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## Effective Reading Programs for Middle and High Schools: A Best Evidence Synthesis Educator's Summary Last updated September 16, 2008\*

What reading programs have been proven to help middle and high school students to succeed? To find out, this review summarizes evidence on four types of programs designed to improve the reading achievement of students in grades 6-12:

- **Reading Curricula (Curr)**, such as *LANGUAGE!*, *McDougal Littell*, and other standard and alternative textbooks.
- **Computer-Assisted Instruction (CAI)**, such as *Jostens/Compass Learning*, and *Accelerated Reader*.
- **Instructional Process Programs (IP)**, such as cooperative learning, strategy instruction, and other approaches primarily intended to change teachers' instructional methods rather than curriculum or textbooks.
- **Combined CAI and Instructional Process Models (CAI + IP)** such as *READ 180* and *Voyager Passport*.

\* **Note:** This summary is a slight update of the article published in the *Reading Research Quarterly*: 43(3), 290-322.

### Key Findings

Overall, 36 experimental-control comparisons met the inclusion criterion, of which 7 used random assignment to treatments. No studies of reading curricula qualified, but there were 8 studies of CAI, 16 of instructional process programs, 10 of combined CAI and instructional process programs, and 2 of combined curriculum and instructional process programs. Effect sizes were averaged across studies, weighted by sample size.

- **Computer-Assisted Instruction (CAI)**. Studies of CAI find minimal achievement outcomes. Mean weighted effect size across 8 studies: +0.10.
- **Instructional Process Strategies (IP)**. The largest number of high-quality studies evaluated instructional process programs, especially forms of cooperative learning (ES= +0.28 in 7 studies). Mean weighted effect size across 14 studies: +0.21.

- **Combined CAI and Instructional Process Programs (CAI + IP).** Positive effects were found for READ 180. Mean weighted effect size across 9 studies: +0.22.
- **Combined Curriculum and Instructional Process Programs (Curr + IP).** A randomized study of REACH found an effect size of 0.00, and the same study found an effect size of +0.17 for RISE.




## Program Ratings

Listed below are currently available programs, grouped by strength of effectiveness. Within each group, programs are listed alphabetically. The type for each program corresponds to the categories above (e.g., IP = Instructional Process Strategies).

### Strong Evidence of Effectiveness

 None


### Moderate Evidence of Effectiveness

Rating	Program	Type	Description	Contact / Website
	Jostens	CAI	Provides an extensive set of assessments which place students in an individualized instructional sequence. Students then work individually on exercises designed to fill in gaps in their skills.	Complete contact form at: <a href="http://www.compasslearning.com/Contact/Default.aspx">www.compasslearning.com/Contact/Default.aspx</a> Website: <a href="http://www.compasslearning.com">www.compasslearning.com</a>
	The Reading Edge	IP	Uses a cooperative learning structure that groups students for reading instruction according to their reading level across grades and classes.	E-mail: <a href="mailto:sfainfo@successforall.org">sfainfo@successforall.org</a> Website: <a href="http://www.successforall.org/middle/reading.htm">www.successforall.org/middle/reading.htm</a>
	READ 180	CAI + IP	An intervention program that addresses individual needs of students through differentiated instruction, adaptive and instructional software, high-interest literature, and direct instruction in reading, writing, and vocabulary skills.	Complete contact form at: <a href="http://scholastic.custhelp.com/cgi-bin/scholastic.cfg/php/enduser/ask.php">scholastic.custhelp.com/cgi-bin/scholastic.cfg/php/enduser/ask.php</a> Website: <a href="http://teacher.scholastic.com/products/read180">teacher.scholastic.com/products/read180</a>

# Best Evidence Encyclopedia (BEE)





Empowering Educators with Evidence on Proven Programs




www.bcatevidence.org

Rating	Program	Type	Description	Contact / Website
	Student Team Reading	IP, Cooperative Learning	A cooperative learning program in which students work in four or five member teams to help one another build reading skills.	E-mail: sfainfo@successforall.org Website: www.successforall.org

Curr=Reading Curriculum; CAI=Computer Assisted Instruction; IP=Instructional Process Program;  
Curr+IP=Combined Curriculum and Instructional Process Programs.

