What Works or What's Worked? Evidence for Education in the UK

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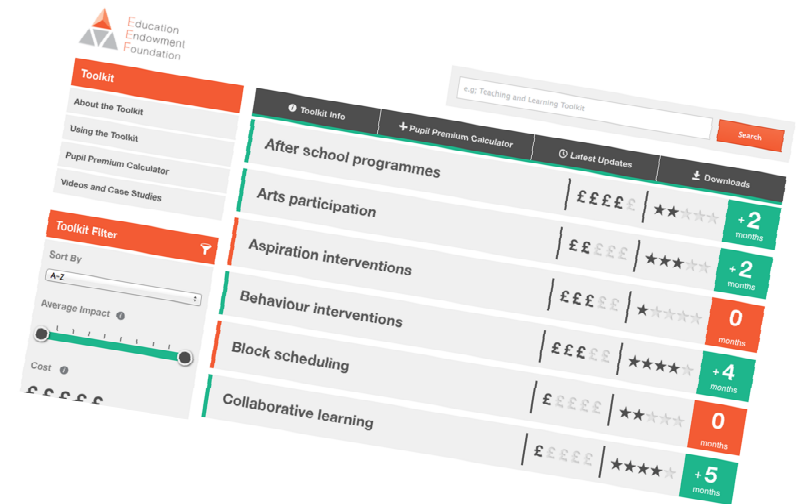School of Education, Durham University

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3rd International Evidence Informed Policy and Practice in Education in Europe (EIPPEE) Conference
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Sutton Trust/ Education Endowment Foundation (EEF) 'Toolkit'

- Website of research-based approaches to support teaching and learning in schools

- 34 approaches so far classified by:

  - Cost estimate (additional outlay for schools)

  - Strength of evidence

  - Potential learning gain (months progress)

Summaries

What is it?

How effective is it?

How secure is the evidence?

What are the costs?

What should I consider?

Aim is to support professional judgment

Case studies/ video

EEF Projects

Programmes Training & CPD

Evaluation guide

Further reading & references

Abstracts from meta-analyses

Policy context

- Response to UK's *Pupil Premium* initiative

- €1100 per pupil for the 20% least affluent pupils[1], plus high accountability framework – "value for money"[2]

- Adopted by the EEF as central to their approach

- Toolkit currently used by nearly half of schools in England

- Designated the '*What Works Centre for "Improving education outcomes for school-aged children"*' in March 2013 by UK Government

Approach

- Systematic search for quantitative syntheses in each theme (with cognate terms)

- Inclusion criteria - experimental comparisons; school age pupils; tested educational outcomes (mainly literacy and numeracy);

- Other data used for effect size estimate where meta-analyses not available

- Details set out in technical appendices

Comparative synthesis

- Quantitative estimate the *size* of the effect
  - Standardised Mean Difference = 'Months of gain'
  - Inverse variance weighted average
- Estimate the *costs* of adopting
  - From studies or similar evaluations
  - Information not always available
- Comparative index, *relative* benefit
- Quality index for each meta-analysis includes:
  - search criteria; ES type; exploration of variance (e.g. random/ non-random); consistency of findings

Feedback	£££££	★★★☆☆	+8 months
Meta-cognition and self-regulation	£££££	★★★★☆	+8 months
Peer tutoring	£££££	★★★★☆	+6 months
Early years intervention	£££££	★★★★☆	+6 months
One to one tuition	£££££	★★★★☆	+5 months
Homework (Secondary)	£££££	★★★☆☆	+5 months
Collaborative learning	£££££	★★★★☆	+5 months
Oral language interventions	£££££	★★★★☆	+5 months
Mastery learning	£££££	★★★☆☆	+5 months
Phonics	£££££	★★★★☆	+4 months

Updated entry — *(One to one tuition)*

Updated entry — *(Collaborative learning)*

New entry Feb — *(Oral language interventions)*

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Small group tuition	£££££	★★☆☆☆	+4 months
Behaviour interventions	£££££	★★★★☆	+4 months
Digital technology	£££££	★★★★☆	+4 months
Social and emotional learning	£££££	★★★★☆	+4 months
Parental involvement	£££££	★★★☆☆	+3 months
Reducing class size	£££££	★★★☆☆	+3 months
Summer schools	£££££	★★☆☆☆	+3 months
Outdoor adventure learning	£££££	★★☆☆☆	+3 months
Sports participation	£££££	★★☆☆☆	+2 months
Arts participation	£££££	★★★☆☆	+2 months

