WWC Intervention Report U.S. DEPARTMENT OF EDUCATION

What Works Clearinghouse



Beginning Reading August 13, 2007

Success for All®

Program description¹

Success for All (SFA)® is a comprehensive school reform model that includes a reading, writing, and oral language development program for students in pre-kindergarten through grade eight. Its underlying premise is that all children can and should be reading at grade level by the end of third grade and then remain at grade level thereafter. Classroom reading instruction is delivered in daily 90-minute blocks to students grouped by reading ability. Immediate intervention with tutors who are certified teachers is given each day to those students who are having difficulty reading at the same level as their classmates. A full-time SFA® facilitator employed by the school supports classroom instruction by training teachers, overseeing student assessments, and assisting with decisions about group placement and tutoring. Family Support Teams work on parent involvement, absenteeism, and student behavior.

This intervention report focuses on the reading instructional component of *SFA*®, which is often implemented in the context of the highly structured *SFA*® whole school reform program. Although the whole school reform program has key components that are implemented in each school, school sites may vary considerably in the number of personnel used to implement *SFA*®, particularly tutors and family support staff. The reading curricula are essentially the same at all schools, with each school receiving the same training, coaching support, and materials. Ratings presented in this report are not disaggregated by the variations in implementation of whole school reforms. Reading outcomes from all studies included in this report are examined together and formed the basis for a single effectiveness rating for each outcome domain.

Research

One study met the WWC evidence standards and six studies met WWC evidence standards with reservations. Altogether, the studies included nearly 6,000 students attending more than 90 elementary schools across the United States. The seven studies focused on students in grades K–3 who received the *SFA*®

intervention for varying amounts of time.² The WWC considers the extent of evidence for *SFA*[®] to be moderate to large for alphabetics, comprehension, and general reading achievement. No studies that met WWC evidence standards with or without reservations addressed fluency.

- 1. The descriptive information for this program was obtained from the publicly available program web site (www.successforall.net, downloaded February 2007). The WWC requests developers to review the program description sections for accuracy from their perspective. Further verification of the accuracy of the descriptive information for this program is beyond the scope of this review.
- 2. The evidence presented in this report is based on available research. Findings and conclusions may change as new research becomes available.

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Effectiveness

Success for All® was found to have potentially positive effects on alphabetics and general reading achievement and mixed effects on comprehension.

	Alphabetics	Fluency	Comprehension	General reading achievement
Rating of effectiveness	Potentially positive effects	na	Mixed effects	Potentially positive effects
Improvement index ³	Average: +13 percentile points Range: 0 to +32 percentile points	na	Average: +8 percentile points Range: 0 to +17 percentile points	Average: +10 percentile points Range: +2 to +22 percentile points

na = not applicable

Additional program information¹

Developer and contact

Developed by Robert Slavin and Nancy Madden in conjunction with the Johns Hopkins University, *Success for All®* is distributed by Success for All Foundation, Inc., 200 W. Towsontown Boulevard, Baltimore, Maryland 21204-5200. Email: sfainfo@successforall.org Web: www.successforall.net Telephone: (800) 548-4998 ext. 2372.

Scope of Use

SFA[®] is used by schools in 48 states, Guam, and the Virgin Islands. According to the Success for All Foundation, more than 1,300 schools in over 500 districts have used the *SFA*[®] whole school reform program. Israel, Canada, Mexico, and Australia have implemented adapted versions of *SFA*[®].

Teaching

During the regular daily 90-minute reading period, students are grouped into reading classes of 15–20 students who are all performing at the same reading level (regardless of age- or grade-level). Regrouping allows teachers to teach the whole class without having to break the class into multiple smaller reading groups.

Reading teachers at every grade level begin the period by reading children's literature to students. Teachers discuss the

story with students to enhance the students' understanding of the story and the story structure and to increase their listening and speaking vocabulary. In kindergarten and first grade, teachers emphasize the development of language skills and use phonetically regular storybooks and instruction to focus on phonemic awareness, auditory discrimination, and sound blending. In the second through fifth grade, teachers use school- or district-provided reading materials, either basal or trade books, in a structured set of interactive activities in which students read, discuss, and write about the books. At this stage, teachers emphasize cooperative learning activities built around partner reading. Students work on identifying characters, settings, and problem solutions in narratives. Students receive direct instruction in reading comprehension skills.

Teachers in their first year teaching *SFA®* receive a three-day summer training and 12 additional on-site support days during the school year. Additional in-service presentations covering topics such as classroom management, instructional pace, and cooperative learning are made by school facilitators and other program staff throughout the year. Facilitators organize information sessions to allow teachers to share problems and solutions, suggest changes, and discuss individual children. Twice a year, trainers provided by the developer visit and observe teachers.

3. These numbers show the average and range of improvement indices for all findings across the studies.

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Additional program information *(continued)*

After the first year, training is reinforced by regular in-services, an annual *SFA*[®] conference, and on-site implementation support visits for school leaders and teachers. The staff development model used in whole school *SFA*[®] reform emphasizes relatively brief initial training with extensive classroom follow-up, coaching, and group discussion.

Principals and facilitators receive five days of initial training in leadership, data collection and progress monitoring, classroom

instructional practices, school climate, and intervention using *SFA*[®] strategies.

Cost

The cost of the *SFA*® whole school reform program is approximately \$80,000 in the first year, about \$50,000 in the second year, and \$35,000 in the third. Teacher training and ongoing support is required and is included in the cost of the program.