## Limited Evidence of Effectiveness

Rating	Program	Type	Description	Contact / Website
	Accelerated Reader	CAI	A supplemental program that assesses students' reading levels using a computer, which then prints out suggestions for reading materials at students' level.	E-mail: answers@renlearn.com Website: www.renlearn.com
	Benchmark Detectives	IP, Strategy	A form of strategy instruction that teaches students to use known words to decode unknown words, use context as a check for making sense, chunk words into meaningful units, and learn to be flexible in applying known word parts.	E-mail: info@sedl.org Website: <a href="http://www.sedl.org/cgi-bin/mysql/buildingreading.cgi?showrecord=8&amp;l=description">http://www.sedl.org/cgi-bin/mysql/buildingreading.cgi?showrecord=8&amp;l=description</a>
	PALS	IP, Cooperative Learning	A cooperative learning program in which students work in pairs, taking turns reading aloud to one another and engaging in summarization and prediction activities.	E-mail: PALS@vanderbilt.edu Website: kc.vanderbilt.edu/pals
	RISE	Curr + IP	An intervention guided by the philosophy that teachers, given time, resources, and strong professional development support, can create effective curriculum that is engaging and provides remediation for struggling adolescent readers.	E-mail: Evan.Lefsky@fldoe.org

Rating	Program	Type	Description	Contact / Website
	Strategy Intervention Model	IP, Strategy	A method in which low-achieving secondary students are taught metacognitive reading strategies, especially paraphrasing, to help them comprehend text.	E-mail: <a href="mailto:crl@ku.edu">crl@ku.edu</a> Website: <a href="http://www.ku-crl.org">www.ku-crl.org</a>
	Talent Development Middle School	IP, CSR	A program which focuses on classic books, more high-level questions, and additional background information for students.	E-mail: <a href="mailto:knelson@csos.jhu.edu">knelson@csos.jhu.edu</a> Website: <a href="http://web.jhu.edu/CSOS/tdmg/index.html">web.jhu.edu/CSOS/tdmg/index.html</a>
	Voyager Passport	CAI + IP	A program with whole-group instruction, flexible small-group activities, and partner practice that engages students with DVDs, online learning activities, and other instructional strategies focused on comprehension, vocabulary, fluency, and writing.	Complete contact form at: <a href="http://www.voyagerlearning.com/contact/index.jsp">www.voyagerlearning.com/contact/index.jsp</a> Website: <a href="http://www.voyagerlearning.com/passport/index.jsp">www.voyagerlearning.com/passport/index.jsp</a>

Curr=Reading Curriculum; CAI=Computer Assisted Instruction; IP=Instructional Process Program;  
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### Other Programs



#### **Insufficient Evidence**

CCC  
REACH  
Reading Apprenticeship  
Talent Development High School  
Xtreme Reading



#### **No Qualifying Studies**

100 Book Challenge  
ABD's of Reading  
Academy of Reading  
Achieve 3000  
Achieving Maximum Potential  
Advancement Via Individual Determination (AVID)  
AfterSchool KidzLit

Alphabetic Phonics  
America's Choice-Ramp Up Literacy  
AMP Reading System  
Barton Reading & Spelling System  
Be a Better Reader  
BOLD  
Boys Town Reading Curriculum  
Breaking the Code  
Bridges to Literacy  
Caught Reading  
Charlesbridge Reading Fluency  
Classworks  
Compass Learning (current version)  
Comprehension Upgrade  
Concept-Oriented Reading Instruction (CORI)  
Corrective Reading  
CRISS / Project CRISS  
Cross-Aged Literacy Program  
Direct Instruction  
Disciplinary Literacy  
Electronic Bookshelf  
Essential Learning Systems™  
Exemplary Center for Reading Instruction (ECRI)  
Failure Free Reading  
Fast ForWord  
Fast Track Reading  
First Steps  
Fluent Reader  
Glass-Analysis method  
Glencoe  
Great Leaps  
Harcourt  
HOSTS  
Houghton Mifflin  
IMPACT  
IndiVisual Reading  
InStep Readers  
Intensive Reading Strategies Instruction (IRSI) Model  
Intensive Supplemental Reading  
Jamestown Education  
Junior Great Books  
Kaplan SpellRead  
Knowledge Box

