

Small group tuition

Moderate impact for low cost based on moderate evidence

Small group tuition is defined as one teacher, trained teaching assistant or tutor working with two to five pupils together in a group.

Implementation cost



Evidence strength



Impact (months)



Subject breakdown

maths: 14
reading: 43
toolkit: 62

School phase breakdown

primary: 52
secondary: 10
toolkit: 62

Technical Appendix

The criteria used to judge the inclusion of studies in the Toolkit are:

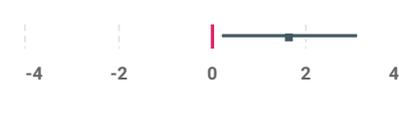
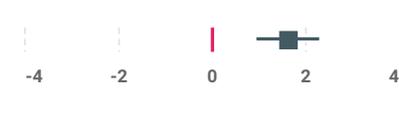
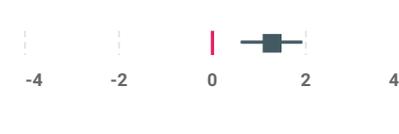
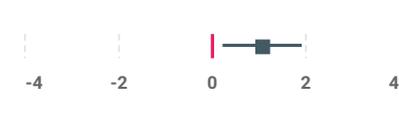
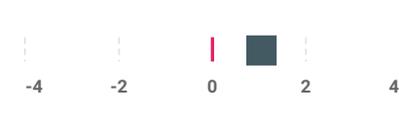
- The population sampled involved early years and school age learners from 3-18 learning in their first language.
- The intervention or approach being tested was educational in nature, including named or clearly defined programmes and recognisable approaches classifiable according to the Toolkit strand definitions (e.g. peer tutoring or small group teaching). The intervention or approach is undertaken in a normal educational setting or environment for the learners involved, such as a nursery or school or a typical setting (e.g. an outdoor field centre or museum).
- A valid comparison was made between those receiving the educational intervention or approach and those not receiving it.
- Outcomes include the assessment of educational or cognitive achievement which reports quantitative results from testing of attainment or learning outcomes, such as by standardised tests or other appropriate curriculum assessments or school examinations or appropriate cognitive measures.
- The study design provided a quantitative estimate of the impact of the intervention or approach on the educational attainment of the sample, calculated or estimated in the form of an effect size (standardised mean difference) based on a counterfactual comparison.

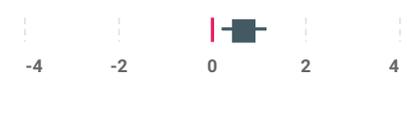
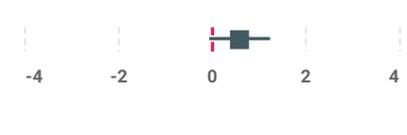
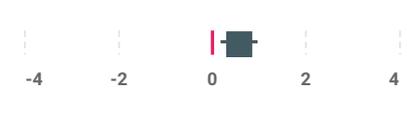
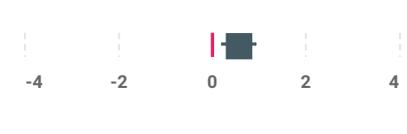
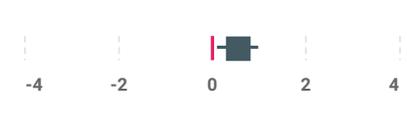
Standardised mean differences and confidence intervals for the most appropriate estimates of the impact of the intervention or approach for the Toolkit were extracted from each included study, along with other study variables. These effect sizes were further synthesised into a single pooled effect using a random effects meta-analysis adopting a restricted maximum likelihood (REML) estimation methods. For the full details of the methodology see the [Protocol and Analysis Plan \(https://educationendowmentfoundation.org.uk/public/files/Toolkit/EEF_Evidence_Database_Protocol_and_Analysis_Plan_June2019.pdf\)](https://educationendowmentfoundation.org.uk/public/files/Toolkit/EEF_Evidence_Database_Protocol_and_Analysis_Plan_June2019.pdf).