Research

Seventy-four studies reviewed by the WWC investigated the effects of *SFA*[®]. One study (Borman, Slavin, Cheung, Chamberlain, Madden, & Chambers, 2006) was a randomized controlled trial that met WWC evidence standards. Six other studies (Dianda & Flaherty, 1995; Madden, Slavin, Karweit, Dolan, & Wasik, 1993; Ross, Alberg, & McNelis, 1997; Ross & Casey, 1998; Ross, McNelis, Lewis, & Loomis, 1998; and Smith, Ross, Faulks, Casey, Shapiro, & Johnson, 1993) were quasi-experimental designs that met WWC evidence standards with reservations. The remaining studies did not meet WWC evidence screens.

Some studies measured the impact of *SFA*® after a cohort of students was exposed to *SFA*® for one, two, and three years. To determine ratings, the WWC used results from the final year reported in a study for the overall domain rating, prioritizing the outcomes that reflected students' exposure to the intervention for the longest period of time available.⁴ The studies in this report reflect results after: (1) three years of exposure to *SFA*® (2 studies); (2) two years of exposure to *SFA*® (2 studies); and (3) one year of exposure to *SFA*® (3 studies).

Met evidence standards

 Borman, Slavin, Cheung, Chamberlain, Madden, & Chambers (2006) was a cluster randomized controlled trial that examined the effects of SFA® on students in grades K-2 across 14 states. The study randomly assigned 41 schools to *SFA*® and the comparison conditions and presented findings on students who had completed one, two, or three years of the program compared with students who took part in their schools' typical reading program. The WWC based effectiveness ratings on findings from the third-year longitudinal sample of 1,425 students who began the study in kindergarten in 18 intervention and 17 comparison schools.

Met evidence standards with reservations

- Dianda and Flaherty (1995) studied the impact of SFA® on three different cohorts of students who started kindergarten in 1992, 1993, or 1994. Students were from six elementary schools in California. Students were grouped into four language categories; the WWC focuses only on the English-speaking group of 539 students for this review. SFA® students were compared with students who did not use the SFA® program. The WWC based effectiveness ratings on findings for the three cohorts who were exposed to SFA® for two, three, or four years.
- Madden, Slavin, Karweit, Dolan, & Wasik (1993) evaluated the effects of SFA® in Baltimore City elementary schools. The authors evaluated three different levels of implementation of the SFA® program: full implementation, curriculum only,
- 4. SFA® is designed to teach children to read at grade level by third grade and the third year of program implementation is regarded as the full "dose" of Success for All (Borman et al., 2006).
- 5. The WWC Beginning Reading topic focuses only on students learning to read in English (see Beginning Reading Protocol).

Research (continued)

- and focus on dropout prevention.⁶ The WWC focused on the full implementation portion of the study. Two schools that implemented the *SFA*[®] were compared with two matched comparison schools that received a traditional reading basal program. The WWC based effectiveness ratings on the findings for students at the end of three years of implementation for alphabetics and general reading achievement domains.
- Ross, Alberg, and McNelis (1997) included first-grade students from 19 elementary schools implementing alternative school-wide programs in the Northwest. The 19 schools were formed into four clusters of similar schools. For this review, the WWC reported results from students in three SFA® schools who were compared with the students from three schools that implemented the Accelerated Schools program. This subsample consisted of "cluster 2A" schools, which were neither the most disadvantaged, nor the most affluent, schools in the sample. This WWC review focused on the findings for 425 students at the end of the second grade, who had received one year of the SFA® program.
- Ross and Casey (1998) examined the effects of SFA® in three schools in Ft. Wayne, Indiana, by comparing them with five schools that implemented "locally developed programs." The WWC focused on students who started the program in kindergarten at two SFA® schools. The WWC based effectiveness ratings on the findings for 288 students at the end of first grade who received two years of SFA®.

- Ross, McNelis, Lewis, & Loomis (1998) included 97 first-grade students from four elementary schools located in Little Rock, Arkansas. Two schools that implemented the SFA® were compared with two matched comparison schools that did not receive the intervention. The WWC based effectiveness ratings on findings at the end of the second grade after students received one year of SFA® implementation.
- Smith, Ross, Faulks, Casey, Shapiro, & Johnson (1993) evaluated SFA® in two elementary schools in Ft. Wayne, Indiana, by comparing them with similar students in two matched comparison schools that did not receive SFA®. The WWC based effectiveness ratings on findings for 286 students spread across kindergarten and first grade who had received one year of SFA® implementation.

Extent of evidence

The WWC categorizes the extent of evidence in each domain as small or moderate to large (see the What Works Clearinghouse Extent of Evidence Categorization Scheme). The extent of evidence takes into account the number of studies and the total sample size across the studies that met WWC evidence standards with or without reservations.⁷

The WWC considers the extent of evidence for *SFA*[®] to be moderate to large for alphabetics, comprehension, and general reading achievement. No studies that met WWC evidence standards with or without reservations addressed fluency.

- 6. The curriculum only intervention is a particular version of the *SFA*® program that only uses the beginning reading curriculum rather than the whole school reform approach (Slavin et al., 1990). The curriculum only portion of the study included only one school in comparison condition and did not meet WWC evidence screens. The dropout prevention portion met evidence standards with reservations but was not considered in the intervention rating because it went beyond the standard delivery of the program. However, results are reported in Appendices A4.7–A4.9.
- 7. The Extent of Evidence Categorization was developed to tell readers how much evidence was used to determine the intervention rating, focusing on the number and size of studies. Additional factors associated with a related concept, external validity, such as the students' demographics and the types of settings in which studies took place, are not taken into account for the categorization.

