

The **EE**Fective Kent Project  
Making it Work for All:  
Moving from Implementation to Impact



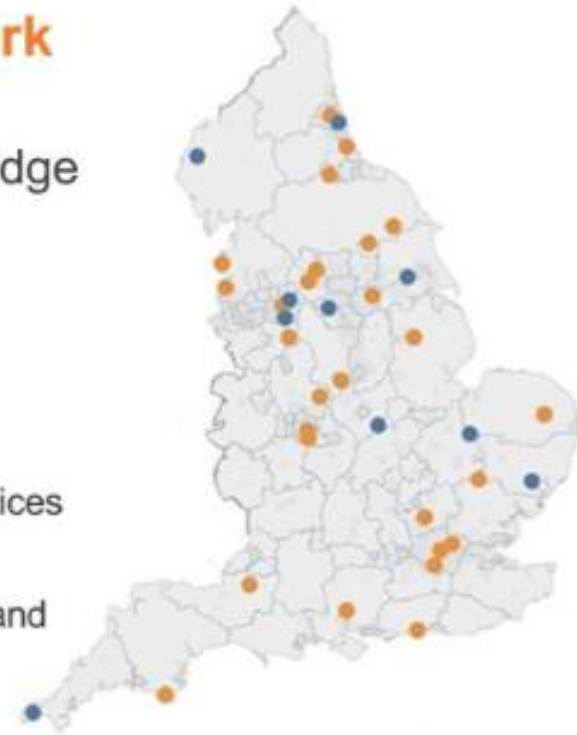
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- Working with Durrington Research School

## The role of the Research School Network

The Research Schools Network serves as a bridge from the evidence into practice.

### Aims:

- Encourage schools to use evidence-based programmes and practices through regular communications and events.
- Provide training and professional development for senior leaders and teachers based on the best available evidence.



# How evidence-informed is your school?



# Research engagement in schools audit



Please answer to the best of your knowledge.

<i>In my school ...</i>	Never	Sometimes	Regularly	Very regularly
Staff are made aware of useful and relevant research evidence.				
Research evidence is referred to during CPD.				
Research evidence is used to plan and implement a sustained programme of CPD.				
Any external CPD is passed through a 'research evidence filter' before it is used in the school.				
Research evidence is used to inform school policies – such as teaching and learning, behaviour and assessment/marking.				
School leadership model the use of evidence-informed professional dialogue.				
The school provides regular opportunities for staff to discuss research evidence (so that it becomes a central part of professional dialogue).				
Once introduced school initiatives are maintained and seen through.				
The school ensures that staff are 'inoculated' against prevalent edu-myths – e.g. 'Brain gym', learning styles and graded lesson observations.				
Staff are encouraged to undertake a 'disciplined enquiry' approach to knowledge generation.				

# Evidence Champions

## WHY?

- To ensure school improvement priorities are **framed in research evidence**
- To **find** and **assimilate** relevant evidence.
- To **contextualise** evidence to suit the needs of the school.
- To act as a '**filter**' – or an '**engine**'.
- To '**mobilise**' the evidence across the school in a **strategic** way.
- To help **dispel prevalent myths** and dead ends.
- To encourage **rigorous evaluation** of current policies and innovations.
- To ask the **difficult questions**.
- To support and encourage **disciplined enquiry** across the school.
- To '**reprofessionalise**' a teacher workforce that has been dominated and the whims of external bodies.

# Evidence Champions

## WHAT?

- Have a good working knowledge of the best available research evidence - and the limitations too.
- Ensure school improvement priorities and approaches are shaped by research evidence.
- Know the best available evidence to use and signpost colleagues to this.
- Help teachers and leaders to mobilise this evidence in classrooms.
- Help leaders to evaluate the impact of these approaches.

# Use of Evidence

## Red flags: author and publication

What would make you sceptical in relation to the author or where the article was published?

- The author has biases or vested interests.
- The author is not qualified to comment or has no experience in this field.
- The article is shared on a commercial website that benefits from the intervention or approach.



## Red flags: research methods

What would make you sceptical in relation to research methods?

- Small or biased samples
- The control and intervention group not being similar
- Measures testing things that only the intervention group have learnt



## Red flags: reviews

What would make you sceptical in relation to reviews of previous research?

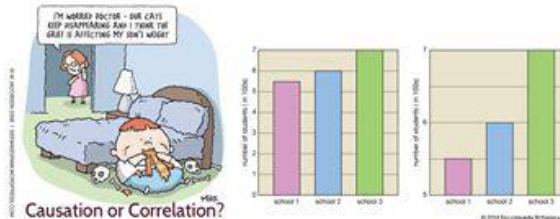
- Reporting only studies which support the author's views, or are written by the author, and ignore any other evidence.
- Over-complicated (or even made-up) scientific language
- Applying findings to situations or people beyond the original research
- Conclusions which most experts in the field would disagree with



## Red flags: data and conclusions

What should you watch out for when people present data and their conclusions?

- People using correlations to conclude that A **causes** B
- Check the axes of graphs are not misleading



## A Rough Guide to SPOTTING BAD SCIENCE

Being able to evaluate the evidence behind a scientific claim is important. Being able to recognise bad science reporting, or faults in scientific studies, is equally important. These 12 points will help you separate the science from the pseudoscience.