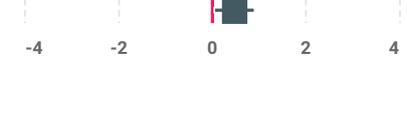
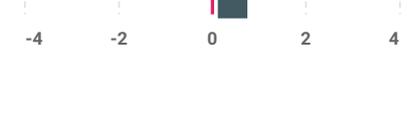
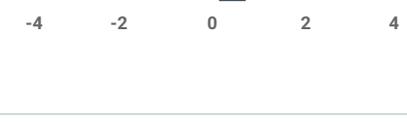
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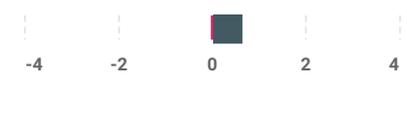
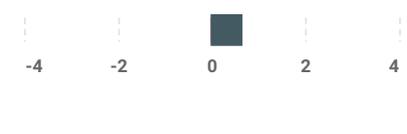
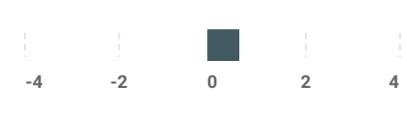
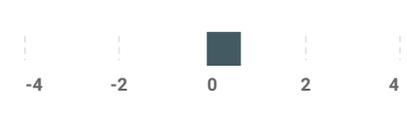
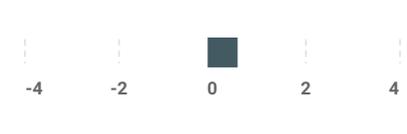
The forest plot below is a graphical representation of the results of all included studies in this Toolkit strand. It shows the effect size and confidence interval of each study, and whether the particular intervention in that study was more or less effective than standard practice or other alternative interventions that the study looked at.

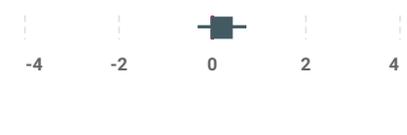
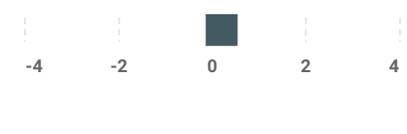
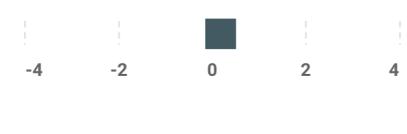
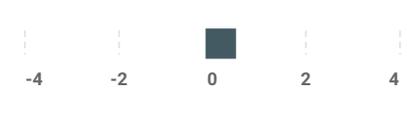
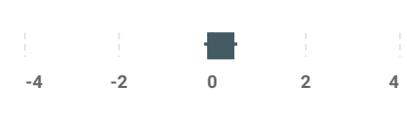
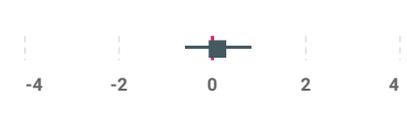
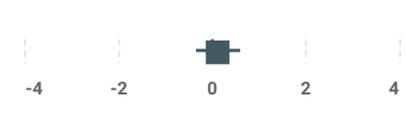
Studies that show an effect size result on the right-hand side of the red vertical red indicate that the particular intervention studied was more effective than standard practice. Studies that show an effect size on the left-hand side of the red vertical indicate that the particular intervention studied was less effective than standard practice.

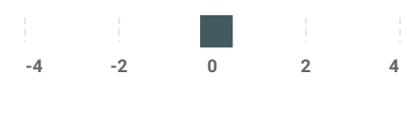
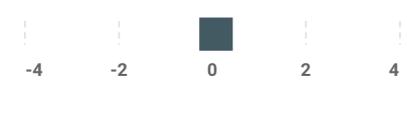
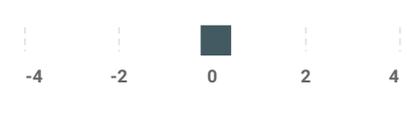
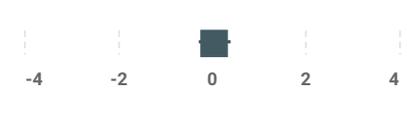
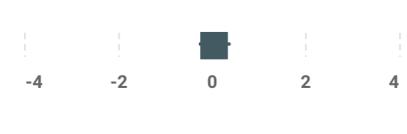
Author	Title	Effect Size	Effect Size (Graph)
Gilbert (2013)	Efficacy of a First-Grade Responsiveness-to-Intervention Prevention Model for Struggling Readers <i>(Reading Research Quarterly)</i>	Effect Size: 1.784 LCI: 1.423 UCI: 2.144 Weight: 1.714 Standard error: 0.184	
Kuhn (2005)	A Comparative Study of Small Group Fluency Instruction <i>(Reading Psychology)</i>	Effect Size: 1.65 LCI: 0.184 UCI: 3.116 Weight: 0.415 Standard error: 0.748	
Puhalla (2011)	Enhancing the Vocabulary Knowledge of First-Grade Children with Supplemental Booster Instruction <i>(Remedial and Special Education)</i>	Effect Size: 1.614 LCI: 0.926 UCI: 2.303 Weight: 1.118 Standard error: 0.351	
Lowenthal (1981) SGT	Effect of Small-Group Instruction on Language-Delayed Preschoolers <i>(Exceptional Children)</i>	Effect Size: 1.265 LCI: 0.586 UCI: 1.944 Weight: 1.133 Standard error: 0.346	
Ryder (2008)	Explicit instruction in phonemic awareness and phonemically based decoding skills as an intervention strategy for struggling readers in whole language classrooms <i>(Reading and Writing)</i>	Effect Size: 1.064 LCI: 0.199 UCI: 1.93 Weight: 0.875 Standard error: 0.442	
Fuchs (2013)	Improving at-risk learners' understanding of fractions <i>(Journal of Educational Psychology)</i>	Effect Size: 1.064 LCI: 0.804 UCI: 1.324 Weight: 1.896 Standard error: 0.133	