Effectiveness

Findings

The WWC beginning reading review addresses student outcomes in four domains: alphabetics, fluency, comprehension, and general reading achievement.8 Studies included in this report cover three domains: alphabetics, comprehension, and general reading achievement. Alphabetics includes five constructs: phonemic awareness, phonological awareness, print awareness, letter knowledge, and phonics. Comprehension includes two constructs: reading comprehension and vocabulary development. General reading achievement includes outcome measures that do not explicitly differentiate among different reading domains (e.g., a summary standardized test score). The findings below present the authors' estimates and WWCcalculated estimates of the size and the statistical significance of the effects on students.9 The results are presented by domain for each of the SFA® studies that met the WWC evidence standards with or without reservations.

Alphabetics

In the alphabetics domain, seven studies addressed phonics outcomes and one of these studies also measured students' letter knowledge skills.

Three years of program implementation:

- Borman et al (2006) examined scores on the Woodcock Reading Mastery Test (WRMT) and reported statistically significant positive effects for two phonics subtests: Word Identification and Word Attack. The WWC analysis confirmed the statistical significance of these effects.
- For each SFA® school,¹⁰ Madden et al. (1993) found statistically significant positive effects on the phonics measure (the Woodcock Language Proficiency Battery (WLPB) Word Attack

subtest) for preschoolers and first-graders and statistically significant positive effects on the WLPB Letter-Word Identification subtest for kindergarteners. The WWC found that none of the combined effects across schools were statistically significant, but the average effect size across these outcomes was substantively important according to WWC criteria (that is, an effect size of at least 0.25).

Two years of program implementation:

- Dianda and Flaherty (1995) reported effect sizes, but did not report on the statistical significance of the effect of SFA® on two phonics measures: the WLPB Letter-Word Identification subtest and the Word Attack subtest. According to WWC calculations, there were no statistically significant effects of SFA®, but the average effect size across the two measures was positive and large enough to be considered substantively important.
- Ross and Casey (1998) reported no statistically significant
 effect of SFA® for one phonics measure (WRMT Word Identification subtest) but found a statistically significant positive
 effect for the other phonics measure (WRMT Word Attack
 subtest). In WWC computations, neither of the effects was
 statistically significant, and the average effect was not large
 enough to be considered substantively important.

One year of program implementation:

- Ross, Alberg, and McNelis (1997) did not find a statistically significant effect of SFA® for one phonics measure (the WRMT Word Identification subtest), but did find a statistically significant positive effect for the other phonics measure (WRMT Word Attack subtest). The WWC analyses showed that neither of the effects was statistically significant. In addition, the average effect size across the two outcomes was neither
- 8. For definitions of the domains, see the Beginning Reading Protocol.
- 9. The level of statistical significance was reported by the study authors or, where necessary, calculated by the WWC to correct for clustering within classrooms or schools and for multiple comparisons. For an explanation, see the WWC Tutorial on Mismatch. See <u>Technical Details of WWC-Conducted Computations</u> for the formulas the WWC used to calculate the statistical significance. In the case of *Success for All*®, a correction for multiple comparisons was needed for Borman et al. (2006). In the case of the six other studies, corrections for clustering and multiple comparisons were needed.
- 10. Two SFA® elementary schools were included in the analyses of third-year outcomes.

Effectiveness (continued)

- statistically significant nor large enough to be considered substantively important.
- Ross et al. (1998) study found no statistically significant effects of SFA® on the two phonics outcomes: WRMT Word Identification and Word Attack subtests. The WWC analyses also found that no effects were statistically significant, but the average effect size across outcomes was positive and large enough to be considered substantively important.
- Smith et al. (1993) reported no statistically significant effect of SFA® on the letter knowledge construct (WRMT Letter Identification subtest), but found statistically significant positive effects for the two phonics outcomes (WRMT Word Identification and Word Attack subtests) for first-grade students. For kindergarten students, the authors found statistically significant positive effects for the WRMT Letter Identification and the Word Identification subtests. The WWC calculations found that although none of these effects were statistically significant, the average effect size across outcomes was positive and large enough to be substantively important.

Overall, in the alphabetics domain, one study with a strong design showed statistically significant positive effects. Four studies showed substantively important positive effects and two studies showed indeterminate effects.¹¹

Comprehension

In the comprehension domain, six studies addressed reading comprehension outcomes, and one of these studies also measured students' vocabulary development skills.

Three years of program implementation:

 Borman et al. (2006) reported and the WWC confirmed a statistically significant positive effect of SFA® on the WRMT Passage Comprehension subtest. Two years of program implementation:

- Dianda and Flaherty (1995) did not report on the statistical significance of the effect of SFA® on the WLPB Passage Comprehension subtest. The WWC found no statistically significant effect, but the positive effect was large enough to be considered substantively important according to WWC criteria.
- Ross and Casey (1998) reported no statistically significant effect of SFA® on the WRMT Passage Comprehension subtest. In addition, the WWC found that the effect size was positive, but not substantively important.

One year of program implementation:

- Ross, Alberg, and McNelis (1997) reported no statistically significant effect on the WRMT Passage Comprehension subtest and the WWC found that the effect size was positive, but not substantively important.
- Ross et al. (1998) reported and the WWC confirmed a positive, but neither statistically significant nor substantively important effect of SFA® on the WRMT Passage Comprehension subtest.
- Smith et al. (1993) reported no statistically significant effect
 of SFA® on the vocabulary development measure (Peabody
 Picture Vocabulary Test) for kindergarteners. For first-graders,
 the study authors found a statistically significant positive
 effect on the WRMT Passage Comprehension subtest. The
 WWC analysis found that none of the effects were statistically
 significant; and the average effect size across all outcomes
 was not large enough to be considered substantively
 important.

