How to give research results back to teachers?

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The Nordic Lighthouse Project

3rd meeting of the Nordic Forum
November 10th, 2016
Danmarks Pædagogiske Universitet, Emdrup

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THE SUTTON TRUST

Education Endowment Foundation

Overview

The Sutton Trust – Education Endowment Foundation Toolkit

A model for research communication and use

Some tensions and limitations

Future developments

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What does The Education Endowment Foundation do?

Two aims:

1. Break the link between family income and school attainment

2. Build the evidence base on the most promising ways of closing the attainment gap

The approach:

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A Model for Effective Research Communication and Use

Some necessary conditions for effective research communication and use:

Accurate	in terms of research findings and the probability of benefit (internal and external validity)
Accessible	in terms of getting hold of the evidence and understanding it (external and internal)
Applicable	for specific context (age, phase, subject/ content etc.) and level of use (practitioner, manager, policy maker)
Acceptable	fit with teacher's understanding and beliefs about what will bring about improvement
Appropriate	to context (a *good* solution to a *real* problem)
Actionable	practical and realistic, with tools/ scaffolding for implementation, retaining causal pathway

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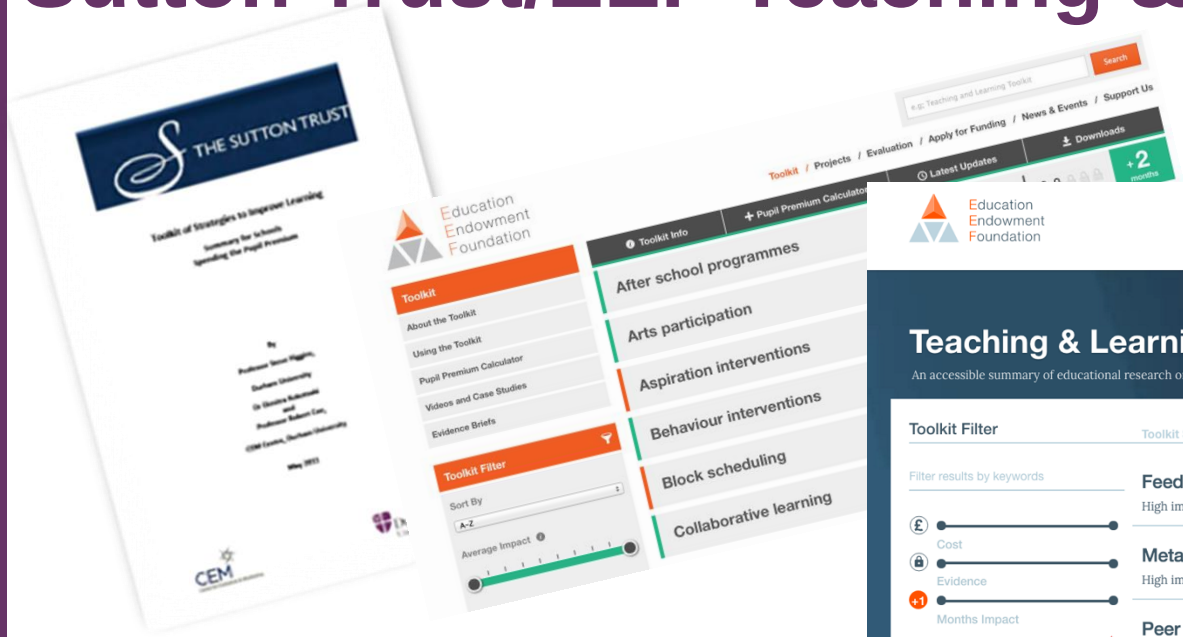
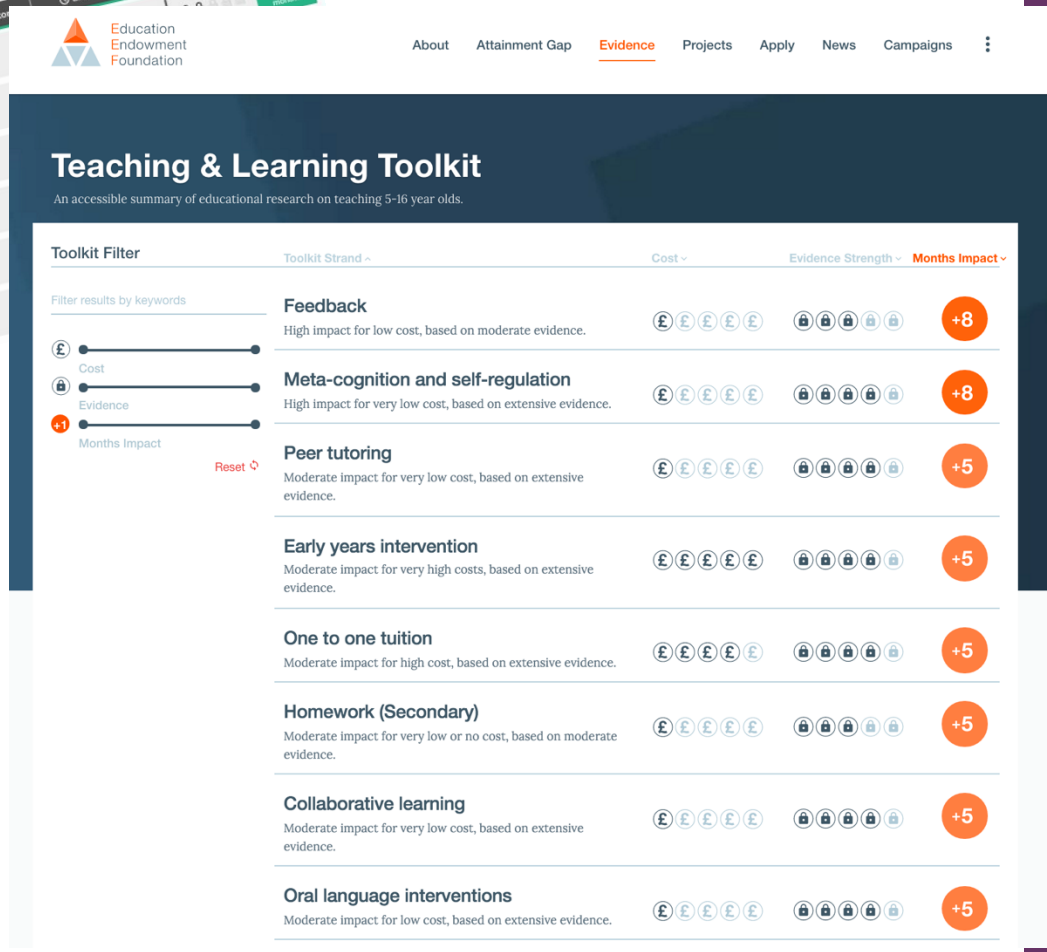
Sutton Trust/EEF Teaching & Learning Toolkit





- Best ‘buys’ on average from research
- Key messages for Pupil Premium spending
- Currently used by over 60% of schools

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http://educationendowmentfoundation.org.uk/toolkit

What we tried to do

Summarise the evidence from meta-analysis about the impact of different strategies on learning (*tested attainment*) – series of related ‘umbrella’ reviews

- As found in research studies
- These are <u>averages</u>

Apply quality criteria to evaluations: rigorous designs only

Estimate the *size* of the effect

- Standardised Mean Difference = ‘Months of gain’
- On tested attainment only

Estimate the *costs* of adopting

- Information not always available

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Overview and aims

Basic cost-benefit analysis of educational interventions and approaches

Based on cost effectiveness estimates of a range of approaches

Average effects from meta-analyses (or other quantitative estimates) and estimate additional outlay to implement

Evidence robustness estimates as ‘padlocks’

To inform professional decision-making about spending/ resource allocation

To create a framework for evidence synthesis and evidence transactions

To provide a structure for refinement and improvement

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Best bets (on average)