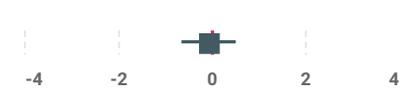
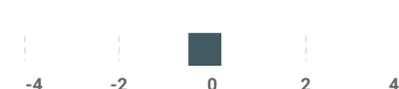
Author	Title	Effect Size	Effect Size (Graph)
Mathes (2003) SGT	A comparison of teacher-directed versus peer-assisted instruction to struggling first-grade readers. <i>(The Elementary School Journal)</i>	Effect Size: 0.709 LCI: 0.181 UCI: 1.236 Weight: 1.393 Standard error: 0.269	
Bemboom (2013)	A Comparison of Lower- and Higher-Resourced Tier 2 Reading Interventions for High School Sophomores <i>(Learning Disabilities Research and Practice)</i>	Effect Size: 0.677 LCI: 0.178 UCI: 1.176 Weight: 1.447 Standard error: 0.255	
Ketterlin-Geller (2008)	Making Connections in Mathematics: Conceptual Mathematics Intervention for Low-Performing Students: RASE RASE TL & LD <i>(Remedial and Special Education)</i>	Effect Size: 0.675 LCI: -0.19 UCI: 1.539 Weight: 0.876 Standard error: 0.441	
Moody (1971) SGT 1_1	The effect of class size on the learning of mathematics: parametric study <i>(Journal of Research in Mathematics)</i>	Effect Size: 0.601 LCI: 0.247 UCI: 0.955 Weight: 1.726 Standard error: 0.181	
Schuele (2008) SGT	Field-Based Evaluation of Two-Tiered Instruction for Enhancing Kindergarten Phonological Awareness <i>(Early Education and Development)</i>	Effect Size: 0.583 LCI: -0.086 UCI: 1.252 Weight: 1.149 Standard error: 0.341	
Nicolson (1999)	Early Reading Intervention Can Be Effective and Cost-Effective <i>(British Journal of Educational Psychology)</i>	Effect Size: 0.57 LCI: 0.156 UCI: 0.985 Weight: 1.61 Standard error: 0.211	
Fien (2011)	Enhancing Teacher Read Alouds With Small-Group Vocabulary Instruction for Students With Low Vocabulary in First-Grade Classrooms <i>(School Psychology Review)</i>	Effect Size: 0.564 LCI: 0.166 UCI: 0.962 Weight: 1.641 Standard error: 0.203	
Torgesen (2010)	Computer-assisted instruction to prevent early reading difficulties in students at risk for dyslexia: Outcomes from two instructional approaches <i>(Annals of Dyslexia)</i>	Effect Size: 0.538 LCI: 0.079 UCI: 0.997 Weight: 1.524 Standard error: 0.234	
Case (2010)	Validation of a Supplemental Reading Intervention for First-Grade Children <i>(Journal of Learning Disabilities)</i>	Effect Size: 0.534 LCI: -0.196 UCI: 1.265 Weight: 1.055 Standard error: 0.373	