For the comprehension domain, one study reported a statistically significant positive effect and had a strong design. One study showed substantively important positive effects, and four studies showed indeterminate effects.

^{11.} Indeterminate effects are defined as effects that are not statistically significant and with effect sizes smaller than 0.25.

Effectiveness (continued)

General reading achievement

Six studies examined outcomes in the general reading achievement domain.

Three years of program implementation:

- Dianda and Flaherty (1995) examined the effects of SFA® on the combined measure of WLPB and Durrell Oral Reading subtest for three cohorts of students after two to four years of program implementation. The authors did not report on the statistical significance of the findings. The WWC effect size computations found that although none of the effects was statistically significant, the mean effect size across all outcomes was positive and large enough to be considered substantively important.
- For each SFA® school,¹⁰ Madden et al. (1993) found statistically significant positive effects of SFA® on the Durrell Oral Reading subtest for kindergarten and first-grade students. The WWC computations found that none of the positive effects combined across schools were statistically significant; but the mean effect across grade levels was large enough to be considered substantively important.

Two years of program implementation:

Ross and Casey (1998) reported and the WWC confirmed a
positive but neither statistically significant nor substantively
important effect of SFA® on the Durrell Oral Reading subtest.

One year of program implementation:

- Ross, Alberg, and McNelis (1997) reported and the WWC confirmed a positive but neither statistically significant nor substantively important effect of SFA® on the Durrell Oral Reading subtest.
- Smith et al. (1993) found a statistically significant positive effect of SFA® on the Durrell Oral Reading subtest. The WWC computations found that the effect was not statistically significant, but large enough to be considered substantively important.
- The Ross et al. (1998) reported and the WWC confirmed a positive, but neither statistically significant nor substantively important effect on the Durrell Oral Reading subtest.

In the general reading domain, three studies reported substantively important positive effects and three studies showed indeterminate effects. No study had a strong design.

Rating of effectiveness

The WWC rates the effects of an intervention in a given outcome domain as positive, potentially positive, mixed, no discernible effects, potentially negative, or negative. The rating of effectiveness takes into account four factors: the quality of the research design, the statistical significance of the findings, the size of the difference between participants in the intervention and the comparison conditions, and the consistency in findings across studies (see the www.wwc.intervention.neg. Rating Scheme).

The WWC found Success for AII® to have potentially positive effects on alphabetics and general reading achievement domains and mixed effects on comprehension

Improvement index

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 and 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 versus the percentile rank of the average student in the comparison condition. Unlike the rating of effectiveness, the improvement index is based entirely on the size of the effect, regardless of the statistical significance of the

effect, the study design, or the analyses. The improvement index can take on values between –50 and +50, with positive numbers denoting results favorable to the intervention group.

The average improvement index for alphabetics is +13 percentile points across the seven studies, with a range of 0 to +32 percentile points across findings. The average improvement index for comprehension is +8 percentile points across the six studies, with a range of 0 to +17 percentile points across findings. The average improvement index for general reading is +10 percentile points across the six studies, with a range of +2 to +22 percentile points across findings.

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Effectiveness (continued)

Summary

The WWC reviewed 74 studies on *Success for All*[®]. One of these studies met WWC evidence standards; six studies met WWC evidence standards with reservations; the remaining studies did not meet WWC evidence screens. Based on the seven studies,

the WWC found potentially positive effects in the alphabetics and general reading achievement domains, and mixed effects in the comprehension domain. The evidence presented in this report is based on available research and may change as new studies emerge.

References

Met WWC evidence standards

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Met evidence standards with reservations

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- 12. The outcome measures are not relevant to this review: the parameters for this WWC review specified student outcome measures but this study did not focus on students.
- 13. Does not use a strong causal design: this study was a quasi-experimental design but did not use achievement pretests to establish that the comparison group was equivalent to the intervention group at baseline.
- 14. The sample is not appropriate to this review: the parameters for this WWC review specified that students should be in grades kindergarten through third grade during the time of the intervention; this study did not focus on the targeted grades.
- 15. The study, which used a quasi-experimental design, reported an extreme overall attrition rate.
- 16. Does not use a strong causal design: for the portion of the sample of interest to this WWC review, there was only one intervention and/or one comparison unit. so the analysis could not separate the effects of the intervention from other factors.
- 17. Does not use a strong causal design: this study did not use a comparison group.
- 18. The sample is not appropriate to this review: the parameters for this WWC review specified that students should be in grades kindergarten through third grade; this study did not disaggregate students in the eligible range from those outside the range.
- 19. The sample is not appropriate to this review: this study did not focus on students learning to read in English, one of the parameters for this WWC review.
- 20. The sample is not appropriate to this review: the parameters for this WWC review specified student outcome measures, but this study did not focus on students.
- 21. Does not use a strong causal design: this study, which used a quasi-experimental design, did not use equating measures to ensure that the comparison group was equivalent to the intervention group.
- 22. Does not use a strong causal design: for the portion of the sample of interest for this WWC review, there was a confound, with the intervention being modified or combined with other interventions, making it difficult to attribute study outcomes to the intervention.
- 23. Does not use a strong causal design: this study, which used a quasi-experimental design, experienced attrition which led to possible bias in reporting.
- 24. Does not use a strong causal design: for the portion of the sample of interest to this WWC review, there was only one intervention and one comparison unit, so the analysis could not separate the effects of the intervention from other factors.
- 25. Does not use a strong causal design: this study was a quasi-experimental design but did not establish that the comparison group was equivalent to the intervention group at baseline.
- 26. Confound: The effects of the intervention could not be separated from other factors; the impact of the agent of the intervention was confounded with the impact of the intervention.