Toolkit Filter

Filter results by keywords

Cost

Evidence

Months Impact

Reset

Toolkit Strand	Cost	Evidence Strength	Months Impact
Feedback High impact for low cost, based on moderate evidence.	£	🔒🔒🔒	+8
Meta-cognition and self-regulation High impact for very low cost, based on extensive evidence.	£	🔒🔒🔒🔒	+8
Peer tutoring Moderate impact for very low cost, based on extensive evidence.	£	🔒🔒🔒🔒	+5
Early years intervention Moderate impact for very high costs, based on extensive evidence.	£££££	🔒🔒🔒🔒	+5
One to one tuition Moderate impact for high cost, based on extensive evidence.	££££	🔒🔒🔒🔒	+5
Homework (Secondary) Moderate impact for very low or no cost, based on moderate evidence.	£	🔒🔒🔒	+5
Collaborative learning Moderate impact for very low cost, based on extensive evidence.	£	🔒🔒🔒🔒	+5
Oral language interventions Moderate impact for low cost, based on extensive evidence.	£	🔒🔒🔒🔒	+5
Mastery learning Moderate impact for very low cost, based on moderate evidence.	£	🔒🔒🔒	+5
Reading comprehension strategies Moderate impact for low cost, based on extensive evidence.	£	🔒🔒🔒🔒	+5
Phonics Moderate impact for very low cost, based on very extensive evidence.	£	🔒🔒🔒🔒🔒	+4

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Good bets (on average)

Small group tuition Moderate impact for moderate cost, based on limited evidence.	£ £ £ £ £	🔒 🔒 🔒 🔒 🔒	+4
Behaviour interventions Evidence suggests that behaviour interventions can produce large improvements in academic performance	£ £ £ £ £	🔒 🔒 🔒 🔒 🔒	+4
Digital technology Moderate impact for moderate cost, based on extensive evidence.	£ £ £ £ £	🔒 🔒 🔒 🔒 🔒	+4
Social and emotional learning Moderate impact for moderate cost, based on extensive evidence.	£ £ £ £ £	🔒 🔒 🔒 🔒 🔒	+4
Parental involvement Moderate impact for moderate cost, based on moderate evidence.	£ £ £ £ £	🔒 🔒 🔒 🔒 🔒	+3
Reducing class size Low impact for very high cost, based on moderate evidence.	£ £ £ £ £	🔒 🔒 🔒 🔒 🔒	+3
Summer schools Moderate impact for moderate cost based on extensive evidence.	£ £ £ £ £	🔒 🔒 🔒 🔒 🔒	+2
Outdoor adventure learning Moderate impact for moderate cost, based on limited evidence.	£ £ £ £ £	🔒 🔒 🔒 🔒 🔒	+3
Sports participation Moderate impact for moderate cost based on limited evidence.	£ £ £ £ £	🔒 🔒 🔒 🔒 🔒	+2
Arts participation Low impact for low cost, based on moderate evidence.	£ £ £ £ £	🔒 🔒 🔒 🔒 🔒	+2
Extending school time Low impact for moderate cost, based on moderate evidence.	£ £ £ £ £	🔒 🔒 🔒 🔒 🔒	+2
Individualised instruction Low impact for low cost, based on moderate evidence.	£ £ £ £ £	🔒 🔒 🔒 🔒 🔒	+2
Learning styles Low impact for very low cost, based on limited evidence.	£ £ £ £ £	🔒 🔒 🔒 🔒 🔒	+2

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High risk (on average)

Mentoring Low impact for moderate cost, based on moderate evidence.	£ £ £	🔒 🔒 🔒	+1
Teaching assistants Low impact for high cost, based on limited evidence.	£ £ £ £	🔒 🔒	+1
Homework (Primary) Low impact for very low or no cost, based on limited evidence.	£	🔒 🔒	+2
Performance pay Low or no impact for low cost, based on very limited evidence.	£ £	🔒	0
Aspiration interventions Very low or no impact for moderate cost based on very limited evidence.	£ £ £	🔒	0
Block scheduling Very low or no impact for very low or no cost, based on limited evidence.	£	🔒 🔒	0
School uniform Very low or no impact for very low cost, based on very limited evidence.	£	🔒	0
Physical environment Very low or no impact for low cost based on very limited evidence.	£ £	🔒	0
Setting or streaming Negative impact for very low or no cost, based on moderate evidence.	£	🔒 🔒 🔒	-1
Repeating a year Negative impact for very high cost based on extensive evidence.	£ £ £ £ £	🔒 🔒 🔒 🔒	-4

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Education Endowment Foundation

About | Attainment Gap | Evidence | Projects | Apply | News | Campaigns

Early Years Toolkit

An accessible summary of educational research for early years teaching

Toolkit Filter

Filter results by keywords

Cost

Evidence

+1 Months Impact

Reset

Toolkit Strand	Cost	Evidence Strength	Months Impact
Communication and language approaches Moderate impact for very low cost, based on very extensive evidence.	£		+6
Digital technology Moderate impact for moderate cost, based on limited evidence.	£ £ £		+4
Earlier starting age Moderate impact for very high cost, based on very limited evidence.	£ £ £ £ £		+6
Early literacy approaches Moderate impact for very low cost, based on extensive evidence.	£		+4
Early numeracy approaches Moderate impact for very low cost, based on moderate evidence.	£		+5
Extra hours Moderate impact for very high cost, based on limited evidence.	£ £ £ £ £		+3
Parental engagement Moderate impact for moderate cost, based on moderate evidence.	£ £ £		+5

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Early years version

Summaries

What is it?

How effective is it?

How secure is the evidence?

What are the costs?

What should I consider?

Printable summary

Technical Appendix

Further reading

Case studies/ video

Related EEF projects

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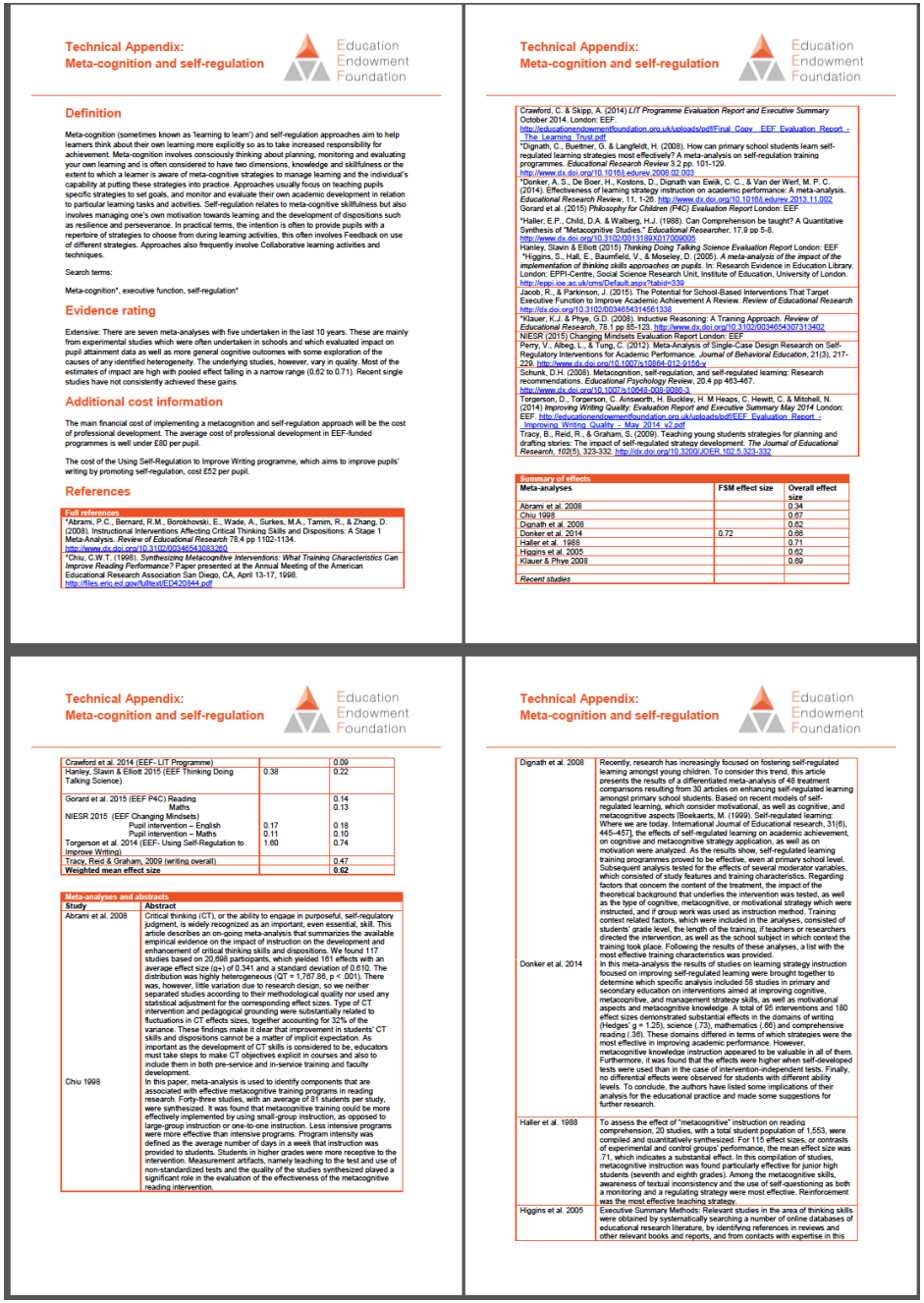
Technical Appendices

