

The evidence base for Direct Instruction is comprehensive

Direct Instruction's rigorous approach to pedagogy and curriculum has been shown—over almost fifty years and through many hundreds of studies—to deliver significant and sustained gains in student outcomes. It is one of the most effective forms of instruction for literacy and numeracy, for learners with diverse skills and from a range of backgrounds. As with any approach studied so comprehensively, a small number of research papers have not replicated such highly favourable results, yet the overwhelming academic evidence confirms the efficacy and consistency of Direct Instruction on student outcomes.

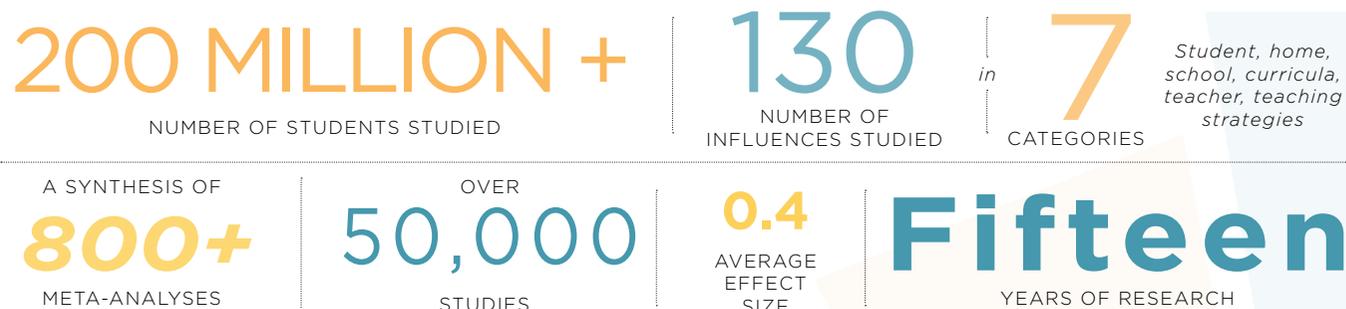
One of the largest collections of research ever undertaken was collated over a 15-year period by John Hattie, a Professor of Education and Director of the Melbourne Education Research Institute at the University of Melbourne. In 2009, Hattie published an internationally acclaimed synthesis of research on 'what actually works in schools to improve learning', covering over 800 meta-analyses and millions of students.⁶⁵ The study used effect size, a simple measure for quantifying the difference between two

Citing an individual study to prove that Direct Instruction isn't effective is like citing a rainstorm to prove that the Sahara isn't a desert.

—Joe Kirby, *British Educationalist*⁶⁶

groups or the same group over time, to assess the relative effectiveness of a range of approaches, interventions and actions on student outcomes. Hattie determined that, 'for students moving from one year to the next, the average effect size across all students is 0.40.' With an effect size of 0.59, the Direct Instruction program was considered to progress students one-and-a-half times faster than an average intervention and hence was shown to be one of the most effective instructional methods of the 130 influences studied.

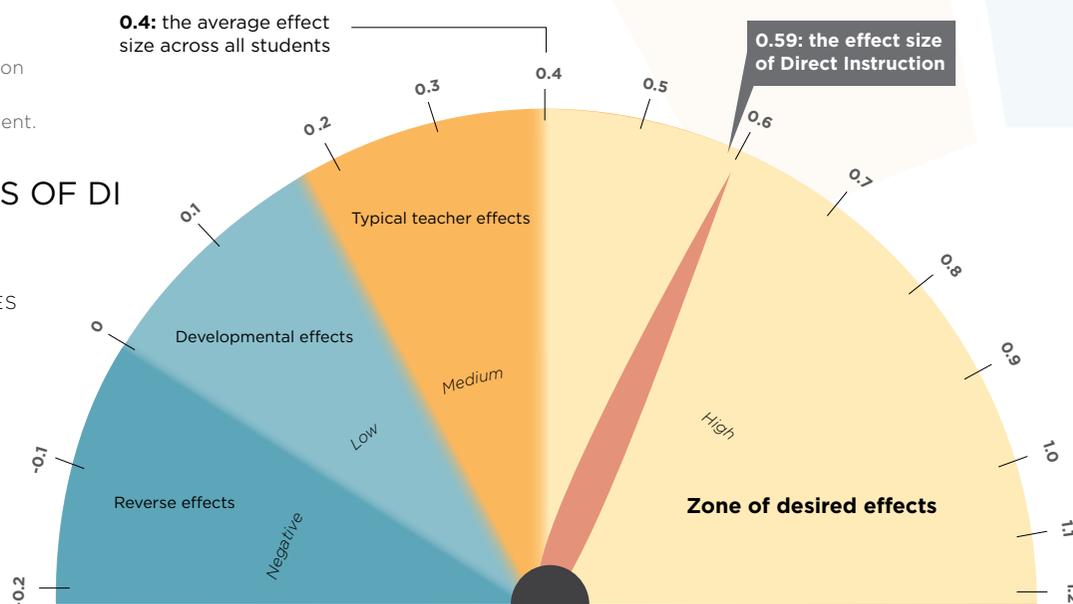
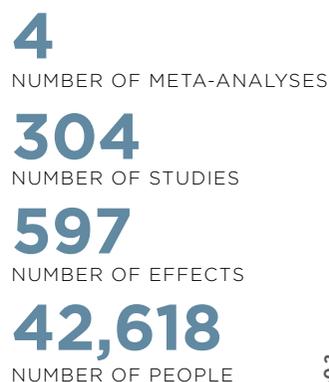
VISIBLE LEARNING BY THE NUMBERS



EFFECT SIZE

An effect size provides a common expression of the magnitude of outcomes for student achievement.

