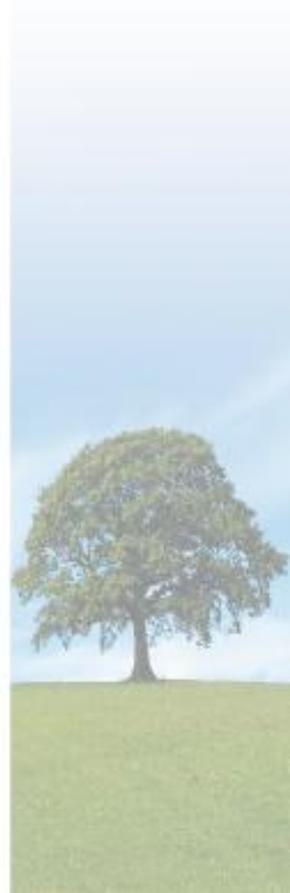




The challenges and opportunities involved in designing large-scale national “RCT-like” programmes in education

Philippa Cordingley & Bart Crisp
The Centre for the Use of Research
and Evidence in Education (CUREE)



Context

- In 2010 The coalition government was interested in research based practice– but it wanted to
 - focus on impact
 - strengthen the “science” of teachers’ use of research,
 - remove most government mediation and
 - involve outstanding schools in leading R&D.
- Set up Teaching School Alliances with R&D as core role
- Commissioned a review of research use in policy in general and education in particular from Ben Goldacre (reference)



TREIP and Closing the gap

- Goldacre strongly challenged qualitative research, including teacher research, and advocated focussing on randomised controlled trials
- At same time Government was investing in closing the gap (CTG) for vulnerable pupils via a no of routes. £7m earmarked for continuing professional development
- The “Close the Gap test and Learn programme ” is a large scale “Randomised Controlled Trial like” R&D programme framed centrally but led locally by TSAs
- Here randomised, systematic experimentation became the driver for R&D in the mediating layer – via TSAs
- Launched via invitation to tender for design March 2013 – design to be completed by end of July based on consultation with schools



Vision for the initiative

- Further embed changes so engagement in research is reinforced as an important part of teachers' practice
- Teachers supported and enabled to inform own practice through use of robust evidence, with a direct impact on educational outcomes for their pupils
- Complement work supported by the Education Endowment Foundation (EEF) and wider efforts to develop R&D and an evidence-informed teaching profession
- Successful approaches to supporting the academic success of the most disadvantaged children are identified and spread





Teaching Schools – local hubs of development/ improvement

- Lead the development of a school-led ITT system, through School Direct and, in some cases, by seeking full accreditation as an ITT provider
- Lead peer-to-peer professional and leadership development
- Support and develop leaders
- Provide support for other schools (NLEs)
- Designate and broker Specialist Leaders of Education (SLEs)
- **Engage in research and development**



Roles

- Research design by CUREE with support from Durham included:
 - Consultation to enable the selection of interventions in partnership with the Teaching Schools Advisory Group and specialist advice from Durham university
 - Overall design of programme and RCT features with Durham,
 - Create protocols tools and resources to ensure consistency between interventions and between schools and Alliances
 - Establish relationships with intervention providers so training could happen within tight timescales without distorting the trials
 - pilot RLS focussed in depth on Closing the gap
 - Provide the training for Response to Intervention; and
 - collaborate with Campaign for British Teaching (CfBT) on design and implementation



Roles during the capability phase

NCTL	Leading the programme, managing randomisation and quantitative data analysis
CfBT Education Trust/ Centre for the Use of Research & Evidence in Education (CUREE)/ Oxford University	Materials development, training and support. Training rounds 1, 2 and 3. Networking events. Online events. Joined by the Durham University and DfE for the final analysis and report writing .
Participating teaching schools	All teaching schools were invited to participation. 188 participating teaching schools leading and managing the trials and collecting qualitative evidence
Trial co-ordinators	Participating teaching schools should appoint a trial co-ordinator
Trial site schools	The schools where interventions take place – (could be a participating teaching school)
Intervention training providers	Provide training places on courses covering the interventions for teachers in trial site schools

Selecting the interventions

- Consultation also aimed to seed recruitment
- Focussed on CTG challenges where might research informed interventions help – which pupils? Which areas of the curriculum? Which teaching skills? The kinds of interventions schools would like to try out
- Key issue was what is an intervention?
- 12 of the 17 shortlisted interventions identified as:
 - manageable by schools in timescales and budget,
 - likely to succeed based on existing evidence and
 - “researchable under trial like conditions”



The 3 Stages of the Project

Phase 1: Consultation

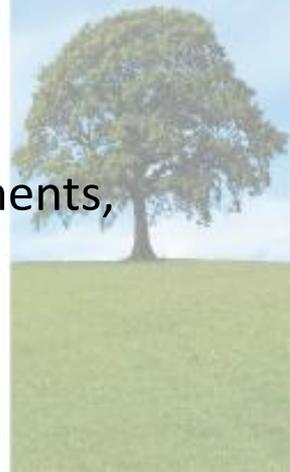
- CUREE , with Durham and NCTL through surveys, focus groups and meetings, collected school views about what might work to Close the Gap.
- To produce a shortlist of 17 interventions