Definition
Search terms
Evidence rating
Additional cost information
References
Summary of effects
Abstracts of meta-analyses



Technical Appendix:
Meta-cognition and self-regulation

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Definition

Meta-cognition (sometimes known as 'learning to learn') and self-regulation approaches aim to help learners think about their own learning more explicitly so as to take increased responsibility for achievement. Meta-cognition involves consciously thinking about planning, monitoring and evaluating your own learning and is often considered to have two dimensions, knowledge and skillfulness or the extent to which a learner is aware of meta-cognitive strategies to manage learning and the individual's capability at putting these strategies into practice. Approaches usually focus on teaching pupils specific strategies to set goals, and monitor and evaluate their own academic development in relation to particular learning tasks and activities. Self-regulation relates to meta-cognitive skillfulness but also involves managing one's own motivation towards learning and the development of dispositions such as resilience and perseverance. In practical terms, the intention is often to provide pupils with a repertoire of strategies to choose from during learning activities, this often involves Feedback on use of different strategies. Approaches also frequently involve Collaborative learning activities and techniques.

Search terms:

Meta-cognition*, executive function, self-regulation*

Evidence rating

Extensive: There are seven meta-analyses with five undertaken in the last 10 years. These are mainly from experimental studies which were often undertaken in schools and which evaluated impact on pupil attainment data as well as more general cognitive outcomes with some exploration of the causes of any identified heterogeneity. The underlying studies, however, vary in quality. Most of the estimates of impact are high with pooled effect falling in a narrow range (0.62 to 0.71). Recent single studies have not consistently achieved these gains.

Additional cost information

The main financial cost of implementing a metacognition and self-regulation approach will be the cost of professional development. The average cost of professional development in EEF-funded programmes is well under £80 per pupil.

The cost of the Using Self-Regulation to Improve Writing programme, which aims to improve pupils' writing by promoting self-regulation, cost £52 per pupil.

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*Haller, E.P., Child, D.A. & Walberg, H.J. (1988). Can Comprehension be taught? A Quantitative Synthesis of "Metacognitive Studies." *Educational Researcher*, 17.9 pp 5-8. http://www.dx.doi.org/10.3102/0013189X017009005

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*Higgins, S., Hall, E., Baumfield, V., & Moseley, D. (2005). *A meta-analysis of the impact of the implementation of thinking skills approaches on pupils.* In: Research Evidence in Education Library. London: EPPI-Centre, Social Science Research Unit, Institute of Education, University of London. http://eppi.ioe.ac.uk/cms/Default.aspx?tabid=339

Jacob, R., & Parkinson, J. (2015). The Potential for School-Based Interventions That Target Executive Function to Improve Academic Achievement A Review. *Review of Educational Research* http://dx.doi.org/10.3102/0034654314561338

*Klauer, K.J. & Phye, G.D. (2008). Inductive Reasoning: A Training Approach. *Review of Educational Research*, 78.1 pp 85-123. http://www.dx.doi.org/10.3102/0034654307313402

NIESR (2015) Changing Mindsets Evaluation Report London: EEF

Perry, V., Albeg, L., & Tung, C. (2012). Meta-Analysis of Single-Case Design Research on Self-Regulatory Interventions for Academic Performance. *Journal of Behavioral Education*, 21(3), 217-229. http://www.dx.doi.org/10.1007/s10864-012-9150-y

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Tracy, B., Reid, R., & Graham, S. (2009). Teaching young students strategies for planning and drafting stories: The impact of self-regulated strategy development. *The Journal of Educational Research*, *102*(5), 323-332. http://dx.doi.org/10.3200/JOER.102.5.323-332

Summary of effects

Meta-analyses	FSM effect size	Overall effect size
Abrami et al. 2008		0.34
Chiu 1998		0.67
Dignath et al. 2008		0.62
Donker et al. 2014	0.72	0.66
Haller et al. 1988		0.71
Higgins et al. 2005		0.62
Klauer & Phye 2008		0.69
Recent studies		
Crawford et al. 2014 (EEF- LIT Programme)		0.09
Hanley, Slavin & Elliott 2015 (EEF Thinking Doing Talking Science)	0.38	0.22
Gorard et al. 2015 (EEF P4C) Reading		0.14
Maths		0.13
NIESR 2015 (EEF Changing Mindsets)		
Pupil intervention – English	0.17	0.18
Pupil intervention – Maths	0.11	0.10
Torgerson et al. 2014 (EEF- Using Self-Regulation to Improve Writing)	1.60	0.74
Tracy, Reid & Graham, 2009 (writing overall)		0.47
Weighted mean effect size		**0.62**