WWC Intervention Report Success for All® August 13, 2007

Appendix

Appendix A1.1 Study characteristics: Borman, Slavin, Cheung, Chamberlain, Madden, & Chambers, 2006 (randomized controlled trial)

Characteristic	Description				
Study citation	Borman, G. D., Slavin, R. E., Cheung, A., Chamberlain, A., Madden, N., & Chambers, B. (2006). Final reading outcomes of the national randomized field trial of Success for All. Retrieved from Success for All Web site: http://www.successforall.net/_images/pdfs/Third_Year_Results_06.doc				
Participants	The study piloted the <i>SFA</i> ® program in fall 2001, when three schools were randomly assigned to the <i>SFA</i> ® and three schools to the comparison condition. In fall 2002, 35 new schools were recruited with 18 schools randomly assigned to implement <i>SFA</i> ® in grades K–2 and 17 schools randomly assigned to serve as comparisons.¹ The study presented findings after the intervention students completed one, two, and three years of the program. For the effectiveness ratings, the WWC focused on findings from the longitudinal sample, that is, schools and students who completed three years of the program.² After three years, 18 <i>SFA</i> ® schools with 707 students and 17 comparison schools with 718 students remained in the longitudinal sample.				
Setting	The analysis sample included 35 elementary schools across 14 states located in rural and small towns in the South and urban areas of the Midwest.				
Intervention	Intervention students received the SFA® school reform program including the SFA® reading curriculum, tutoring for students' quarterly assessments, family support teams for students' parents, a facilitator who worked with school personnel, and training for all intervention teachers. Intervention schools implemented SFA® in grades K–2 and used their previously planned curriculum in grades 3–5. Some schools took a year to fully implement the program.				
Comparison	Comparison schools continued using their regular, previously planned curriculum for grades K–2 (though <i>SFA</i> ® was implemented in grades 3–5). Authors conducted observations at all schools and indicated that there was no evidence that when <i>SFA</i> ® was implemented in grades 3–5, students in grades K–2 were also exposed to <i>SFA</i> ®. All sample students were pretested with the Peabody Picture Vocabulary Test (PPVT) prior to <i>SFA</i> ® implementation, and school-wide PPVT scores show equivalence between the program and comparison schools. Researchers also use information from the Common Core of Data (a database maintained by the National Center for Education Statistics) at several points over the course of the study to demonstrate the equivalence between the program and comparison schools on race/ethnicity, gender, English as a second language, special education, and free and reduced-price lunch. All equivalency tests were assessed at the school level and no statistically significant differences were found.				
Primary outcomes and measurement	Three subtests of the Woodcock Reading Mastery Test were administered during the period reflected in the intervention rating: Word Identification, Word Attack, and Passage Comprehension. ³ (See Appendices A2.1–2.3 for more detailed descriptions of outcome measures.)				
Teacher training	SFA® teachers received three days of training during the summer and approximately eight days of on-site follow-up during the first implementation year. Success for All Foundation trainers visited classrooms, met with groups of teachers, looked at data on children's progress, and provided feedback to school staff on implementation quality and outcomes.				

^{1.} The 17 additional comparison schools implemented SFA® in grades 3–5 but students in grades K–2—the focus of this study and the WWC review—did not receive the intervention.

^{2.} The study provided analysis for two samples, the "longitudinal sample" which included students who participated in the program for all three years, and the "in-mover sample" which included the longitudinal sample plus students who transferred into the school. The WWC analysis focuses on the longitudinal sample. The WWC prioritized outcomes that reflected students' exposure to the intervention for the longest period of time available. Findings reflecting students' outcomes after shorter periods of implementation can be found in Appendices A4.1–A4.9.

^{3.} One additional subtest of the Woodcock Reading Mastery Test (Letter Identification) was administered during an earlier time period and is presented as an additional finding in Appendix A4.1

Appendix A1.2 Study characteristics: Dianda & Flaherty, 1995 (quasi-experimental design)

Characteristic	Description				
Study citation	Dianda, M., & Flaherty, J. (1995, April). Effects of Success for All on the reading achievement of first graders in California bilingual programs. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA.				
Participants	This study involved seven elementary schools in California where the majority of students were English language learners. Six schools remained by the third year of program implementation. Students were grouped into four language categories and received instruction in English, Spanish, or "Sheltered English." Only the English-speaking subsample was reviewed. The report includes three cohorts of students who began participating in the study as kindergarteners in 1992 (99 intervention and 120 comparison students), 1993 (105 intervention and 62 comparison students), or 1994 (94 intervention and 59 comparison students), for a total of 539 participants. For the effectiveness rating, the WWC used data that reflected students' exposure to the intervention for the longest period of time, which varied for the different cohorts and domains. Exact attrition rates are not known for this study, however the post-attrition intervention and comparison samples were equivalent for the English speaking subgroup. In the overall sample, the percent of students eligible for free lunch varied from 70 to 98 in intervention schools, and from 47 to 80 in comparison schools. The percentages of minority students were between 50 and 70 for each study condition.				
Setting	The analysis sample included seven elementary schools in California.				
Intervention	Intervention students received the typical SFA® curriculum including the SFA® reading curriculum, tutoring for students, quarterly assessments, family support teams for students' parents, a facilitator who worked with school personnel, and training for all intervention teachers.				
Comparison	Comparison schools continued using their regular, previously planned curriculum. Each comparison school was matched with a SFA® school in the same district with students that had similar demographics and pretest scores on the Peabody Picture Vocabulary Test measure.				
Primary outcomes and measurement	Three subtests of the Woodcock Language Proficiency Battery were administered: Letter-Word Identification, Word Attack, and Passage Comprehension. The authors presented findings from each Woodcock subtest separately and also pooled findings from the Woodcock Letter-Word Identification subtests (see Appendices A2.1–2.3 for more detailed descriptions of outcome measures).				
Teacher training	SFA® teachers received three days of training during the summer and approximately eight days of on-site follow-up during the first implementation year. Success for All Foundation trainers visited classrooms, met with groups of teachers, looked at data on children's progress, and provided feedback to school staff on implementation quality and outcomes. Specially trained certified teachers or qualified aides work one-to-one with the students.				