Updated entry

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Individualised instruction	£ £ £ £ £	★★★☆☆	**+2** months
Extended school time	£ £ £ £ £	★★☆☆☆	**+2** months
After school programmes	£ £ £ £ £	★★☆☆☆	**+2** months
Learning styles	£ £ £ £ £	★★★☆☆	**+2** months
Mentoring	£ £ £ £ £	★★★☆☆	**+1** month
Teaching assistants	£ £ £ £ £	★★☆☆☆	**+1** month
Homework (Primary)	£ £ £ £ £	★★★☆☆	**+1** month

Updated entry

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Performance pay	£ £ £ £ £	★ ☆ ☆ ☆ ☆	**0** months
Aspiration interventions	£ £ £ £ £	★ ☆ ☆ ☆ ☆	**0** months
Block scheduling	£ £ £ £ £	★ ★ ☆ ☆ ☆	**0** months
School uniform	£ £ £ £ £	★ ☆ ☆ ☆ ☆	**0** months
Physical environment	£ £ £ £ £	★ ☆ ☆ ☆ ☆	**0** months
Setting or streaming	£ £ £ £ £	★ ★ ★ ☆ ☆	**- 1** month
Repeating a year	£ £ £ £ £	★ ★ ★ ★ ☆	**- 4** months

Updated entry

EEF commissioning of projects

- EEF commissions projects guided by the Toolkit
  - Since launch in 2013 the EEF has awarded:
    - £37.4 million (€48.9M) to 72 projects (57 RCTs) working with over 500,000 pupils in over 2,300 schools in England
  - Toolkit findings (and other recent studies) included in updates (weighted mean ES)
- Aim is to scale successful interventions
  - Depending on evidence of promise
  - Pilot ➜ Efficacy ➜ Effectiveness ➜ Take to scale
  - Compile database of all interventions, with national attainment data to assess longer term impact

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Preliminary results

Toolkit theme	ES (d)	EEF Project	Impact (d)	Notes	Security of findings
One-to-one tutition[1]	0.44 (overall) 0.22 (TAs)	Catch up Numeracy (using Teaching Assistants)	0.21 0.27	Catch up group (v controls) Time equivalent group (v. controls)	🔒🔒🔒 🔒🔒
One-to-one tutition (using TAs)	0.44 (overall) 0.22 (TAs)	Switch on Reading (using TAs)	0.24		🔒🔒🔒
Summer school	0.19	Future Foundations Summer School	0.17 0.00	English Maths	🔒🔒
Summer school	0.19	Discover Summer School	0.21 0.24	Reading Writing	TBC
Small group (Grammar instruction)	0.34 -0.32	Grammar[2] for Writing	0.10 0.21	Overall impact Small group v control	🔒🔒🔒
One to one Small group	0.44 0.34	Response to intervention	0.19 0.48	Overall - high attrition FSM group	🔒
Meta-cognition and self-regulation	0.62	Calderdale Writing Project	0.74	"self-regulated strategy development"	TBC
Arts Participation	0.16	Rhythm for Reading	0.03 n.s	Rhythm based notation reading	TBC

1 Programmes which used experienced and specifically trained teachers tend to be more effective than those using volunteers or classroom assistants (nearly double the effect): http://educationendowmentfoundation.org.uk/toolkit/one-to-one-tuition/

2 Grammar instruction d= -0.32 (Graham and Perrin 2007)

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Conclusions: iterative knowledge brokerage

- Education Endowment Foundation as 'knowledge broker'

- Funds development of the Toolkit

- Promotes the Toolkit to schools (and policy makers) and encourages them to evaluate

- Commissions research to improve outcomes for disadvantaged pupils

- Feeds findings from research back into the Toolkit

- Will evaluate long term impact of interventions

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