Meta-analyses and abstracts

Study	Abstract
Abrami et al. 2008	Critical thinking (CT), or the ability to engage in purposeful, self-regulatory judgment, is widely recognized as an important, even essential, skill. This article describes an on-going meta-analysis that summarizes the available empirical evidence on the impact of instruction on the development and enhancement of critical thinking skills and dispositions. We found 117 studies based on 20,698 participants, which yielded 161 effects with an average effect size (g+) of 0.341 and a standard deviation of 0.610. The distribution was highly heterogeneous (QT = 1,767.88, p < .001). There was, however, little variation due to research design, so we neither separated studies according to their methodological quality nor used any statistical adjustment for the corresponding effect sizes. Type of CT intervention and pedagogical grounding were substantially related to fluctuations in CT effects sizes, together accounting for 32% of the variance. These findings make it clear that improvement in students' CT skills and dispositions cannot be a matter of implicit expectation. As important as the development of CT skills is considered to be, educators must take steps to make CT objectives explicit in courses and also to include them in both pre-service and in-service training and faculty development.
Chiu 1998	In this paper, meta-analysis is used to identify components that are associated with effective metacognitive training programs in reading research. Forty-three studies, with an average of 81 students per study, were synthesized. It was found that metacognitive training could be more effectively implemented by using small-group instruction, as opposed to large-group instruction or one-to-one instruction. Less intensive programs were more effective than intensive programs. Program intensity was defined as the average number of days in a week that instruction was provided to students. Students in higher grades were more receptive to the intervention. Measurement artifacts, namely teaching to the test and use of non-standardized tests and the quality of the studies synthesized played a significant role in the evaluation of the effectiveness of the metacognitive reading intervention.
Dignath et al. 2008	Recently, research has increasingly focused on fostering self-regulated learning amongst young children. To consider this trend, this article presents the results of a differentiated meta-analysis of 48 treatment comparisons resulting from 30 articles on enhancing self-regulated learning amongst primary school students. Based on recent models of self-regulated learning, which consider motivational, as well as cognitive, and metacognitive aspects (Boekaerts, M. (1999). Self-regulated learning: Where we are today. International Journal of Educational research, 31(6), 445–457), the effects of self-regulated learning on academic achievement, on cognitive and metacognitive strategy application, as well as on motivation were analyzed. As the results show, self-regulated learning training programmes proved to be effective, even at primary school level. Subsequent analysis tested for the effects of several moderator variables, which consisted of study features and training characteristics. Regarding factors that concern the content of the treatment, the impact of the theoretical background that underlies the intervention was tested, as well as the type of cognitive, metacognitive, or motivational strategy which were instructed, and if group work was used as instruction method. Training context related factors, which were included in the analyses, consisted of students' grade level, the length of the training, if teachers or researchers directed the intervention, as well as the school subject in which context the training took place. Following the results of these analyses, a list with the most effective training characteristics was provided.
Donker et al. 2014	In this meta-analysis the results of studies on learning strategy instruction focused on improving self-regulated learning were brought together to determine which specific analysis included 58 studies in primary and secondary education on interventions aimed at improving cognitive, metacognitive, and management strategy skills, as well as motivational aspects and metacognitive knowledge. A total of 95 interventions and 180 effect sizes demonstrated substantial effects in the domains of writing (Hedges' g = 1.25), science (.73), mathematics (.66) and comprehensive reading (.36). These domains differed in terms of which strategies were the most effective in improving academic performance. However, metacognitive knowledge instruction appeared to be valuable in all of them. Furthermore, it was found that the effects were higher when self-developed tests were used than in the case of intervention-independent tests. Finally, no differential effects were observed for students with different ability levels. To conclude, the authors have listed some implications of their analysis for the educational practice and made some suggestions for further research.
Haller et al. 1988	To assess the effect of "metacognitive" instruction on reading comprehension, 20 studies, with a total student population of 1,553, were compiled and quantitatively synthesized. For 115 effect sizes, or contrasts of experimental and control groups' performance, the mean effect size was .71, which indicates a substantial effect. In this compilation of studies, metacognitive instruction was found particularly effective for junior high students (seventh and eighth grades). Among the metacognitive skills, awareness of textual inconsistency and the use of self-questioning as both a monitoring and a regulating strategy were most effective. Reinforcement was the most effective teaching strategy.
Higgins et al. 2005	Executive Summary Methods: Relevant studies in the area of thinking skills were obtained by systematically searching a number of online databases of educational research literature, by identifying references in reviews and other relevant books and reports, and from contacts with expertise in this

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Impact as months' progress

Months' progress	Effect Size from …	... to	Description
0	-0.01	0.01	Very low or no effect
1	0.02	0.09	Low
2	0.10	0.18	Low
3	0.19	0.26	Moderate
4	0.27	0.35	Moderate
5	0.36	0.44	Moderate
6	0.45	0.52	High
7	0.53	0.61	High
8	0.62	0.69	High
9	0.70	0.78	Very high
10	0.79	0.87	Very high
11	0.88	0.95	Very high
12	0.96	>1.0	Very high

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Cost-effectiveness

Cost	Description
£ £ £ £ £	Very low: up to about £2,000 per year per class of 25 pupils, or less than £80 per pupil per year.
£ £ £ £ £	Low: £2,001 to £5,000 per year per class of 25 pupils, or up to about £200 per pupil per year
£ £ £ £ £	Moderate: £5,001 to £18,000 per year per class of 25 pupils, or up to about £700 per pupil per year.
£ £ £ £ £	High: £18,001 to £30,000 per year per class of 25 pupils, or up to £1,200 per pupil.
£ £ £ £ £	Very high: over £30,000 per year per class of 25 pupils, or over £1,200 per pupil.

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Evidence Assessment

Rating	Description
	Very limited: Quantitative evidence of impact from single studies, but with effect size data reported or calculable. No systematic reviews with quantitative data or meta-analyses located.
	Limited: At least one meta-analysis or systematic review with quantitative evidence of impact on attainment or cognitive or curriculum outcome measures.
	Moderate: Two or more rigorous meta-analyses of experimental studies of school age students with cognitive or curriculum outcome measures.
	Extensive: Three or more meta-analyses from well-controlled experiments mainly undertaken in schools using pupil attainment data with some exploration of causes of any identified heterogeneity.
	Very Extensive: Consistent high quality evidence from at least five robust and recent meta-analyses where the majority of the included studies have good ecological validity and where the outcome measures include curriculum measures or standardised tests in school subject areas.

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Accurate

Plus

Based on meta-analysis and aggregation of findings

Identifying patterns of effects “on average”

Communicate comparative benefit

Minus

Assumes even bias across fields

Dependent on scope and quality of underlying meta-analyses

Conversion to months’ progress over-simplifies

Pedagogic and analytic heterogeneity prevent more precise estimates

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Key issues

The Toolkit *does not* provide definitive claims of 'what works' BUT attempts to give a best estimate of what has work***ed***

Caution needed since the applicability of an intervention to a new context may not be as effective

- RCTs dependent on 'average treatment effects' on a theoretical population
- causal mechanism may not be identified
- impact of researcher-led interventions may differ from school-led
- needs to be a *solution* to a *problem* to increase probability of benefit

Lack of a clear causal link between general additional spending and learning

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Accessible

+5

Plus

Comparative simplfied layout with impact, cost and evidence indicators

Website 12k users per month

Layers and links provide increasing detail and justification

Minus

May encourage simplistic interpretation

Hard to develop deeper engagement

Tension between accessibility and accuracy

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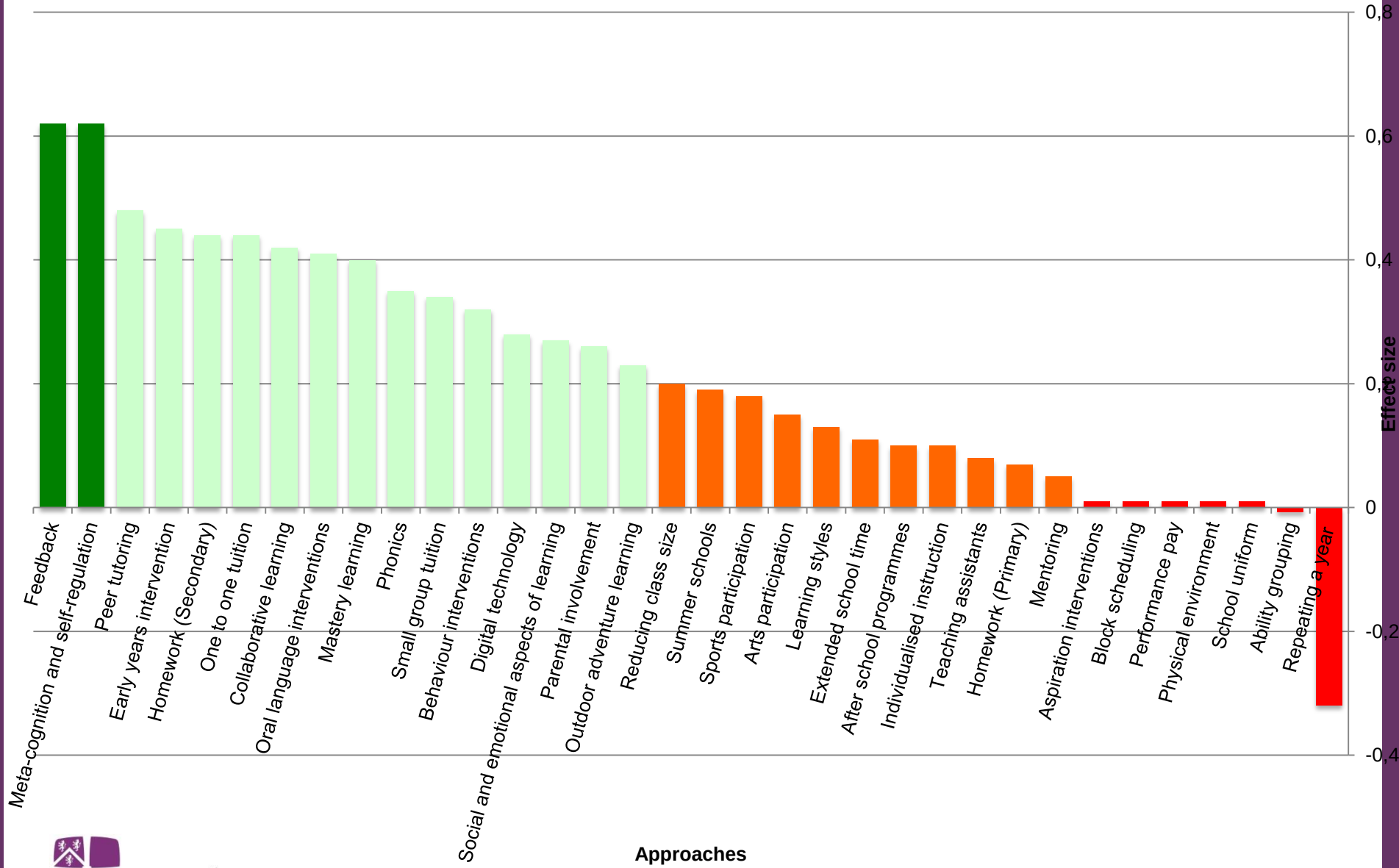
Average Effects