^{1.} English language learners participate in SFA® in English alongside their English-dominant classmates during a common period in the morning. During the rest of the day, they receive sheltered-content instruction or ESL instruction, depending on their level of English proficiency.

^{2.} The WWC Beginning Reading topic focuses only on students learning to read in English (see Beginning Reading Protocol).

^{3.} Findings include outcomes after two years of exposure for the alphabetics and comprehension domains; and after two (1994 cohort), three (1993 cohort), and four (1992 cohort) years of exposure for the general reading domain. Findings reflecting students' outcomes after shorter periods of implementation can be found in Appendix A4.3.

Appendix A1.3 Study characteristics: Madden, N. A., Slavin, R. E., Karweit, N., Dolan, L., & Wasik, B. A., 1993 (quasi-experimental design)

Characteristic	Description
Study citation	Madden, N. A., Slavin, R. E., Karweit, N., Dolan, L., & Wasik, B. A. (1993). Success for All: Longitudinal effects of a restructuring program for inner-city elementary schools. American Educational Research Journal, 30(1), 123–148.
Participants	The study investigated the effects of three versions of the <i>SFA</i> ® program: full implementation, curriculum only,¹ and dropout prevention.² The WWC focused on the full implementation portion of the study, which included two intervention schools and two matched comparison schools. Within each comparison school, one third of the students were randomly selected for testing purposes. The study focused on cohorts of students who started <i>SFA</i> ® in pre-kindergarten, kindergarten, and first grade and received the intervention for multiple years. To determine the effectiveness ratings, the WWC focused on the latest term results available. The third-year analytic sample included 268 students within two <i>SFA</i> ® schools and 268 students within two comparison schools spread across three grade levels.³ African-American students constituted 97–99% of students in two intervention schools, with 83–97% of students qualified for free lunch. In comparison (Chapter 1) schools, at least 75% of students qualified for free lunch.
Setting	The analysis sample included four elementary schools in Baltimore, Maryland.
Intervention	Intervention students received the typical SFA® program including the SFA® reading curriculum, tutoring for students in grades 1–3, quarterly assessments, family support teams for students' parents, a facilitator who worked with school personnel, and training for all intervention teachers.
Comparison	The comparison condition included schools that implemented a traditional reading program built around Macmillan Connections basal series. Each comparison school was matched with an intervention school based on the percentage of students getting free or reduced-price lunch and historical achievement level. Students were then individually matched on a standardized test given by the school district. Pretest scores on WRMT Letter-Word Identification, Word Attack, and Durrell Oral Reading subtests served as covariates in analyses.
Primary outcomes and measurement	Two subtests of the Woodcock Language Proficiency Battery were administered: Letter-Word Identification and Word Attack. Additional measures included Durrell Analysis of Reading Difficulty Silent Reading and Oral Reading subtests and the California Achievement Test (CAT) Total Reading (see Appendices A2.1–2.3 for more detailed descriptions of outcome measures).
Teacher training	The teachers and tutors were regular certified teachers. They received detailed teacher's manuals supplemented by two to three days of in-service at the beginning of the school year. For teachers of grades 1–3 and for reading tutors, these training sessions focused on the implementation of the reading program. Preschool and kindergarten teachers and aids were trained in the use of the thematic units, and other aspects of the preschool and kindergarten models. School facilitators also organized many information sessions to allow teachers to share problems and solutions, suggest changes, and discuss individual children.

^{1.} The curriculum-only portion (a version of the SFA® program that only uses the beginning reading curriculum rather than the whole school reform) of the study included only one school in the comparison condition making it impossible to separate the effect of the school from the effect of the regular reading curriculum.

3. Additional findings reflecting students' outcomes after shorter periods of implementation can be found in Appendices A4.1–A4.9, along with findings for a subsample of low-achieving students.

