What Works Clearinghouse

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WWC identified 69 studies of 32 programs and practices

8 studies met evidence standards

8 studies met evidence standards with reservations

53 studies did not meet evidence screens
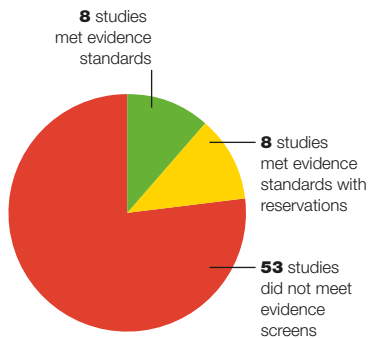
English language learners are students with a primary language other than English who have a limited range of speaking, reading, writing, and listening skills in English. English language learners also include students identified and determined by their school as having limited English proficiency and a language other than English spoken in the home.

This review focuses on programs to improve the English language literacy and/or academic achievement of elementary school students who are English language learners. For a program to be included, the majority of instruction has to be conducted in English (approximately 80%) but teachers might occasionally provide some native language support. The review focuses on programs for English language learners in grades K–6. It also includes studies in which students may no longer be considered to have limited English proficiency by their school but still have limited English language skills.

We looked at 73 studies of 32 programs that qualified for our review. Of these, 16 studies of 12 programs met our evidence standards—8 without reservations, and 8 with reservations.

Twenty programs reviewed had no studies meeting WWC evidence screens, three of which were eligible for inclusion in this topic review but did not have studies. Additionally, 20 studies could not be categorized by an intervention and are not cited in the report.[1] (The initial identification of eligible programs, practices, and studies ended in March 2006).

The review focused on three outcome domains: reading achievement, mathematics achievement, and English language development.

In looking at the three outcome domains for the 12 interventions, the following produced potentially positive effects on reading achievement and English language development:

- *Bilingual Cooperative Integrated Reading and Composition*
- *Instructional Conversations and Literature Logs*
- *Vocabulary Improvement Program*

Eight other programs and practices had potentially positive effects in one domain. One program had no discernible effects in two domains (see the WWC Intervention Rating Scheme).

1. Four additional studies use single-case designs and are still under review. The WWC is currently developing standards for the review of single-case studies.

Intervention ratings for English language learners

Each English language learning program that had at least one study meeting WWC standards with or without reservations received a rating of effectiveness in at least one outcome domain: reading achievement, mathematics achievement, and English language development. The rating aims to characterize the evidence in a given domain, taking into account the quality of the research design, the statistical significance of the findings, the size of the difference between participants in the intervention and comparison conditions, and the consistency in findings across studies.

The research evidence can be rated as positive, potentially positive, mixed, no discernible effects, potentially negative, or negative. Table 1 shows the effectiveness ratings for the 12 programs and practices in the three domains (empty cells indicate that no evidence was reported).

Table 1   Effectiveness ratings for 12 programs in three domains

Intervention name	Reading achievement		English language development		Mathematics achievement
	Rating of effectiveness	Extent of evidence	Rating of effectiveness	Extent of evidence	
Arthur (http://pbskids.org/arthur/index.html)			+	Small	
Bilingual Cooperative Integrated Reading and Composition (http://www.successforall.org)	+	Small	+	Small	
Enhanced Proactive Reading (http://www.texasreading.org/utcrla)	+	Small	O	Small	
Fast ForWord Language (http://www.scilearn.com/index.php)	O	Small	+	Small	
Instructional Conversations and Literature Logs (http://crede.berkeley.edu/research/crede/research/llaa/1.5pubs.html)	+	Small	+	Small	
Peer Tutoring and Response Groups (no website available)			+ +	Small	
Peer-Assisted Learning Strategies (http://kc.vanderbilt.edu/pals)	+	Small			
Read Naturally (http://www.readnaturally.com)	O	Small			
Read Well (http://store.cambiumlearning.com/ProgramPage.aspx?parentID=019005451&functionID=009000008&pID=Read%Well&site=sw)	+	Small			
Reading Mastery (http://www.sraonline.com)	+	Small			
Success for All (http://www.successforall.com)	+	Small			
Vocabulary Improvement Program (http://www.brookespublishing.com/store/books/lively-6342/index.htm)	+	Small	+	Small	

