As we are particularly looking at developing our curriculum in science we have included some examples from this subject.

The dotted line is used for areas where the evidence base is not so mature.



Key

○ Bites - short and engaging PowerPoints

◻ Tasters - micro enquiry tools to try with your students

◻ Teacher research summaries

▽ Video clips

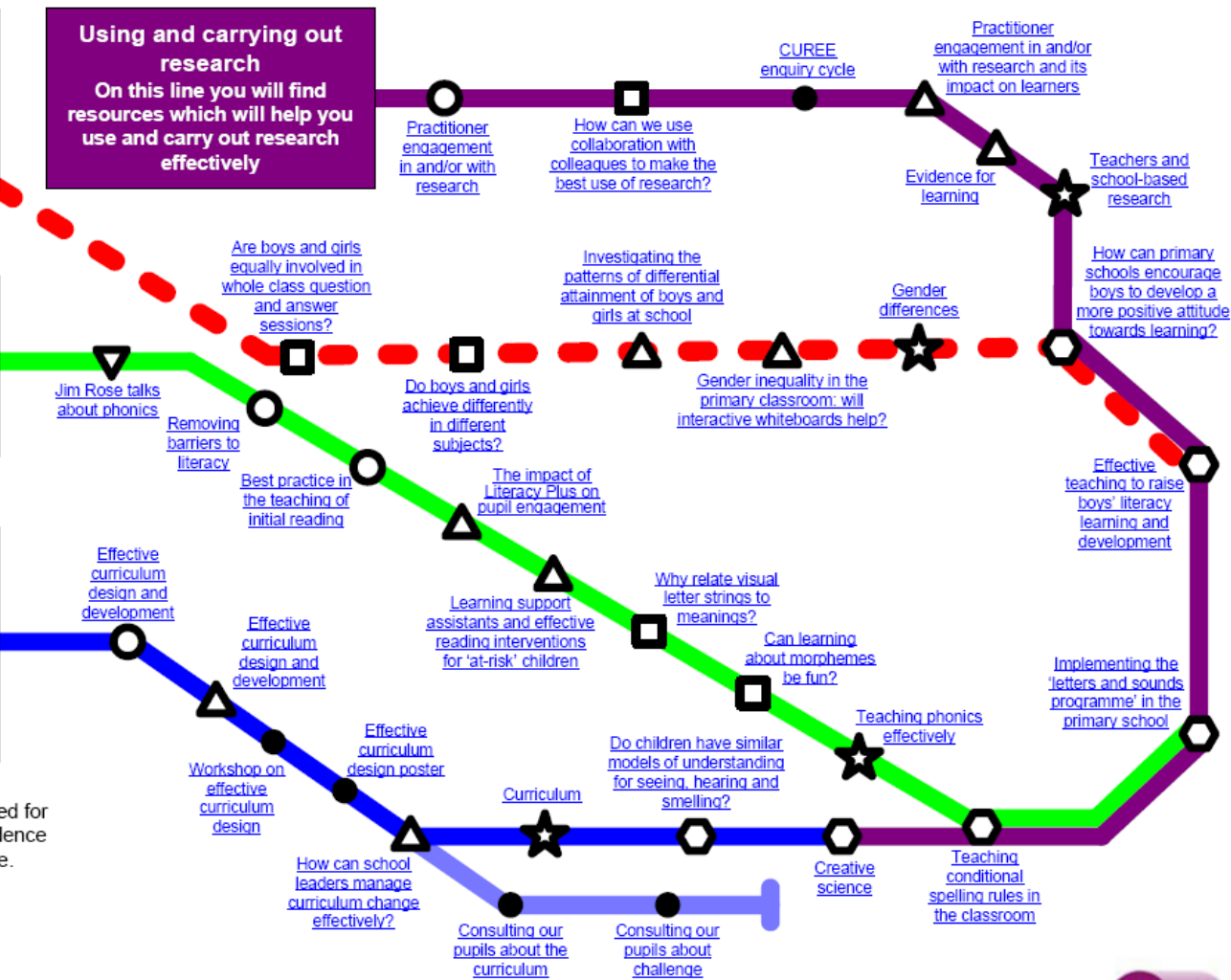
△ Practitioner friendly summaries

★ Links to RfTs - summaries of longer research reports with case studies

● Practitioner tool



Blackthorns Routemap



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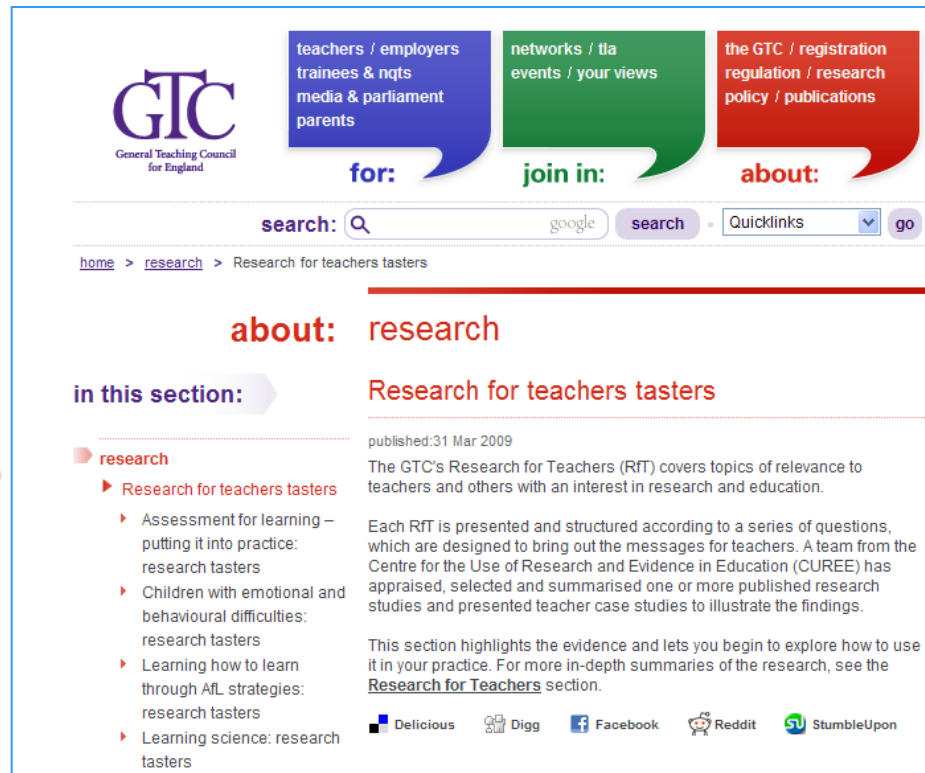
Teacher Learning Academy research