^{2.} The dropout prevention version was designed to operate within schools that do not have the funding to implement the full *SFA*® program. The dropout prevention program had a reduced number of tutors and family support staff. Chapter 1 monies supported the program. The dropout prevention portion is not included in the intervention rating because it differs from the standard implementation of the program. However, findings for the dropout prevention portion of *SFA*® can be found in Appendices A4.7–4.9

Appendix A1.4 Study characteristics: Ross, Alberg, & McNelis, 1997 (quasi-experimental design)

Characteristic	Description				
Study citation	Ross, S. M., Alberg, M., & McNelis, M. (1997). Evaluation of elementary school school-wide programs: Clover Park School District. Year 1: 1996–97. Memphis, TN: The University of Memphis, Center for Research in Education Policy.				
Participants	The study compared whole-school improvement programs, <i>Success for All</i> ®, Accelerated Schools, and locally-developed programs, in 19 schools. Schools were divided into four groups based on the similarity of several school characteristics, including enrollment, percentage of minority students, percentage of students eligible for free/reduced lunch, and initial academic performance. WWC focused on only one group, "cluster 2A", the third highest with respect to socio-economic status, which included three <i>SFA</i> ® schools and three Accelerated Schools, with a total number of 252 first-grade students (148 students that attended <i>SFA</i> ® schools; 104 students that attended Accelerated Schools).¹ The study included data that reflected students' outcomes after one year of program implementation. In the overall sample, the percent of minority students in three intervention schools was between 47 and 63. In three the comparison schools, the range was between 42 and 54%. The percent of students eligible for free/reduced lunch varied from 63 to 66 in intervention schools, and from 66 to 71 in comparison schools.				
Setting	The analysis sample included six elementary schools in Clover Park, Washington.				
Intervention	Intervention students received the typical SFA® program including the SFA® reading curriculum, tutoring for students in grades 1–3, quarterly assessments, family support teams for students' parents, a facilitator who worked with school personnel, and training for all intervention teachers.				
Comparison	Accelerated Schools is a comprehensive school reform program that is designed to close the achievement gap between at-risk and not at-risk children. The program redesigns and integrates curricular, instructional, and organizational practices so that they provide enrichment for at-risk students.				
Primary outcomes and measurement	Three subtests of the Woodcock Reading Mastery Test were administered: Word Identification, Word Attack, and Passage Comprehension. The Durrell Analysis of Reading Difficulty Oral Reading subtest was also used (see Appendices A2.1–2.3 for more detailed descriptions of outcome measures).				
Teacher training	No information on training for the specific teachers in this study was provided.				

^{1.} An additional group included one SFA® school and three comparison schools (one school used Accelerated Schools design, and the other two locally developed programs), but this comparison did not meet WWC evidence screens because the effect of SFA® cannot be separated from the effect of that school.

Appendix A1.5 Study characteristics: Ross & Casey, 1998 (quasi-experimental design)

Characteristic	Description				
Study citation	Ross, S. M., & Casey, J. (1998). Longitudinal study of student literacy achievement in different Title I school-wide programs in Fort Wayne Community Schools year 2: First grade results. Memphis, TN: The University of Memphis, Center for Research in Education Policy.				
Participants	This study examines the effects of <i>SFA</i> ® in two Title I schools by comparing them with five other Title I schools that were implementing locally developed school-wide programs.¹ The study did not report on the initial sample size, but 288 students in kindergarten (83 students in the <i>SFA</i> ® schools; 205 students at comparison schools) were included in the final analysis sample and the post-attrition intervention and comparison samples were equivalent on the achievement pretest measure (PPVT). The study included data that reflected students' outcomes after two years of program implementation.² School populations ranged between 31 and 50% minority enrollment; between 62 and 81% of students received free or reduced-price lunch.				
Setting	The analysis sample included seven Title I elementary schools in Fort Wayne, Indiana.				
Intervention	Intervention students received the typical SFA® curriculum including the Reading Roots reading curriculum in grade 1 and the Reading Wings reading curriculum in grade 2; one-to-one tutoring for the lowest-achieving students by certified teacher tutors, quarterly assessments, family support teams for students' parents, a facilitator who worked with school personnel, and training for all intervention teachers.				
Comparison	The five comparison schools implemented locally developed school-wide programs. The schools were comparable with <i>SFA</i> ® schools on pretest PPVT measures, socio-economic status, and ethnicity. Four out of the five local school programs incorporate components of other branded programs, including Reading Recovery, Accelerated Reader, Four-Block, and STAR. These curricula place considerable emphasis on reading, use of basal readers, and multi-faceted reading activities.				
Primary outcomes and measurement	Three subtests of the Woodcock Reading Mastery Test were administered: Word Identification, Word Attack, and Passage Comprehension. The study presented a combined measure of Word Identification and Word Attack. The Durrell Analysis of Reading Difficulty Oral Reading subtest was also used (see Appendices A2.1–2.3 for more detailed descriptions of outcome measures).				
Teacher training	No information on training for the specific teachers was provided in this study.				

^{1.} The article reported on an additional intervention school that supplemented SFA® with another branded intervention (Reading Recovery), but results from this portion of the study do not meet WWC evidence standards because the effect of SFA® cannot be separated from the effect of Reading Recovery.

^{2.} Additional findings for a subsample of low-achieving students (i.e., lowest 25% with respect to reading achievement) are reported in Appendices A4.1–A4.9.

Study characteristics: Ross, McNelis, Lewis, & Loomis, 1998 (quasi-experimental design) **Appendix A1.6**

Characteristic	Description
Study citation	Ross, S. M., McNelis, M., Lewis, T., & Loomis, S. (1998). Evaluation of Success for All programs: Little Rock school district year 1: 1997–1998. Memphis, TN: The University of Memphis, Center for Research in Education Policy.
Participants	This study involved 97 first-grade students with both pretest and posttest data in four schools. Two schools implemented the <i>Success for All</i> ® program (40 students) and two schools were selected as their matched comparison schools (47 students). The <i>SFA</i> ® schools and the comparison schools were similar in poverty level, achievement level, and enrollment. The study reported data on students' outcomes after one year of program implementation.
Setting	The study took place in four elementary schools in Little Rock, Arkansas.
Intervention	Intervention students received the typical SFA® program including the SFA® reading curriculum, tutoring for students in grades 1–3, quarterly assessments, family support teams for students' parents, a facilitator who worked with school personnel, and training for all intervention teachers.
Comparison	No information was provided on the nature of the comparison curriculum. The two comparison schools were matched to the SFA® schools based on poverty level, achievement level, and enrollment. Pretest PPVT scores were used as a covariate to adjust for differences in students' abilities.
Primary outcomes and measurement	Three subtests of the Woodcock Reading Mastery Test were administered: Word Identification, Word Attack, and Passage Comprehension. The Durrell Analysis of Reading Difficulty Oral Reading subtest was also used (see Appendices A2.1–2.3 for more detailed descriptions of outcome measures).
Teacher training	No information on training for the teachers in this study was provided.