Author	Title	Effect Size	Effect Size (Graph)
Rashotte (2001)	The effectiveness of a group reading instruction program with poor readers in multiple grades <i>(Learning Disability Quarterly)</i>	Effect Size: 0.523 LCI: 0.151 UCI: 0.895 Weight: 1.692 Standard error: 0.19	
Lennon (1999)	Early Intervention in Reading: Results of a Screening and Intervention Program for Kindergarten Students <i>(School Psychology Review)</i>	Effect Size: 0.518 LCI: 0.175 UCI: 0.862 Weight: 1.746 Standard error: 0.175	
Fawcett (2001)	Effectiveness of Reading Intervention in Junior School <i>(Educational Psychology: An International Journal of Experimental Educational Psychology)</i>	Effect Size: 0.471 LCI: 0.038 UCI: 0.903 Weight: 1.574 Standard error: 0.221	
Fuchs (2016)	Supported self-explaining during fraction intervention <i>(Journal of Educational Psychology)</i>	Effect Size: 0.431 LCI: 0.142 UCI: 0.721 Weight: 1.846 Standard error: 0.148	
Merrell (2015)	Butterfly Phonics: Evaluation Report and Executive Summary <i>(NA)</i>	Effect Size: 0.43 LCI: 0.018 UCI: 0.842 Weight: 1.615 Standard error: 0.21	
Vadasy (2008) SGT	Code-oriented instruction for kindergarten students at risk for reading difficulties: a replication and comparison of instructional groupings <i>(Reading and Writing)</i>	Effect Size: 0.41 LCI: 0.022 UCI: 0.798 Weight: 1.661 Standard error: 0.198	
Graves (2011)	The Effects of Tier 2 Literacy Instruction in Sixth Grade: Toward the Development of a Response-To-Intervention Model in Middle School <i>(Learning Disability Quarterly)</i>	Effect Size: 0.406 LCI: -0.15 UCI: 0.962 Weight: 1.342 Standard error: 0.284	
Moody (1971) SGT 1_2	The effect of class size on the learning of mathematics: parametric study <i>(Journal of Research in Mathematics)</i>	Effect Size: 0.359 LCI: 0.01 UCI: 0.708 Weight: 1.736 Standard error: 0.178	
Rolfhus (2012)	An Evaluation of "Number Rockets": A Tier-2 Intervention for Grade 1 Students at Risk for Difficulties in Mathematics. Final Report. NCEE 2012-4007 <i>(NA)</i>	Effect Size: 0.337 LCI: 0.2 UCI: 0.475 Weight: 2.07 Standard error: 0.07	

Author	Title	Effect Size	Effect Size (Graph)
Kroesbergen (2004)	Effectiveness of explicit and constructivist mathematics instruction for low-achieving students in the Netherlands (<i>Elementary School Journal</i>)	Effect Size: 0.326 LCI: 0.033 UCI: 0.619 Weight: 1.839 Standard error: 0.15	
Gyanani (1995) SGT	Effects of Peer Tutoring on Abilities and Achievement (<i>Contemporary Educational Psychology</i>)	Effect Size: 0.318 LCI: 0.126 UCI: 0.51 Weight: 2.002 Standard error: 0.098	
Vaughn (2011)	Effects of Individualized and Standardized Interventions on Middle School Students with Reading Disabilities (<i>Exceptional Children</i>)	Effect Size: 0.268 LCI: -0.135 UCI: 0.672 Weight: 1.631 Standard error: 0.206	
Kroesbergen (2002)	Teaching multiplication to low math performers: Guided versus structured instruction (<i>Instructional Science</i>)	Effect Size: 0.263 LCI: -0.219 UCI: 0.745 Weight: 1.479 Standard error: 0.246	
Pinnell (1994)	Comparing Instructional Models for the Literacy Education of High-Risk First Graders (<i>Reading Research Quarterly</i>)	Effect Size: 0.25 LCI: -0.188 UCI: 0.687 Weight: 1.565 Standard error: 0.223	
Nielsen (2012)	A Study of the Effectiveness of a Small-Group Intervention on the Vocabulary and Narrative Development of At-Risk Kindergarten Children (<i>Reading Psychology</i>)	Effect Size: 0.249 LCI: -0.495 UCI: 0.993 Weight: 1.035 Standard error: 0.38	
Gorard (2015)	Fresh Start: Evaluation report and executive summary (NA)	Effect Size: 0.239 LCI: 0.047 UCI: 0.431 Weight: 2.002 Standard error: 0.098	
McNally (2016) 1_1	ABRA: Online Reading Support. Evaluation Report and Executive Summary (NA)	Effect Size: 0.231 LCI: 0.229 UCI: 0.233 Weight: 2.146 Standard error: 0.001	
Gunn (2005)	Fostering the development of reading skill through supplemental instruction: Results for hispanic and non-hispanic students (<i>Journal of Special Education</i>)	Effect Size: 0.228 LCI: -0.044 UCI: 0.499 Weight: 1.877 Standard error: 0.138	

