



SCIENTIFICALLY-BASED RESEARCH

EVIDENCE OF DIRECT INSTRUCTION'S EFFECTIVENESS

Direct Instruction has received the highest rating in recent meta-analyses and assessments of the scientific research basis for models of comprehensive school reform (CSR):

- *An Educator's Guide to Schoolwide Reform* (1999), a study of 24 instructional models of schoolwide reform sponsored by five national associations of educators (AASA, AFT, NAESP, and NEA). Direct Instruction was only one of two models for elementary and middle schools that received a “strong” rating for evidence of positive effects on student achievement. This report was the first that systematically evaluated and rated each of the most prominent CSR models, “based on what the research shows about the model’s effects on student achievement.”
- *Comprehensive School Reform and Student Achievement* (2003), a meta-analyses of 29 Comprehensive School Reform models conducted by Dr. Geoffrey Borman (U Wisconsin-Madison) and colleagues. Direct Instruction was one of only three models found to have the “strongest evidence of effectiveness.” Models were categorized according to quality and quantity of evidence of effectiveness, and according to whether that evidence indicated “statistically significant and positive results.”
- *John Hattie's Visible Learning: A Synthesis of Over 800 Meta-Analyses Relating to Achievement* (2009) summarizes the results of four meta-analyses that examined Direct Instruction. These analyses incorporated 304 studies of over 42,000 students. Across all of these studies the average effect size was .59. This effect is significantly larger than those of any other curriculum Hattie studied and was similar for studies of general education students, special education students and low performing students. Results were also similar in mathematics and reading.
- *Research on Direct Instruction: 25 Years Beyond DISTAR* (1996) by Gary L. Adams and Siegfried Engelmann. Adams conducted a meta-analyses of 34 research articles after screening over 350 publications for appropriate features (e.g., pretest scores, comparison group research designs, use of formal DI curricula, use of statistical measures). Effect sizes were calculated for each of the articles included in the analysis that met these criteria. Thirty-two of the 34 effect size scores were positive with a mean effect size per individual variable of 0.97, and a mean effect size per study of 0.87.

To learn more about the research behind DI, visit our [DI Research Database](#). This database includes the most current contributions to the field of DI research and is searchable by keywords, subject areas, year of publication and more!