### 1. SENSATIONALISED HEADLINES

**Aa** Article headlines are commonly designed to entice viewers into clicking on and reading the article. At times, they can over-simplify the findings of scientific research. At worst, they sensationalise and misrepresent them.

### 2. MISINTERPRETED RESULTS

**X** News articles can distort or misinterpret the findings of research for the sake of a good story, whether intentionally or otherwise. If possible, try to read the original research, rather than relying on the article based on it for information.

### 3. CONFLICTS OF INTEREST

**X** Many companies will employ scientists to carry out and publish research - whilst this doesn't necessarily invalidate the research, it should be analysed with this in mind. Research can also be misrepresented for personal or financial gain.

### 4. CORRELATION & CAUSATION

**↗** Be wary of any confusion of correlation and causation. A correlation between variables doesn't always mean one causes the other. Global warming increased since the 1800s, and pirate numbers decreased, but lack of pirates doesn't cause global warming.

### 5. UNSUPPORTED CONCLUSIONS

**???** Speculation can often help to drive science forward. However, studies should be clear on the facts their study proves, and which conclusions are as yet unsupported ones. A statement framed by speculative language may require further evidence to confirm.

### 6. PROBLEMS WITH SAMPLE SIZE

**1** In trials, the smaller a sample size, the lower the confidence in the results from that sample. Conclusions drawn can still be valid, and in some cases small samples are unavoidable, but larger samples often give more representative results.

### 7. UNREPRESENTATIVE SAMPLES USED

**M** In human trials, subjects are selected that are representative of a larger population. If the sample is different from the population as a whole, then the conclusions from the trial may be biased towards a particular outcome.

### 8. NO CONTROL GROUP USED

**2** In clinical trials, results from test subjects should be compared to a 'control group' not given the substance being tested. Groups should also be allocated randomly. In general experiments, a control test should be used where all variables are controlled.

### 9. NO BLIND TESTING USED

**E** To try and prevent bias, subjects should not know if they are in the test or the control group. In 'double blind' testing, even researchers don't know which group subjects are in until after testing. Note, blind testing isn't always feasible, or ethical.

### 10. SELECTIVE REPORTING OF DATA

**1** Also known as 'cherry picking', this involves selecting data from results which supports the conclusion of the research, whilst ignoring those that do not. If a research paper draws conclusions from a selection of its results, not all, it may be guilty of this.

### 11. UNREPLICABLE RESULTS

**↻** Results should be replicable by independent research, and tested over a wide range of conditions (where possible) to ensure they are consistent. Extraordinary claims require extraordinary evidence - that is, much more than one independent study!

### 12. NON-PEER REVIEWED MATERIAL

**1** Peer review is an important part of the scientific process. Other scientists appraise and critique studies, before publication in a journal. Research that has not gone through this process is not as reputable, and may be flawed.

# Having reflected on the 'red flags' and 'bad science':

- Have you used evidence previously that is not robust?  
What was it?
- Is this always a 'bad thing'?
- In hindsight, would you still use this?
- How could you use these documents to support decision making in your school?



# Mistakes to avoid

- Evidence-*informed*, not evidence-*based*.
- A scattergun approach.
- Sharing the evidence without practical examples.
- Not selective enough – it should fit the needs of the school.
- Not giving people enough time to translate into the context.
- Sharing partially understood evidence.
- Disregarding the practical wisdom of teachers.
- Evidence only tells us what *has* worked, not what *will* work.
- Research role becomes one person's “hobby”

# Case Study - East Farleigh Primary

**How** do I - secure buy in?

- mobilise the research?
- implement evidence-informed practice?
- achieve sustainable change?

Will this drive rapid enough improvement?



# Journey of Implementation

**‘Treat implementation as a process, not an event: plan and execute it in stages’**

## EXPLORE

Define the problem you want to solve and identify programmes or practices to implement



## Create a leadership environment and school climate that is conducive to good implementation



‘A leader takes people where they want to go. A great leader takes people where they don’t necessarily want to go, but ought to be.’



Clarity, consistency and collective responsibility:

- Governors
- Senior leaders
- Curriculum leaders
- Learning support staff
- Parents
- Pupils



# Management and Delivery

“Change is hard **at first**, *messy in the middle* and gorgeous at the end.”

## What did we learn?



DO

- ✓ Build a case for change
- ✓ Create a systematic plan
- ✓ Involve all stakeholders
- ✓ Revisit, reinforce and review regularly
- ✓ Plan for the long-term and celebrate the wins, however small



DON'T

- ✗ Start too late
- ✗ Lose focus or momentum
- ✗ Ignore internal resistance
- ✗ Assume it is being done as intended
- ✗ Expect to see immediate evidence of impact

# Impact

## Four Year Data Summary of School Performance

East Farleigh Primary School outcomes compared to local and national figures.