Note: The Extent of Evidence Categorization, developed to tell readers how much evidence was available to determine the intervention rating for each study, is in Appendix A1. Three programs had research findings in two domains, and eight programs had research findings in one domain. No programs had research findings in the mathematics achievement domain. WWC intervention reports describe each program and provide information on the students, the cost, and the scope of use. To view the intervention reports, please click on the program name or go to http://ies.ed.gov/ncee/wwc/. Following each program name is the developer's website address. The evaluated research addresses some but not all grade levels targeted by these interventions. Grade levels are related to student age and may affect outcomes. For a comparison of targeted grade levels and grade levels in the studies reviewed by the WWC, see Appendix A2.

Key

+ + Positive effects: strong evidence of a positive effect with no overriding contrary evidence

+ Potentially positive effects: evidence of a positive effect with no overriding contrary evidence

+ – Mixed effects: evidence of inconsistent effects

O No discernible effects: no affirmative evidence of effects

– Potentially negative effects: evidence of a negative effect with no overriding contrary evidence

– – Negative effects: strong evidence of a negative effect with no overriding contrary evidence
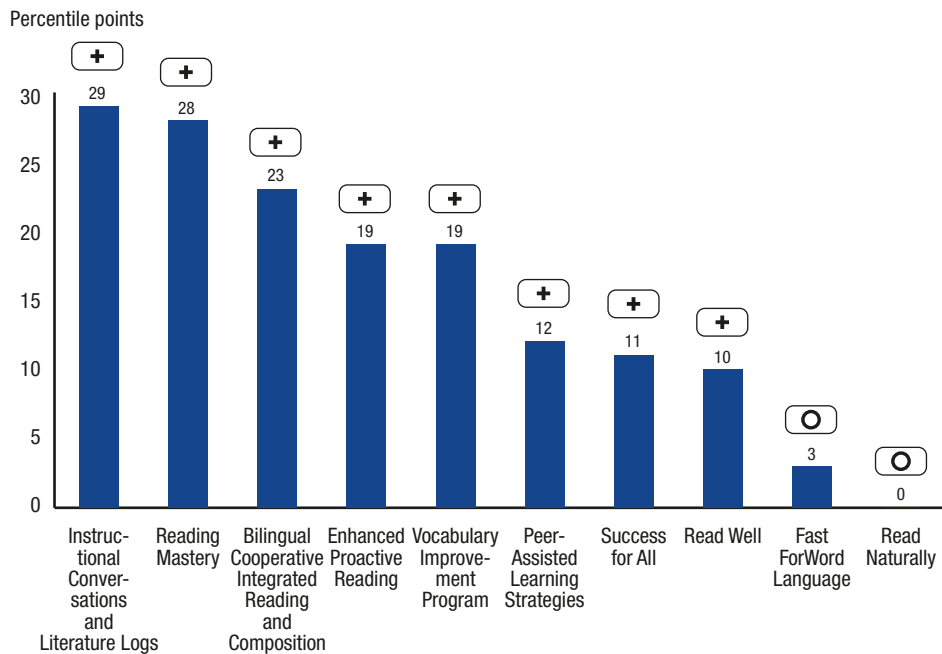
Average improvement indices for each domain

The WWC computes an improvement index for each individual finding. In addition, within each outcome domain, the WWC computes an average improvement index for each study as well as an average improvement index across studies (see Technical Details of WWC-Conducted Computations).

The improvement index represents the difference between the percentile rank of the average student in the intervention condition and the percentile rank of the average student in the comparison condition. The improvement index can take on values between −50 and +50, with positive numbers denoting results favorable to the intervention group. Unlike the rating of effectiveness, which is based on four factors, the improvement index is based only on the size of the difference between the intervention and the comparison conditions.

Reading achievement

The reading achievement domain consists of student literacy outcomes including phonemic awareness, phonics, reading fluency, vocabulary, and reading comprehension. The vocabulary measures included in the reading achievement domain consist only of measures that deal with the ability to define or use words that appear in text the student reads. We reviewed outcomes in this domain for 10 English language learning programs, and the average improvement index ranged from 0 to +29 percentile points (figure 1).