K-W-L strategy  
LANGUAGE!  
Learning Experience Approach  
Learning Upgrade  
Lexia Strategies for Older Students  
Like to Read  
Lindamood-Bell  
LitART  
Literacy First  
Literacy Seminar  
MacMillan  
McDougal-Littell  
McRAT  
Merit Software  
Multicultural Reading and Thinking  
My Reading Coach  
On Ramp Approach  
Open Book Anywhere  
Open Court  
Pathway Project  
Phonics for Reading  
Phono-Graphix  
PLATO  
Prentice Hall Literature  
Project Read  
Puente  
Questioning the Author  
QuickReads–Secondary  
Quicktionary Reading Pen II  
Ramp-Up Literacy  
Rave-O  
ReadAbout  
Read Naturally  
Read Now  
Read On!  
READ RIGHT  
Read XL  
The Reader’s Choice  
The Reader’s Journey  
Reading in the Content Areas  
Reading Horizons  
Reading Is FAME  
Reading Power in the Content Areas

Reading Plus  
Reading with Purpose  
Reciprocal Teaching  
REWARDS  
Rosetta Stone Literacy  
Saxon Phonics  
Scaffolded Reading Experience  
Scott Foresman  
Second Chance at Literacy Learning  
Second Chance Reading  
Slingerland  
Soar to Success  
Soliloquy Reading Assistant  
Sound Sheets  
Spell Read P.A.T.  
Spalding Method  
Strategic Literacy Initiative  
SuccessMaker  
Supported Literacy Approach  
Text mapping strategy  
Thinking Reader  
Thinking Works  
Transactional Strategies Instruction  
Vocabulary Improvement Program  
Voyager TimeWarp Plus  
Wilson Reading System  
Wisconsin Design for Reading Skills Development (WDRSD)  
Write to Learn

## **Review Methods**





An exhaustive search considered more than 300 published and unpublished articles. It included those that met the following criteria:

- Schools or classrooms using each program had to be compared to randomly assigned or well-matched control groups.
- Study duration had to be at least 12 weeks.
- Outcome measures had to be assessments of the reading content being taught in all classes. Almost all are standardized test, or state assessments.

- The review placed particular emphasis on studies in which schools, teachers, or students were assigned at random to experimental or control groups.

### *Program Ratings Basis*

Programs were rated according to the overall strength of the evidence supporting their effects on reading achievement. “Effect size” (ES) is the proportion of a standard deviation by which a treatment group exceeds a control group. Large studies are those involving a total of at least 10 classes or 250 students. The categories are as follows:

-  **Strong Evidence of Effectiveness:** At least one large randomized or randomized quasi-experimental study, plus at least one additional study of any qualifying design, with a collective sample size of 500 students and an overall weighted mean effect size of at least +.20.
-  **Moderate Evidence of Effectiveness:** Two large studies of any qualifying design or multiple smaller studies with a collective sample size of 500 students, with a median effect size of at least +0.20.
-  **Limited Evidence of Effectiveness:** At least one qualifying study with statistically significant differences and effect size of +0.10 or more.
-  **Insufficient Evidence of Effectiveness:** Studies show no significant differences.
- N No Qualifying Studies:** No studies met inclusion standards.

### **Full Report**

Slavin, R.E., Cheung, A., Groff, C., & Lake, C. (2008). Effective reading programs for middle and high schools: A best evidence synthesis. *Reading Research Quarterly*, 43, 3, 290-322.  
[www.bestevidence.org/word/mhs\\_read\\_Feb\\_2008\\_RRQ.pdf](http://www.bestevidence.org/word/mhs_read_Feb_2008_RRQ.pdf)