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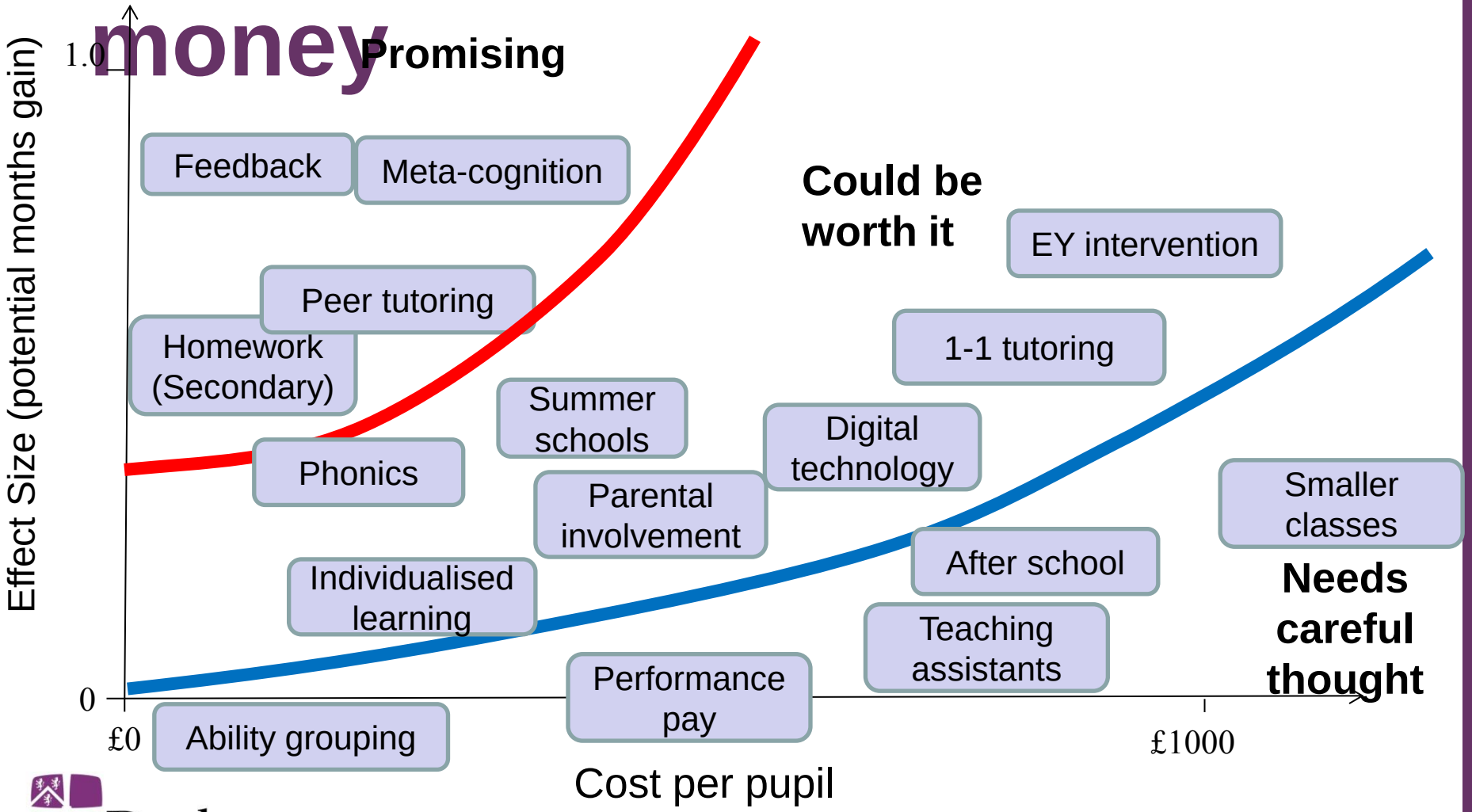
http://educationendowmentfoundation.org.uk/toolkit

Overview of value for money



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Use of strands

1. Are practitioners using the toolkit?

2. Which strands are more frequently consulted?

3. What drives engagement?

   - Google analytics
   - Online reports from schools

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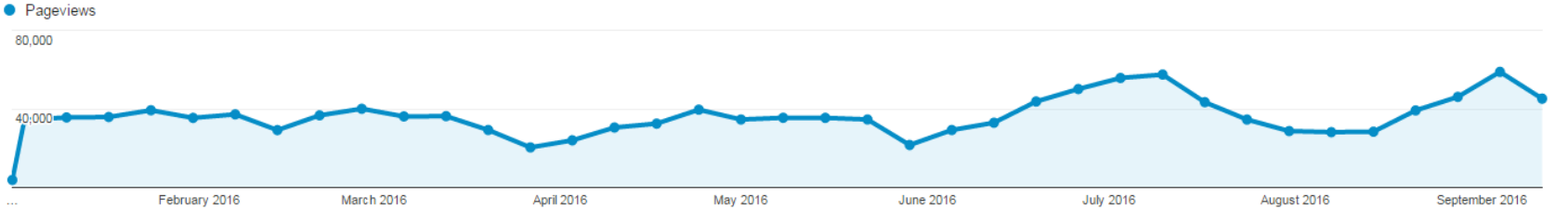
Google Analytics

Overview

Pageviews vs. Select a metric

Hourly | Day | Week | Month



Pageviews	Unique Pageviews	Avg. Time on Page	Bounce Rate	% Exit
1,359,284	801,575	00:01:03	44.14%	27.73%

Site Content

- Page
- Page Title

Site Search

- Search Term

Events

- Event Category

	Page	Pageviews	% Pageviews
1.	/evidence/teaching-learning-toolkit	144,491	10.63%
2.	/	104,669	7.70%
3.	/evidence/teaching-learning-toolkit/	86,171	6.34%
4.	/evaluation/projects/	46,114	3.39%
5.	/attainment-gap/families-of-schools-database/	39,042	2.87%
6.	/toolkit/toolkit-a-z/	33,463	2.46%
7.	/evidence/teaching-learning-toolkit/meta-cognition-and-self-regulation/	29,422	2.16%
8.	/funding/	25,034	1.84%
9.	/evidence/teaching-learning-toolkit/feedback/	23,596	1.74%
10.	/about/	21,270	1.56%