Author	Title	Effect Size	Effect Size (Graph)
Denton (2010)	A Pilot Study of a Kindergarten Summer School Reading Program in High-Poverty Urban Schools <i>(Elementary School Journal)</i>	Effect Size: 0.204 LCI: -0.337 UCI: 0.745 Weight: 1.369 Standard error: 0.276	
Ransford-Kaldon (2010)	Implementation of Effective Intervention: An Empirical Study to Evaluate the Efficacy of Fountas & Pinnell's Leveled Literacy Intervention System (LLI). 2009-2010 <i>(NA)</i>	Effect Size: 0.191 LCI: 0 UCI: 0.383 Weight: 2.003 Standard error: 0.098	
Torgerson (2018)	Tutor Trust : Affordable Primary Tuition Evaluation report and executive summary <i>(NA)</i>	Effect Size: 0.19 LCI: -0.055 UCI: 0.435 Weight: 1.922 Standard error: 0.125	
Mathes (2005) 1_2	The effects of theoretically different instruction and student characteristics on the skills of struggling readers <i>(Reading Research Quarterly)</i>	Effect Size: 0.189 LCI: -0.117 UCI: 0.495 Weight: 1.816 Standard error: 0.156	
Vadasy (2009)	Supplemental Fluency Intervention and Determinants of Reading Outcomes <i>(Scientific Studies of Reading)</i>	Effect Size: 0.182 LCI: -0.172 UCI: 0.535 Weight: 1.728 Standard error: 0.18	
Nunes (2018)	1stClass@Number: Evaluation report and executive summary <i>(NA)</i>	Effect Size: 0.18 LCI: -0.075 UCI: 0.435 Weight: 1.905 Standard error: 0.13	
Ehri (2007) SGT	Reading Rescue: An effective tutoring intervention model for language-minority students who are struggling readers in first grade <i>(American Educational Research Journal)</i>	Effect Size: 0.176 LCI: -0.196 UCI: 0.548 Weight: 1.692 Standard error: 0.19	
Sindelar (1982)	The Effects of Cross-Aged Tutoring on the Comprehension Skills of Remedial Reading Students <i>(Journal of Special Education)</i>	Effect Size: 0.124 LCI: -0.606 UCI: 0.853 Weight: 1.057 Standard error: 0.372	
Gottshall (2007)	Gottshall Early Reading Intervention: A phonics based approach to enhance the achievement of low performing, rural, first grade boys <i>(NA)</i>	Effect Size: 0.121 LCI: -0.37 UCI: 0.612 Weight: 1.462 Standard error: 0.25	