At or above LA and/or National for same year    Slightly below LA and/or National for same year    Below LA and/or National for same year

	Statutory Assessments		Statutory Assessments		Internal Teacher Assessments - COVID RAG against local / national from previous year		Internal Teacher Assessments - COVID RAG against local / national from previous year		Statutory Assessments	
	East Farleigh EOY 2018	LA / National EOY 2018	East Farleigh EOY 2019	LA / National EOY 2019	East Farleigh SPRING 2020	LA / National EOY 2020	East Farleigh EOY 2021	LA / National EOY 2021	East Farleigh EOY 2022	LA / National EOY 2022
<b>EARLY YEARS</b>										
GLD	78.6%	75.1% / 71.5%	72.4%	74.1% / 71.8%	68%		88%		70%	65.4% / 65.2%
<b>KEY STAGE 1</b>										
Y1 phonics	90%	81.8% / 82.5%	76.7%	81.7% / 81.9%	74%				88.9%	74.2% / 75.5%
Y2 phonics	80%	58.1% / 60.8%	88%	52.2% / 56%					25% (4Ps)	41.2% / 44.1%
EXS+ Reading	75.9%	78.1% / 75.4%	83.3%	76.1% / 74.9%	62%		63%		73.3%	67% / 66.9%
EXS+ Writing	79.3%	73% / 69.9%	76.7%	71.2% / 69.2%	62%		63%		63.3%	57.9% / 57.6%
EXS+ Maths	79.3%	78.7% / 76.1%	70.0%	77.5% / 75.6%	66%		67%		70%	68.4% / 67.7%
GDS Reading	13.8%	26.5% / 25.6%	26.7%	26.1% / 25%	28%		23%		33.3%	17.8% / 18%
GDS Writing	3.4%	16.9% / 15.9%	26.7%	15.3% / 14.8%	14%		13%		23.3%	7.5% / 8%
GDS Maths	3.4%	22% / 21.8%	20.0%	21.8% / 21.7%	28%		20%		33.3%	14.1% / 15.1%
Combined EXS+ RWM	72.4%	68.8% / 65.3%	63%	/ 65%	59%		63%			
Combined GDS RWM	0%	12.1% / 11.7%	13%	/ 11%	10%		10%			
<b>KEY STAGE 2</b>										
EXS+ Reading	57.1%	76.7% / 75.3%	65.2%	76% / 73%	88%		96%		90%	73.9% / 74%
GDS Reading	14.3%	30.1% / 28.1%	4.3%	29% / 27%	44%		60%		43.3%	27.6% / 27.8%
EXS+ Writing	50%	81.4% / 78.3%	69.6%	69.8% / 78%	81%		100%		90%	72.7% / 69%
GDS Writing	0%	22.5% / 19.9%	13%	23% / 20%	19%		40%		30%	15% / 12.8%
EXS+ Maths	57.1%	75.2% / 75.6%	65.2%	79% / 79%	69%		96%		90%	69.8% / 71%
GDS Maths	7.1%	23.6% / 23.6%	21.7%	27% / 27%	22%		36%		23.3%	21.5% / 22.4%
EXS+ GPS	57.1%	75.7% / 77.7%	73.9%	77% / 78%	81%		100%		90%	51.3% / 72%
GDS GPS	10.7%	31.6% / 34.4%	8.7%	19.1% / 36%	19%		56%		33.3%	25.2% / 28.3%
Combined EXS+ RWM	39.3%	66.4% / 64.4%	43.5%	68% / 65%	66%		92%		80%	59.4% / 59%
Combined GDS RWM	0%	10.9% / 9.9%	0%	12% / 10%	19%		28%		6.7%	7.9% / 7.2%

# Case Study - Fulston Manor

Non-selective 1400 pupil secondary school

## Whole School Priorities/SIP

- Attendance – post pandemic
- Culture - safety
- Curriculum – broad, balanced & progress



# Journey of Implementation – Fulston Manor

- Problem – improve awareness and use of research, use of ‘best bets’
- Interventions
  - Check for understanding – questioning & Recall
  - Modelling – scaffolding & stages of practice
  - Metacognition
- Implementation
  - Circulate research to SLT/HoDS
  - Staff CPD – training days weekly sessions
  - Developing common language
- Professional development
  - EEF, KAH research, BERA, Google Scholar
  - Motivate teachers – weekly sessions, from HoD, sharing good practice and sources of research
  - CPD/Research Newsletter



# Management & Delivery

- Problems

- Initial enthusiasm provided too much information
- Research for all points of view therefore had opposing idea
- Identifying 'quality' research

- Solutions

- Use research for current problems
- Review research and decide on a Fulston appropriate approach
- Use of the Chartered College of Teaching crib sheet

- Successes

- Research considered approach by staff
- Greater awareness amongst staff
- Common language
- Lasting impact of approaches
- More than planned impacts

# Impact – Fulston Manor

## Planned for

- Increased discussion, acceptance & use of research
- Use of Rosenshine consistently and later narrowed
- Knowledge retrieval in all lessons, greater understanding
- Subject knowledge, schema development and reduced misconceptions

## Additional

- Assessment – mixed approach
- Behaviour – in response to in year
- Wellbeing – ‘mass hysteria’
- CPD – EEF approach
- Literacy focus – Tier 2& 3 language, reading of students & to students

# Questions