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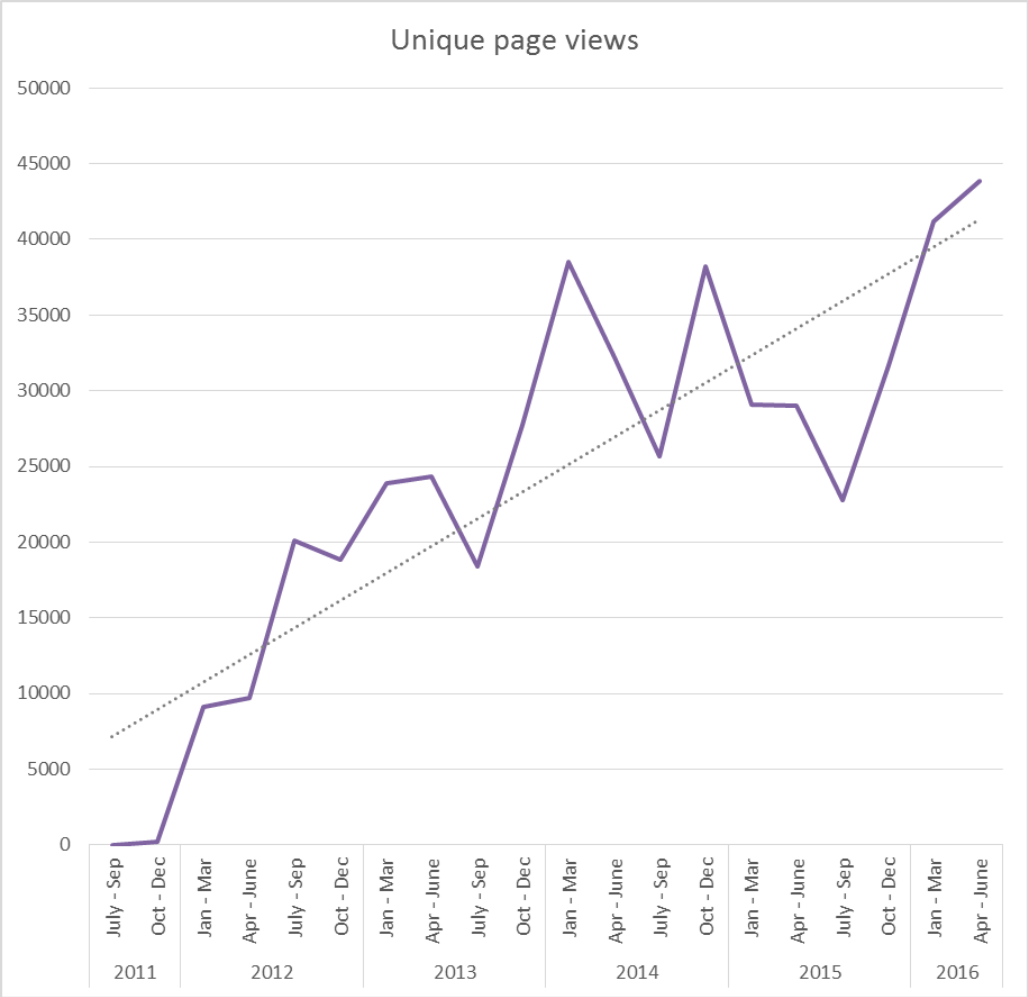
Toolkit access over time

page views



3 month period

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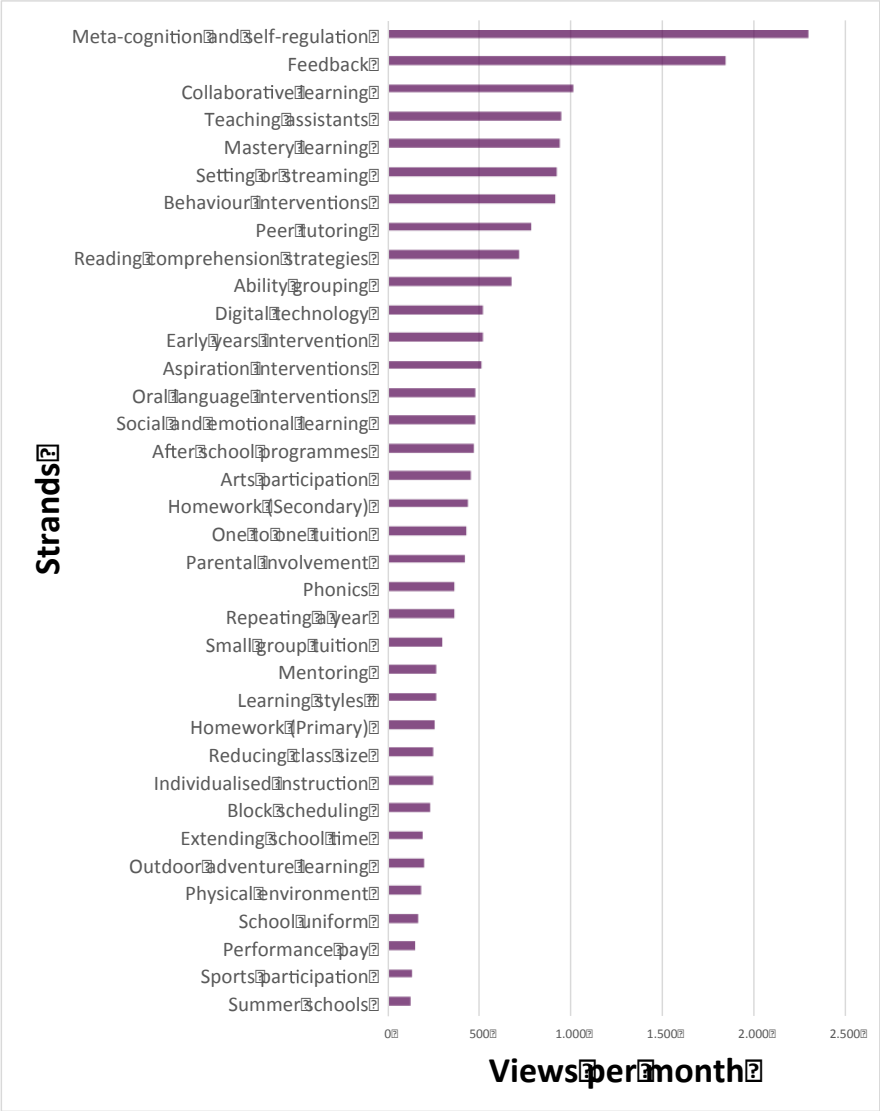
Views per month per strand



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Requirement to report Pupil Premium spending

£133,320

Projected spend of the Pupil Premium Grant 2015/2016

In 2015, we will receive a pupil premium allocation of £133,320 based on 101 pupils with grant entitlement.

School Vision

At Valley Primary School we are "Growing and learning together to be the best that we can be." This applies regardless of background, special educational need, gender, race, belief, disability and sexual orientation. The targeted and strategic use of pupil premium will support us in achieving our vision. In addition to continuing previously successful strategies, the school will continue to use DfE and the Sutton Trust EEF toolkit to inform best use of the grant.

Spending will include:

- Continued contribution towards teachers delivering core su
- Increased contribution towards TA support for intervention
- Contribution to the staffing of initiatives supporting addition
- Continued contribution to Child and Family Support worker
- Contribution towards staff working on school attendance p
- Contributions to additional resources / intervention materia
- Contributions to residential day trips, visits and access to a

£175,770

Pupil Premium at The John Warner School

The John Warner School converted to Academy Trust status on 1 April 2011. This report refers to its third accounting period, from 1 September 2013 to 31 August 2014.

The Pupil Premium funding received by each school for any particular financial year is based on number of students who took up their entitlement to a free school meal at that school on a named day. It therefore is not sensitive enough to reflect changes to family financial status between two named dates, nor does it reflect within year admissions, though the school itself would of course provide free school meals for eligible children accordingly.