www.gtce.org.uk/research/tasters/

Story of findings hot linking academic and teacher research

Plus tasters:

- nuggets of evidence from TLA summaries
- Micro enquiry activities re how learners experience phenomena now
- Ideas for next steps
- Where to find out more



The screenshot shows the GTC (General Teaching Council for England) website. The header includes the GTC logo and navigation links: 'teachers / employers trainees & nqts media & parliament parents', 'networks / tla events / your views', and 'the GTC / registration regulation / research policy / publications'. Below the header is a search bar with a 'google' button and a 'search' button. The main content area is titled 'about: research' and 'Research for teachers tasters'. It includes a 'published: 31 Mar 2009' date and a description of the GTC's Research for Teachers (RfT) section. A list of 'research tasters' is provided, including 'Assessment for learning - putting it into practice: research tasters', 'Children with emotional and behavioural difficulties: research tasters', 'Learning how to learn through AfL strategies: research tasters', and 'Learning science: research tasters'. Social media links for Delicious, Digg, Facebook, Reddit, and StumbleUpon are also visible.

Supply

- Focus on wicked issues & synthesise teacher ?s
- Summarise academic research & offer multiple levels/ entry points – bites, tasters, digests
- Increase stock of teacher research (like that of Romey) to be infectious: www.ntrp.org.uk/node/62
- Connect academic and teacher research
- Synthesise/draw on syntheses to build cumulative picture & involve teachers in review steering
www.curee.co.uk/our-projects/eppicentre-systematic-reviews-



Demand

- Grants for flagship teacher, school, network research
www.ntrp.org.uk/content/what-can-research-do-cpd-coordinators
- Model, promote engagement in & with research via:
 - National Teacher Research Panel acting nationally & locally e.g. Biennial research conferences, “dine & discuss”
 - Regional/ local networks e.g. Dorset and Flare
 - Teacher Associations promoting research
- Include engagement in and with research in policies professional Standards, inspection frameworks
www.education.gov.uk/schools/toolsandinitiatives/schoolswhitepaper/b0068570/the-importance-of-teaching/



Quality and capacity building

- Willingness to push through methodology wars e.g.
 - over swinging pendulums?
 - Importance of generalisability, large samples and isolation of variables for deciding *whether*
 - Importance of qualitative methods in making/supporting decisions about *how*
 - Systematic reviewing to enhance literacy
- Improving the quality and accessibility of writing
- Threading engagement in and with research through content driven initiatives



What does this evidence mean for knowledge use and capacity building?

- Structures that work on:
 - Supply
 - Access and communication
 - Demand
 - Process of interpretation/use
 - Relevance
 - Recognition, learning and identity
 - Depth
 - Quality – of supply, support and demand
 - Ownership and sustainability



The journey for the UK

- Closet activity in 1996 - 40+% teachers formal involved with/in research in 2011
- Top down – 1996 Teacher Training Agency mounted 1st teacher and school research schemes as a catalyst
- Sideways on - Local Authorities followed suit, National Union of Teachers –sponsored research reviews and research based CPDL
- Bottom up – National Teacher Research Panel modelling quality & establishing a quality framework and peer review via biennial teacher research conferences



In summary

- In the end research use and capacity building are learning problems
- What you know already about learning for young people and teachers in your country is key to building on starting points to create research informed capacity building
- In our country two biggest hurdles:
 - Anti intellectualism and the tyranny of common sense
 - Anxiety about experimenting and risk taking in face of hugely explicit, high stakes accountability systems



Merlin, Arthur and capacity building



The book of Merlin, T H White

Merlin” said the King, “tell me the reason for your visit. Talk. Say you have come to save us from this war.”

“No” replied his former tutor “it is hopeless doing things for other people. The only thing worth doing for the race is to increase the stock of ideas. Then, if you make available a larger and deeper stock, the people are at liberty to help themselves from out of it . By this process the means of improvement is offered, to be accepted or rejected according to their need. Such is our business, to open up new ideas (and practices).”

“You did not tell me this before.” Replied Arthur “You have egged me into *doing* things all my life, the chivalry, the Round Table. What were these but efforts to save people and to improve how things are done?

“They were ideas” said Merlin firmly, “rudimentary ideas. All thought in its early stages begins as action. The actions which you have been wading through have been ideas, clumsy ones of course, but they had to be established before we could begin to think in earnest. You have been teaching man to think.”

“So my round table was not a failure Merlin?” - “Certainly not, It was an experiment”.



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