Author	Title	Effect Size	Effect Size (Graph)
Torgerson (2014)	Grammar for Writing: Evaluation report and executive summary (NA)	Effect Size: 0.1 LCI: -0.096 UCI: 0.296 Weight: 1.997 Standard error: 0.1	
Torgesen (2006)	National Assessment of Title I: Interim Report. Volume II: Closing the Reading Gap: First Year Findings from a Randomized Trial of Four Reading Interventions for Striving Readers (NA)	Effect Size: 0.09 LCI: -0.067 UCI: 0.247 Weight: 2.048 Standard error: 0.08	
Cabezas (2011) SGT	Effects of short-term tutoring on cognitive and non-cognitive skills: Evidence from a randomized evaluation in Chile (Unpublished manuscript)	Effect Size: 0.08 LCI: -0.022 UCI: 0.182 Weight: 2.103 Standard error: 0.052	
Mathes (2005) 1_1	The effects of theoretically different instruction and student characteristics on the skills of struggling readers (Reading Research Quarterly)	Effect Size: 0.059 LCI: -0.216 UCI: 0.334 Weight: 1.872 Standard error: 0.14	
Jiménez (2010)	Implementation of Response to Intervention (RtI) Model in Spain: An example of a collaboration between Canarian universities and the department of education of the Canary Islands (Psicothema)	Effect Size: 0.059 LCI: -0.193 UCI: 0.312 Weight: 1.909 Standard error: 0.129	
Vellutino (2006)	Response to intervention as a vehicle for distinguishing between children with and without reading disabilities: Evidence for the role of kindergarten and first-grade interventions (Journal of Learning Disabilities)	Effect Size: 0.048 LCI: -0.311 UCI: 0.407 Weight: 1.716 Standard error: 0.183	
Vellutino (2008)	Using response to kindergarten and first grade intervention to identify children at-risk for long-term reading difficulties (Reading and Writing)	Effect Size: 0.048 LCI: -0.311 UCI: 0.407 Weight: 1.716 Standard error: 0.183	
Vaughn (2010)	The relative effects of group size on reading progress of older students with reading difficulties (Reading and Writing)	Effect Size: 0.01 LCI: -0.288 UCI: 0.308 Weight: 1.831 Standard error: 0.152	
Tracey (2019)	Grammar for Writing (Effectiveness Trial) - Evaluation report and executive summary (NA)	Effect Size: -0.02 LCI: -0.075 UCI: 0.035 Weight: 2.133 Standard error: 0.028	

Author	Title	Effect Size	Effect Size (Graph)
Fuchs (2002)	Explicitly Teaching for Transfer: Effects on the Mathematical Problem-Solving Performance of Students with Mathematics Disabilities <i>(Learning Disabilities: Research & Practice)</i>	Effect Size: -0.021 LCI: -0.897 UCI: 0.856 Weight: 0.862 Standard error: 0.447	
King (2015)	Rapid Phonics: Evaluation report and executive summary <i>(NA)</i>	Effect Size: -0.05 LCI: -0.344 UCI: 0.244 Weight: 1.838 Standard error: 0.15	
Wanzek (2008)	Response to Varying Amounts of Time in Reading Intervention for Students with Low Response to Intervention <i>(Journal of Learning Disabilities)</i>	Effect Size: -0.073 LCI: -0.634 UCI: 0.489 Weight: 1.331 Standard error: 0.287	
Buchanan (2015) Pri	Tutor Trust Primary: Evaluation report and executive summary <i>(NA)</i>	Effect Size: -0.08 LCI: -0.33 UCI: 0.17 Weight: 1.914 Standard error: 0.128	
Sheard (2015)	Units of Sound: Evaluation report and executive summary <i>(NA)</i>	Effect Size: -0.08 LCI: -0.27 UCI: 0.11 Weight: 2.005 Standard error: 0.097	
Loftus (2010)	Effects of a Supplemental Vocabulary Intervention on the Word Knowledge of Kindergarten Students At Risk for Language and Literacy Difficulties <i>(Learning Disabilities Research and Practice)</i>	Effect Size: -0.083 LCI: -0.683 UCI: 0.516 Weight: 1.264 Standard error: 0.306	
Styles (2014)	Chatterbooks: Evaluation report and executive summary <i>(NA)</i>	Effect Size: -0.14 LCI: -0.311 UCI: 0.031 Weight: 2.031 Standard error: 0.087	
Buchanan (2015) Sec	Tutor Trust Secondary: Evaluation report and executive summary <i>(NA)</i>	Effect Size: -0.16 LCI: -0.291 UCI: -0.029 Weight: 2.077 Standard error: 0.067	
Peterson (1979) SGT	Individual characteristics and children's learning in large-group and small-group approaches <i>(Journal of Educational Psychology)</i>	Effect Size: -0.175 LCI: -0.568 UCI: 0.218 Weight: 1.652 Standard error: 0.2	

Author	Title	Effect Size	Effect Size (Graph)
Westerveld (2008)	Oral Narrative Intervention for Children with Mixed Reading Disability <i>(Child Language Teaching and Therapy)</i>	Effect Size: -1.057 LCI: -2.432 UCI: 0.318 Weight: 0.46 Standard error: 0.702	
Fuchs (2014)	Does working memory moderate the effects of fraction intervention? An aptitude-treatment interaction <i>(Journal of Educational Psychology)</i>	Effect Size: -1.062 LCI: -1.345 UCI: -0.778 Weight: 1.855 Standard error: 0.145	