We received a total of £175,770 in the above accounting period.

How we spent the funding

Our spending is guided by The Sutton Trust-EEF Teaching and Learning Toolkit (Online, available at http://educationendowmentfoundation.org.uk/toolkit/). This provides a summary of educational research and so offers guidance for teachers and schools on how to use their resources to improve the attainment of disadvantaged pupils, both in terms of making an initial choice between strategies, and in implementing a strategy as effectively as possible.

The authors acknowledge that 'the relationship between spending and pupil outcomes is not simple' and that 'at school level, it is clear that different ways of spending school budgets can have very different impacts on pupil attainment, and choosing what to prioritise is not easy'. They accept that 'even once a decision to implement a particular strategy has been taken there are a wide variety of factors which determine its impact'.

We have made our decisions based on the average impact of a particular strategy on attainment, the strength of the evidence supporting the claim of impact, and the related cost, as set out in the toolkit, together with our own knowledge of the specific needs of eligible pupils.

'Narrowing the Gap' committee (£15,723)

This group of core staff meet weekly to devise and implement strategies designed to reduce the performance gap between disadvantaged and non-disadvantaged pupils, and to monitor and review the progress made by those children toward their learning objectives. The rationale for the group is set out above, and its impact relates to the decisions made and the outcomes achieved by the school.

Investment in teaching staff (£64,728)

We have invested in additional teaching staff in English and mathematics in order to add additional classes aimed at oral language interventions, reading comprehension strategies, and numeracy development. We believe these strategies help targeted students achieve an average of 5 months additional progress in their learning.

1:1 and small group intervention (£79,499)

A broad range of 1:1 and small group intervention programmes are in place for pupils in years 7 to 11 to support those pupils at risk of not achieving their potential in either English, mathematics, or both. This is achieved through the targeted deployment of teaching and educational support staff. These provide for increased feedback to students on their learning, which is estimated to help students achieve an average of 8 months additional progress in their learning, either by virtue of that 1:1 contact or because the work is undertaken in very small groups. The Sutton Trust research identifies these grouping arrangements in themselves as yielding an average of 5 and 4 months average additional progress for the students who benefit from it.

Homework clubs – lunchtime and after school (£10,790)

Additional support with homework is available every day during and after school as a matter of course, however particularly vulnerable students are also directed toward additional specific sessions. Completing high quality homework well yields an average of 5 months additional progress.

The John Warner School

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£235,620

How much Pupil Premium funding does our school receive?

The pupil premium allocation for 2015 /16 is £235,620 (based on 252 pupils).

How do we make best use of the funding?

The funding is used to support pupils in a number of ways. It has been used for some pupils to supplement funding educational trips & visits, enabling them to experience a broad and balanced curriculum and further enhance learning. It can be used to stretch and challenge pupils, (in line with whole school priorities), to motivate them to achieve. Mentors are in place to build confidence, raise self esteem and inspire pupils. If children are behind in English, Maths or other subjects, small group or one-to-one sessions are arranged. Year 11 pupils have been provided with a number of 'intervention programmes' to support their GCSE progress.

Each curriculum area has an opportunity, each term, to apply for funding to support the progress of pupil premium pupils. The funding is allocated based on success criteria while having a positive impact on learning and progress.

The Sutton Trust's 'Pupil Premium Toolkit' details the most effective ways of deploying pupil premium funding to raise standards, both in terms of cost and impact on attainment.

In direct response to their findings, the school has made 'feedback' to students a focus, with training & resources provided to develop teachers' ability to provide effective and accurate information to assist pupils with their learning. Peer to peer tutoring occurs where Key Stage 4 students support the reading programme for Key Stage 3 pupils who are below their expected reading age.

Although the 'toolkit' is a valuable guide, the school remains dedicated to the provision of appropriate support to meet the needs of all our pupils and in doing so, continues to employ mentors in order to raise aspirations and small group interventions to enable 'catch up' work for those having difficulties in specific areas of their learning.

For more information on the Sutton Trust and the work of the Education Endowment Foundation (EEF) go to: http:educationendowmentfoundation.org.uk/toolkit.

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Example of school reporting

Yearly Budget decisions are reported in the Autumn term to Governors and in the Headteacher Report

	Duration	Sessions per week	Weekly Budget	Annual Costs
Care Assistant in FS2 (PSED)	1 hour	30 hrs	£180.00	£7,020.00
Phonics Teaching	20 mins	x5	£11.00	£429.00
Phonics Teaching Group 2	20 mins	x5	£11.00	£429.00
Phonics Teaching FS2	20 mins	x5	£11.00	£429.00
Maths Guided Groups - KS1	1 hour	x5	£55.00	£2,145.00
Literacy Guided Groups - KS1	1 hour	x5	£55.00	£2,145.00
Support in Topic - KS1	1 hour	x6	£66.00	£2,574.00
Maths Guided Groups - KS2	1 hour	x5	£55.00	£2,145.00
KS2 Interventions	30 mins	x10	£55.00	£2,145.00
EAL Learning Support	20 mins	x3	£9.00	£351.00
Residential Costs	na	na		£1,000.00
Trips/Visitors	na	na		£534.00
Clubs	na	na		£270.00
Music Tuition - Piano	na	na		£150.00
Mathletics Subscription	na	na		£45.00
Assessment by Family SENCO	1 hour		£19.00	£95.00
Contingency	na	na		£1,000.00
			£527.00	£22,906.00

Guidance for Pupil Premium spending grid – research based

	Low impact Up to 2 months progress	Moderate Impact 3-5 months progress	High Impact 6-12 months progress
High Cost +£18,000 per year	After school programmes Reducing class sizes Teaching Assistants	Behaviour interventions Digital technology	Early years intervention
Moderate Cost Up to £18,000 per year	Aspiration interventions Extended school time Mentoring Performance pay	Parental involvement Small group tuition Sports participation Summer schools	
Low Cost Up to £5000 per year	Ability grouping Arts participation Homework (Primary) Block Scheduling Individualised instruction Learning styles Physical environment	Collaborative learning Phonics	Feedback Meta cognition and self regulation Peer tutoring

Although the school values the results of the report school analysis via monitoring activities and information presented in FSM case studies there is some conflict around the value of these activities. Therefore at Mornington Primary school we use the following grid as guidance for allocation of spending of the Pupil Premium.

Mornington Pupil Premium spending grid

High Cost +£18,000 per year	After school programmes	Behaviour interventions Teaching Assistants Reducing class sizes Breakfast	Early years intervention Digital technology Booster Classes
Moderate Cost Up to £18,000 per year	Aspiration interventions Extended school time Performance pay	Parental involvement Sports participation Summer schools Mentoring Mid-day Reading Support	1:1 tuition Small group tuition Circle of Friends Individual
Low Cost Up to £5000 per year	Arts participation Homework (Primary) Block	Phonics Ability grouping Individualised instruction Learning styles Physical environment 1st class@number Art Therapy	Collaborative learning Feedback Meta cognition and self regulation Peer tutoring Socially Speaking

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http://www.mornington.notts.sch.uk/index.php/pupil-premium-policy-4

Applicable

Plus

Patterns similar for Early Years and school Toolkits

Meta-analyses tend to combine different ages and across contexts

Minus

Averages of averages – good *general* bet, but not age specific

Tends to focus on pedagogical solutions, not subject or curriculum specific

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Acceptable

Has to fit with teachers' beliefs about what they think will 'work'

Has to challenge current practice to bring about successful change

(A "zone of proximal professional development" ZPPD)

Plus

Range of options in the Toolkit 'menu'

Minus

Acceptable solutions may not be optimal

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Appropriate

To context (learners' needs) and organisational and individual capability (school and teachers)

Plus

Set in a professional 'expertise' model

Minus

Identifying 'fit' is often problematic (external validity)

Needs professional diagnosis and judgement

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Actionable

Has to be practical and manageable

Has to retain (or improve) the causal pathway

Plus

Aim is to share the *what* and the *why*

Minus

RCTs and other evidence often only provide warrant for the *what*

Meta-analyses confirm general approaches, not specific

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EEF approach & the Toolkit

DfE

Northern Rock Foundation

Commissioning partnerships

Wellcome Trust

ESRC

Research commissioning

Systematic searching

Regular updates

Synthesis

Education Endowment Foundation

Research use trials

Teaching and Learning Toolkit Australia

Findings

International partnerships

Policy influence

Practitioner engagement

Campaigns

Website

Evaluation Guide

Conferences

FCH FUNDACIÓN CHILE 40 AÑOS

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Australian version

Global content

Global structure

EVIDENCE FOR LEARNING

About | The Toolkit | Learning Impact Fund | Evidence Informed Educators

Home / The Toolkit

All Approaches - Full Toolkit

All 34 approaches in The Toolkit are listed here. You can filter by average cost, evidence security or months' impact. Then select an approach to explore further.

