

Comprehensive School Reform and Achievement: A Meta-Analysis Educator's Summary Last Updated November 25, 2008

Which comprehensive school reform programs have been proven to help elementary and secondary students achieve? To find out, this review summarizes evidence on comprehensive school reform (CSR) models in elementary and secondary schools. Comprehensive school reform models are programs used schoolwide to improve student achievement. They typically include the following elements:

- Innovative approaches to instruction and curriculum used in many subjects throughout the school
- Extensive, ongoing professional development, and coaches or facilitators in the building to help manage the reform process
- Measurable goals and benchmarks for student achievement
- Emphasis on parent and community involvement

CSR models are developed and supported by national organizations, mostly nonprofits, that provide professional development, materials, and support to networks of schools.

Key Findings

The review examined 232 studies to determine the strength of effectiveness for 29 Comprehensive School Reform (CSR) models. According to the authors, the evidence supports six primary findings:

There are a limited quantity and quality of studies supporting CSR achievement effects—Only 12 reform models are supported by five or more studies of their achievement effects. Only 4 models have been the subject of five or more third-party studies that used comparison groups. More than 40% of the analyses have used some type of quasi-experimental control group. Only seven studies of 3 CSR models, or about 3% of all studies of the achievement effects associated with CSR, have generated evidence from randomized experiments. In addition, many of the studies did not present sufficient detail to allow for replication of the findings. The authors suggest that these limitations are due to the recent emergence of CSR models.

Overall effects of CSR are greater than the effects of other interventions designed to serve similar purposes and student and school populations—Overall, CSR schools can be expected to score one eighth of a standard deviation, or 2.5 NCEs, higher on achievement tests than non-CSR schools.

Differences in the effectiveness of CSR are largely due to unmeasured program-specific and school-specific differences in implementation—Whether a model requires a component

such as ongoing staff professional development or specific curricular materials does little to predict achievement outcomes. Similarly, diverse characteristics of schools, level of technical support, or cost of a model do not help predict variability of effect. However, requiring the active involvement of parents and the local community in school governance and improvement activities tends to result in worse outcomes than models not requiring these activities.

Methodological differences across the studies yielded greater differences in effects than the general programmatic components of the CSR models—For example, studies performed by the developer yielded considerably stronger effects than studies performed by others. This factor raises questions of developer bias.

Models meeting the highest standard of evidence are the only CSR models to have clearly established that their effects are relatively robust and the models can be expected to improve test scores—Models meeting the standard for the Strongest Evidence of Effectiveness category are distinguished by the quantity and generalizability of their outcomes, quality of evidence, and reliable effects on achievement. These models are Direct Instruction, the School Development Program, and Success for All.

Number of years of model implementation has important implications for understanding CSR effects on achievement—The strong effects of CSR beginning after the 5th year of implementation may be explained in two ways: a potential cumulative impact of CSR or a self-selection artifact.

Program Ratings

Listed below are currently available programs, grouped by strength of effectiveness. Within each group, programs are listed alphabetically.

Strongest Evidence of Effectiveness

Rating	Program	Description	Contact / Website
	Direct Instruction	Field-tested reading, language arts, and math curricula with highly scripted and interactive lesson strategies, extensive writing, and frequent assessments of students.	E-mail: info@nifdi.org Website: www.nifdi.org

Best Evidence
Encyclopedia (BEE)

Empowering Educators with Evidence on Proven Programs

www.bestevidence.org

Rating	Program	Description	Contact/Website
	School Development Program	A comprehensive school plan that focuses on consensus and collaboration. Includes a school planning and management team, a student and staff support team, and a parent team.	E-mail: beverly.crowther@yale.edu Website: www.schooldevelopmentprogram.org
	Success for All	Research-proven, prescribed curriculum in the areas of reading, writing, and language arts that includes one-to-one tutoring, a family support team, cooperative learning, on-site facilitation, and a building advisory team.	E-mail: sfainfo@successforall.org Website: www.successforall.org