Mathematics achievement

The mathematics achievement domain includes measures of content knowledge (number sense, properties, and operations; measurement; geometry and spatial sense; data analysis, statistics, and probability; and algebra and functions) as well as an understanding of mathematical concepts, procedures, and problem solving. Mathematics instruction involves the use of language, and thus we are interested in effective methods for teaching mathematics to students with limited proficiency with the English language. In this topic review, no studies that met WWC evidence standards with or without reservations addressed mathematics achievement.

English language development

The English language development domain consists of oral or written proficiency outcomes including measures of listening comprehension, receptive vocabulary, grammar, syntax, and other linguistic features of the English language. The vocabulary associated with English language development relate to either expressive or receptive language in testing situations with no text to be read. We reviewed outcomes in this domain for eight English language learning programs and practices, and the average improvement index ranged from −1 to +31 (figure 2).
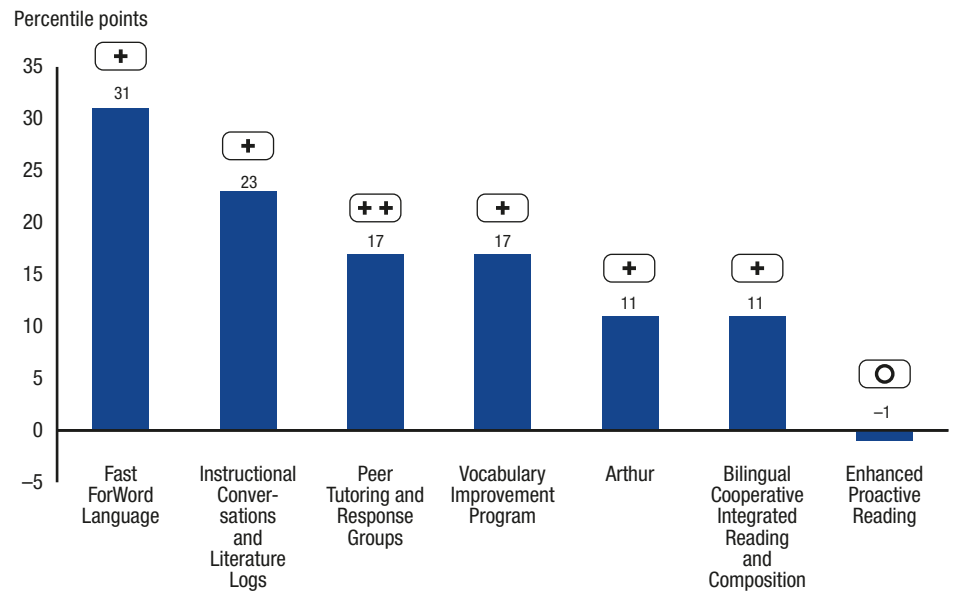
Figure 1   Reading achievement: average improvement

Percentile points

Figure 2   English language development: average improvement

Percentile points

Table 2 Programs reviewed with no studies meeting WWC evidence screens

Accelerated Reader *(http://www.renlearn.com/ar)*	**Metacognitive Teaching Approaches** *(no website available)*
Augmenting Thinking Through Language Acquisition Skills (ATTLAS) *(no website available)*	**NEARStar** *(http://www.nearstar.org)*
Cognitive Academic Language Learning Approach (CALLA) *(www.gwu.edu/~calla)*	**On Our Way to English** *(http://rigby.harcourtachieve.com/en-US/rigby.htm)*
Curriculum-Based Instruction *(no website available)*	**Pre-Teaching Vocabulary** *(no website available)*
Effective Use of Time *(no website available)*	**Project MASTER** *(no website available)*
ESL in the Content Areas *(no website available)*	**Reading Recovery** *(http://www.readingrecovery.org)*
Front Row Phonics *(no website available)*	**Sheltered Instruction Observation Protocol** *(http://www.cal.org/siop)*
Instructional Practices *(no website available)*	**Story Structure Strategies/Story Structure Utilization** *(no website available)*
Into English *(no website available)*	**Structured Immersion** *(no website available)*
Learning Centers *(no website available)*	**Supplemental Reading Instruction** *(no website available)*

Note: Following each program name is the developer's website address. This table includes programs and practices that were eligible for inclusion in this topic review.

For more information about the studies reviewed and the WWC methodology, please see the WWC English Language Learners Technical Appendices.