Sort by Name	Average cost	Evidence security	Months' impact
Arts participation	$ $		+2
Aspiration interventions	$ $ $		0
Behaviour interventions	$ $ $		+4
Block scheduling	$		0
Collaborative learning	$		+5
Digital technology	$ $ $		+4
Early years intervention	$ $ $ $ $		+5
Extending school time	$ $ $		+2
Feedback	$		+8

Meta-cognition and self-regulation

High impact for very low cost, based on extensive evidence.

Meta-cognition and self-regulation approaches have consistently high levels of impact.

Average cost	Evidence security	Months' impact
$		+8

What is it?

Meta-cognition and self-regulation approaches (sometimes known as 'learning to learn' approaches) aim to help learners think about their own learning more explicitly. This is usually by teaching students specific strategies to set goals, and monitor and evaluate their own academic development. Self-regulation means managing one's own motivation towards learning. The intention is often to give students a repertoire of strategies to choose from during learning activities.

How effective is it?

Meta-cognition and self-regulation approaches have consistently high levels of impact, with students making an average of eight months' additional progress. The evidence indicates that teaching these strategies can be particularly effective for low achieving and older students.

These strategies are usually more effective when taught in collaborative groups so learners can support each other and make their thinking explicit through discussion.

The potential impact of these approaches is very high, but can be difficult to achieve as they require students to take greater responsibility for their learning and develop their understanding of what is required to succeed. There is no simple method or trick for this. It is possible to support students' work too much, so that they do not learn to monitor and manage their own learning but come to rely on the prompts and support from the teacher. "Scaffolding" provides a useful metaphor: a teacher would provide support when first introducing a student to a concept, then reduce the support to ensure that the student continues to manage their learning autonomously.

A number of Australian studies have noted a positive correlation between meta-cognitive skills, and academic outcomes. However, the few studies that have evaluated interventions that sought to improve meta-cognitive skills have provided mixed results.

Australasian-based research on the topic suggests that students can benefit from

Contents

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Resources

References
PDF — 362 KB

Further reading

Meta-cognition and self-regulation - Australasian Research Summary

Local costs

Local research & examples

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Current developments

Formalising methodology (translating/adapting existing models)

- Cochrane/ Campbell/ EPPI
- PRISMA for reviews
- CONSORT for trials
- GRADE Guidelines for evidence

New comparable and updatable meta-analyses for each strand

Identifying factors affecting current effect size estimates

- Design (sample size, randomisation, clustering)
- Measurement issues (outcome complexity, outcome alignment)
- Intervention (duration, intensity)

International partnerships

- Australia – 3 RCTs commissioned
- Chile

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A Model for Effective Research Communication and Use

Some necessary conditions for effective research communication and use:

Accurate in terms of research findings and the probability of benefit (internal and external validity)

Accessible in terms of getting hold of the evidence and understanding it (external and internal)

Applicable for specific context (age, phase, subject/ content etc.) and level of use (practitioner, manager, policy maker)

Acceptable fit with teacher's understanding and beliefs about what will bring about improvement

Appropriate to context (a *good* solution to a *real* problem)

Actionable practical and realistic, with tools/ scaffolding for implementation, retaining causal pathway

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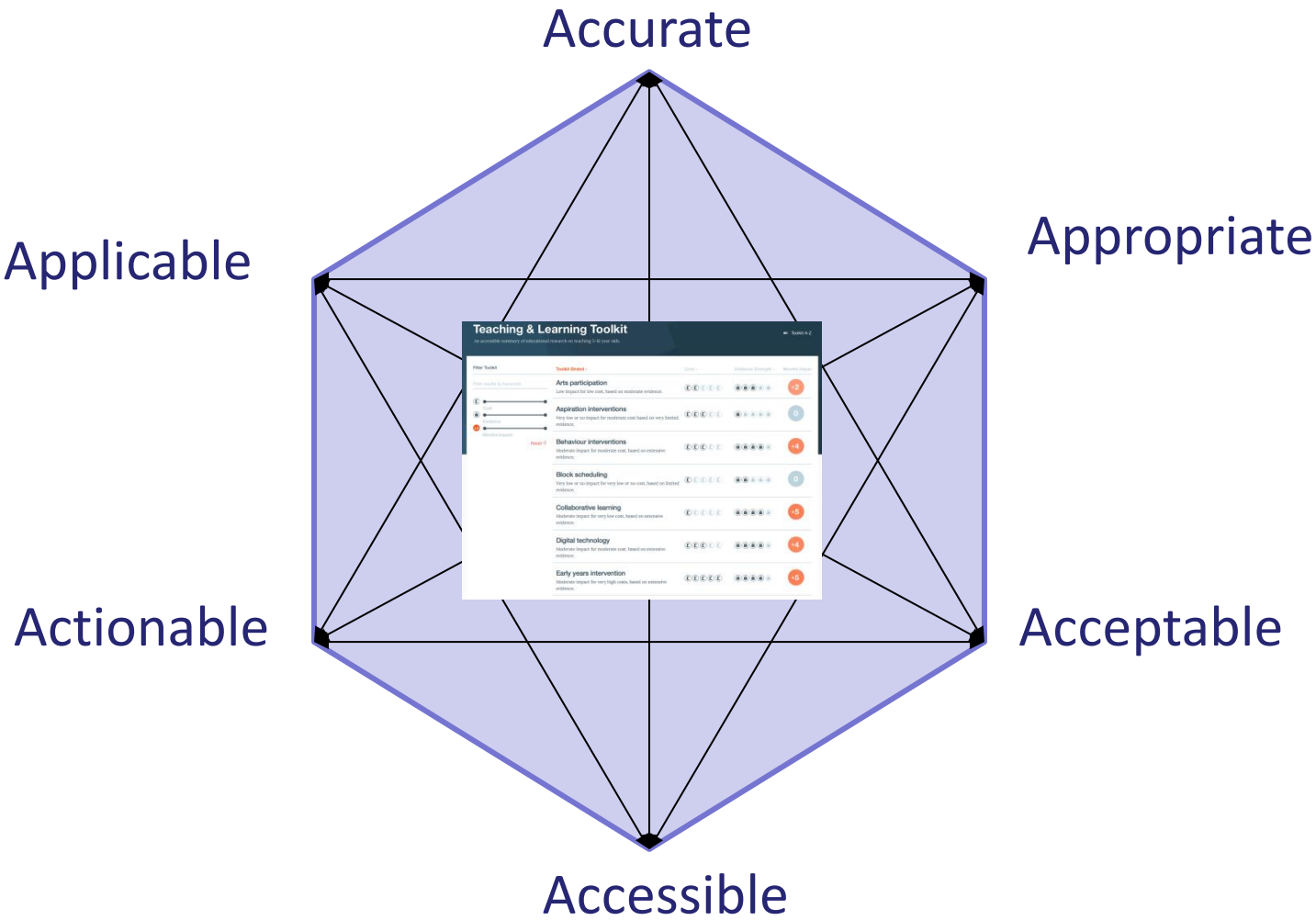
Toolkit tensions



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