HATTIE'S ANALYSIS OF DI



Another large study adding to the wealth of Direct Instruction evidence was undertaken in 2009. The study, 'Evaluating the core' assessed 30,000 early primary school students in Florida for oral reading fluency, and found students who were taught using the DI Reading Mastery program had greater oral reading fluency. These children also exceeded the grade-level benchmark more frequently than their peers.⁶⁷

Although Direct Instruction is most often associated with the teaching of literacy, it also includes a number of highly successful maths courses, with similarly compelling evidence of effectiveness. For example, a four-year study of 170 students in six Baltimore schools

One of the common criticisms is that Direct Instruction works only with very low-level or specific skills, and with lower-ability and the youngest students. These are not the findings of the meta-analyses.

—John Hattie, *Visible Learning*, 2009⁷¹

concluded that Direct Instruction increased student achievement in mathematics. Students completing Direct Instruction programs, moved, on average, from the 16th percentile of student achievement at the end of first grade to the 48th percentile by the end of third grade.

These students overtook their non-DI peers, who ended first grade on the 27th percentile, but had reached only the 36th percentile two years later.⁶⁸

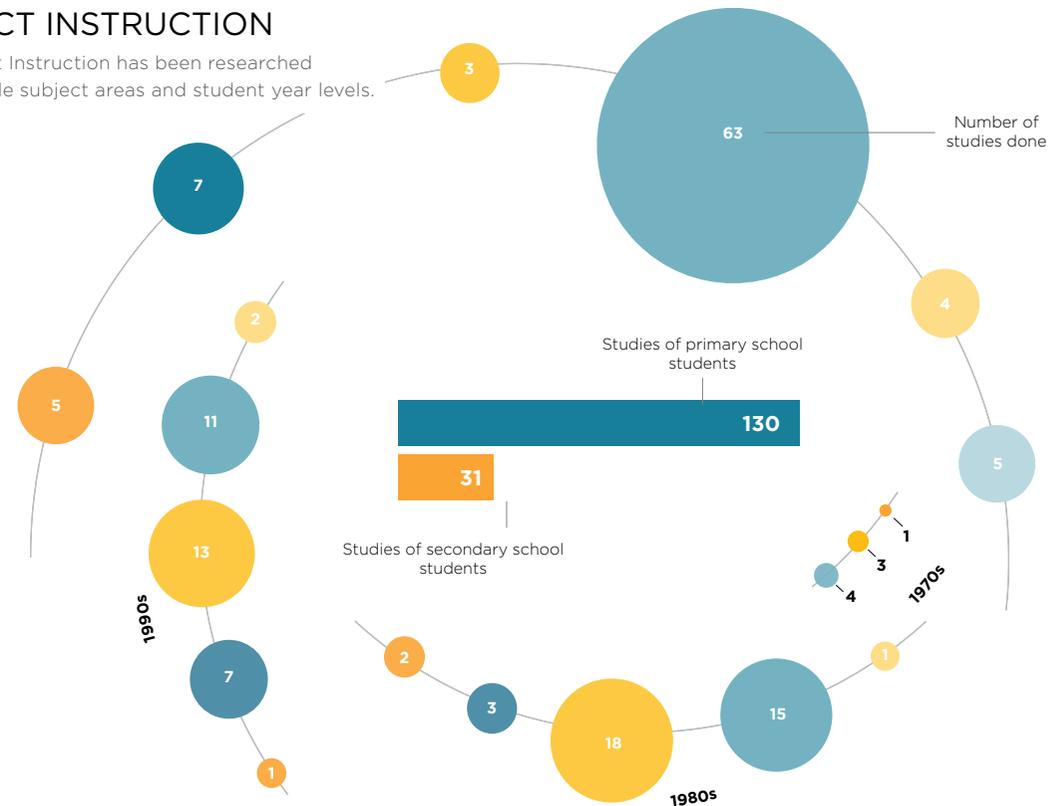
While most Direct Instruction programs are not specifically designed for use by special needs students, there are also a number of studies which show the program's efficacy in teaching students with learning difficulties. Scruggs conducted a meta-analysis of 70 studies, covering more than 2,400 students, on

STUDIES OF DIRECT INSTRUCTION

Over the past fifty years, Direct Instruction has been researched comprehensively across multiple subject areas and student year levels.

Subject studies

- Language
- Mathematics
- Multiple subjects
- Reading
- Spelling
- Writing



instruction for children with disabilities and found that the Direct Instruction program had the greatest effect on student achievement.⁶⁹

The empirical evidence base for Direct Instruction is comprehensive. Accumulated findings of decades of studies have showed that students studying with Direct Instruction have higher achievement scores and stronger growth rates than students studying with other curricula. These results have appeared

with reading and maths; in urban, rural and suburban settings; with middle class high-achieving students; with high-risk students, general education students and special education students; and with children from pre-school age through to middle school. The strong positive results appear in studies examining state test scores, curriculum-based measures and norm-referenced tests; in Australia, the United States as well as in other countries and with randomised control trials as well as quasi-experimental designs.⁷⁰