Highly Promising Evidence of Effectiveness

Rating	Program	Description	Contact / Website
	Expeditionary Learning Outward Bound	Authentic projects and fieldwork, high expectations for all students, shared decision making, and regular reviews of student achievement and level of implementation.	E-mail: greg_farrell@elob.org Website: www.elob.org
	Modern Red Schoolhouse	Curriculum with high standards for all students, an emphasis on character, and an individual education compact for each student. Technology is a key component.	E-mail: info@mrsh.org Website: www.mrsh.org

Best Evidence
Encyclopedia (BEE)

Empowering Educators with Evidence on Proven Programs

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Rating	Program	Description	Contact/Website
	Roots & Wings	Research-proven, prescribed curriculum in the areas of literacy, math, and social and scientific problem solving that includes one-to-one tutoring, a family support team, on-site facilitation and a building advisory team.	E-mail: sfainfo@successforall.org Website: www.successforall.org

Promising Evidence of Effectiveness

Rating	Program	Description	Contact / Website
	Accelerated Schools	Gifted and talented instruction for all students that includes a participatory process for whole school transformation.	E-mail: info@acceleratedschools.net Website: www.acceleratedschools.net
	America's Choice	Learning focused on getting all students to standards, varying only the time and resources needed, using prevention, early intervention, and acceleration strategies.	Complete contact form at: www.americaschoice.org/contactus Website: www.americaschoice.org
	ATLAS Communities	Coherent K-12 educational programs for every student with curriculum, instruction, and assessment. Includes whole-faculty study groups and school/pathway planning and management teams.	E-mail: atlas@edc.org
	Montessori	Interdisciplinary curriculum with self-corrective, manipulative materials, open time, free choice of activity, and learning driven by a child's interest. Work is matched to a child's development level.	E-mail: davidjkahn@aol.com Website: www.montessori.com

Rating	Program	Description	Contact/Website
	Paideia	Socratic seminars, didactic instruction, and one-on-one coaching that prepares students to be lifelong learners and earn a living.	E-mail: tlrober3@uncg.edu Website: www.paideia.org/content.php/system/index.htm
	The Learning Network	Mechanism for continuous teacher professional development built into each school with a use of classroom observation, action plans, and instructional dialogue as the vehicles for change.	E-mail: richardowen@rcowen.com Website: www.rcowen.com

Other Ratings

Greatest Need for Additional Research

Audrey Cohen
 Center for Effective Schools
 Child Development Project
 Coalition of Essential Schools
 Community for Learning
 Community Learning Centers
 Co-nect
 Core Knowledge
 Different Ways of Knowing
 Edison
 High Schools That Work
 High/Scope
 Integrated Thematic Instruction
 MicroSociety
 Onward to Excellence II
 Talent Development High School
 Urban Learning Centers

Review Methods

Borman et al. included 29 CSR models that had been replicated in at least 10 schools and had been evaluated in at least one study. They did an extensive search for all types of studies. Studies were included if they met the following criteria:

- Schools using each program had to be compared to equivalent control groups
- Achievement data had to be sufficient to allow effect sizes to be computed
- Schools had to be in the U.S.
- Students had to be in the regular education program

Program Ratings Basis

CSR programs were rated in terms of the strength of their evidence of effectiveness in four categories:



Strongest Evidence of Effectiveness



Highly Promising Evidence of Effectiveness



Promising Evidence of Effectiveness



Greatest Need for Additional Research

Programs were assigned to categories based on a combination of three criteria (Borman et al., 2003, p. 154):

1. Quality of evidence: Does the CSR model have research evidence from control-group studies and third-party control group studies?
2. Quantity of evidence: Does the CSR model have a relatively large number of studies? (10 studies overall and 5 third-party studies were required to be in the top category)
3. Statistically significant and positive results: Does the evidence from control-group studies show effects that are significantly positive?

Full Report

Borman, G., Hewes G., Overman, L., & Brown, S. (2003, Summer). Comprehensive school reform and achievement: A meta-analysis. *Review of Educational Research*, 73, 2, 125-230. www.successforall.net/_images/pdfs/Borman_CSR_meta_RER.pdf