Phase 2: Design

- CUREE with support from Durham, and later CfBT, created a framework and tools, processes and protocols for schools to
 - » test the interventions in practice in the classroom via intervention/ control/ wait groups
 - » Shape the recruitment, testing and randomisation processes
 - » Shape training for TS R&D leaders in managing the programme

Phase 3: Implementation & Assessment

- Interventions start Autumn 2013 with standardised on line assessments, followed by randomisation, provider training in interventions , interventions and on-line post tests



The interventions

- **First Class @ Number** – intense support for teachers and learning support assistants in year 3
- **Numicon** – CPD in dialling in number relations visually – years 1-5
- **Inference training** – CPD in strategies for developing inference skills as part of comprehension for years 3-9
- **Research lesson study** CPD specifically focussed on closing the gap and literacy early years – year 9 – pre/post test pilot in 1st year, trial runs in second



The interventions

- **Response to Intervention** – CPD via close case analysis and matching research based interventions to specific needs in 3 tiers of intensity focussed in literacy year 5 - 9
- **Growth Mindsets** – CPD in recognising and developing growth mindsets – years 1-9
- **Achievement for All** – a whole school development using a data driven focus on most vulnerable pupils in two year groups as a trojan horse for closing gaps school wide
- **Accelerated reader** – providers decided they were not ready for a national programme like this



Pluses, surprises, risks and obstacles

- TS and consultation secured high levels of recruitment and high percentage of retention – so far.
- Over 750 schools signed up. Eighty-eight % of control schools did post tests – though lots of data clean up because of confusion re: eg target pupils and classes
- Selecting interventions from needs emerging from schools secured ownership and relevance – may have stopped this feeling like a being “Done to” initiative
- On line assessments have provided powerful diagnostic evidence and are seen as intrinsically useful



Pluses, surprises, risks and obstacles (2)

- Separating the trainers from the trial managers solved a number of logistical challenges – but makes it hard to know about fidelity
- May be the case that interventions need to be narrowed and focused for this kind of programme because of the tendency to the norm at scale
- Eg there were problems in just using 2 tests i.e. NGRT & writing across multiple interventions tackling broad issues like literacy - where, eg, writing rather than reading was the priority



Pluses, surprises, risks and obstacles (3)

- Schools really do like rigour of the pre and post test
- Hard to keep control schools focussed on niceties across such extended communication lines and roles.
- Focussing on skilled disappearers during training period during RLS pilot won deep engagement and set up safe-to-experiment relationships
- The use of tools and protocols eg pupil identification tool has been important in securing a degree of consistency – our qualitative evidence suggests intervention tools are now being used for other purposes within schools



Choosing interventions

- Selecting which interventions to test in a large-scale RCT is a non-trivial challenge, because of both ethical and practical concerns
- We sought, interventions with a reasonable expectation that they would create benefits. This meant that there needed to be a step before the RCT was selected in which its effects were rigorously explored. But we don't have that kind of evidence re many interventions – and needed to start somewhere so carried out a thorough analysis of the top 17 priorities identified by schools via consultation
- Practically, conducting a trial at large scale imposed additional design restrictions eg on:
 - which interventions are viable for testing, in particular how long the intervention takes to implement; and
 - whether there is capacity for training at scale. These rest on top of those practical concerns which are always involved when choosing interventions for RCTs



Preparing the “RCT like” programme

- Large-scale testing meant also considering practical challenges
- Crucially, schools involved had to be aware of the possibility of
 - being assigned to control,
 - what this means for their practice, and
 - how the trial would unfold
- So planning how the trial would operate beforehand was important – and challenging in timescales and because of the separation of design and implementation phases
- Teaching Schools had a key role. They were supported by intensive round of launch events and training sessions positioning TS A R&D Leads as “local trial managers”



Next steps

- Replication trials for 4 interventions
- Second year of AfA & wait group
- Some early, feedback to R&D leads to help inform Year 2 planning
- Substantial data clean-up and analysis & acquire more data
- Map quantitative data to qualitative evidence
- Watch this space!



Discussion

- Normally a single trial designer and manager would control all the work that was distributed across the National College, CUREE, Teaching Schools, the logistics partner CfBT and the intervention providers
- What are the pros and cons of involving practitioners, spolicy makers, schools and other partners in this way?
- How might this approach affect
 - Take up - recruitment, retention, dissemination of results?
 - The validity of the data?
 - The growth of research and evidence informed practice?





philippa.cordingley@curee.co.uk

[@PhilippaCcuree](https://twitter.com/PhilippaCcuree)

www.curee.co.uk

Centre for the Use of Research and Evidence in
Education

8th Floor, Eaton House

Eaton Road, Coventry, CV1 2FJ

024 7652 4036

