

Improving Learning

Improving Learning centres on the findings from different areas of education-focused research that support evidence-informed teaching and contextualises these results to support decision-making in schools. It also describes the origins and principles of meta-analysis in education and how this identifies the successes in improving learning in classrooms. Moreover, it explains the thinking behind the ‘Teaching and Learning Toolkit’ and similar approaches, which seek a big-picture overview of research findings. The advantages and disadvantages of this approach are explored with practical examples. Additionally, it identifies the issues in using research evidence in education and the steps that can be taken to improve this.

It is not a manual on how to conduct a meta-analysis; instead the focus is on developing understanding of the approach in order to present its strengths and weaknesses. This understanding can advance critical engagement and effective use to improve educational outcomes for children and young people.

Steven Higgins is Professor of Education at Durham University. As a former primary school teacher, he has a particular interest in the interpretation and application of research in schools. He is the lead author of the Sutton Trust – Education Endowment Foundation Teaching and Learning Toolkit and led an Economic and Social Research Council researcher development initiative on meta-analysis.

Improving Learning

*Meta-analysis of Intervention Research
in Education*

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This book is about the application and interpretation of meta-analysis of intervention research in education to support teaching and learning in schools. It tells the story, often from my own personal understanding, of the development of meta-analysis and ‘meta-synthesis’ in particular, so as to provide a background to the thinking behind the Sutton Trust – Education Endowment Foundation Teaching and Learning Toolkit (Toolkit) and other similar approaches which seek to get a ‘big picture’ overview of findings from educational research using meta-analysis.

The book then presents some of the findings from the Toolkit from different areas of education research and sets these in context to support further application and use. It also lays out my personal thinking about the use of research evidence in education and some of the steps we might take to develop and improve this.

It is not a manual or a textbook about conducting a meta-analysis; there are already excellent resources to support those wishing to do this. My focus is on developing understanding of the approach so as to present its strengths and weaknesses. This will, I hope, make the limitations clearer in terms of the claims made but also help to know what can reasonably be inferred from research findings in terms of critical engagement and use.

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Abbreviations

ANOVA	Analysis of variance
CI	Confidence intervals
CONSORT	Consolidated Standards for Reporting Trials
DfE	Department for Education
EEF	Education Endowment Foundation
ESRC	Economic and Social Research Council
Ofsted	Office for Standards in Education, Children's Services and Skills
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-analyses
RCT	Randomised controlled trial
SD	Standard Deviation
SE	Standard error
Toolkit	The Sutton Trust – Education Endowment Foundation Teaching and Learning Toolkit