Appendix A1.7 Study characteristics: Smith, Ross, Faulks, Casey, Shapiro, & Johnson, 1993 (quasi-experimental design)

Characteristic	Description				
Study citation	Smith, L. J., Ross, S. M., Faulks, A., Casey, J., Shapiro, M., & Johnson, B. (1993). 1991-1992 Ft. Wayne, Indiana SFA results. Memphis, TN: The University of Memphis, Center for Research in Education Policy.				
Participants	This study involved approximately 286 students in kindergarten and first grade in four elementary schools in Fort Wayne, Indiana. Two schools implemented the <i>SFA</i> ® program. Two comparison schools were matched to the intervention schools based on poverty level, historical achievement level, and ethnicity; then pairs of students were matched on PPVT pretest scores. There were 74 kindergarteners and 69 first-grade students in the intervention group and 74 kindergarteners and 69 first-grade students in the comparison group. Exact student attrition rates are not known for this study; however, the post-attrition intervention and comparison samples were equivalent on achievement pretest. School level data—poverty level, achievement, and enrollment—were similar across all schools. The study included data on students' outcomes after one year of program implementation. ¹				
Setting	The study took place in four elementary schools in Fort Wayne, Indiana.				
Intervention	Intervention students received the typical SFA® program including the SFA® reading curriculum, tutoring for students, quarterly assessments, family support teams for students' parents, a facilitator who worked with school personnel, and training for all intervention teachers.				
Comparison	Comparison schools continued using their regular, previously planned curriculum. No other information was provided on the comparison curriculum.				
Primary outcomes and measurement	Four subtests of the Woodcock Reading Mastery Test were used: Letter Identification, Word Identification, Word Attack, and Passage Comprehension. Additional measure included the Peabody Picture Vocabulary Test and Durrell Analysis of Reading Difficulty Oral Reading subtest. The Merrill Language Screening Test and the Test of Language Development were also administered, but have not been included in this review because they were outside the scope of the Beginning Reading review (see Appendices A2.1–2.3 for more detailed descriptions of outcome measures).				
Teacher training	Teachers in their first year of teaching <i>SFA</i> ® classes received three days of summer training and two to four additional in-service days during the school year. A school facilitator monitored and provided feedback throughout the year. Twice a year, trainers provided by the developer visited and observed teachers. After the first year, training was reinforced by regular in-services, an annual <i>SFA</i> ® conference, and implementation checks for the facilitators and trainers.				

^{1.} Additional findings for a low-achieving subset of students (lowest 25% with respect to reading achievement) are presented in Appendices A41–A4.9.

Appendix A2.1 Outcome measures in the alphabetics domain by construct

Outcome measure	Description
Letter knowledge	
Woodcock Reading Mastery Test (WRMT): Letter Identification subtest	The standardized test measures the number of letters that students are able to identify correctly (Smith et al., 1993).
Phonics	
WRMT: Word Identification subtest	The Word Identification subtest is a test of decoding skills. The standardized test requires the child to read aloud isolated real words that range in frequency and difficulty (as cited in Borman et al., 2006; Ross & Casey, 1998; Ross, Alberg, & McNelis, 1997; Ross et al., 1998; Smith et al., 1993).
Woodcock Language Proficiency Battery (WLPB): Letter-Word Identification subtest	The Letter/Word Identification subtest is a standardized test that requires the child to read aloud isolated letters and real words that range in frequency and difficulty (as cited in Dianda & Flaherty, 1995, and Madden et al., 1993).
WRMT and WLPB: Word Attack subtest	The standardized test measures phonemic decoding skills by asking students to read pseudowords. Students are aware that the words are not real (as cited in Borman et al., 2006; Dianda & Flaherty, 1995; Ross & Casey, 1998; Ross, Alberg, & McNelis, 1997; Ross et al., 1998; Madden et al., 1993; Smith et al., 1993).

Appendix A2.2 Outcome measures in the comprehension domain by construct

Outcome measure	Description
Reading comprehension	
WRMT and WLPB: Passage Comprehension subtest	In this standardized test, comprehension is measured by having students fill in missing words in a short paragraph (as cited in Borman et al., 2006; Dianda & Flaherty, 1995; Ross & Casey, 1998; Ross, Alberg, & McNelis, 1997; Ross et al., 1998; Smith et al., 1993).
Durrell Analysis of Reading Difficulty (DARD): Silent Reading Test	An individually-administered, standardized diagnostic test that measures reading rate while students read passages silently and answer comprehension questions (as cited in Madden et al., 1993).
Vocabulary development	
Peabody Picture Vocabulary Test (PPVT)	A standardized, receptive vocabulary test that asks students to choose which one of four pictures corresponds to a test word spoken aloud (as cited in Smith et al., 1993).

Appendix A2.3 Outcome measures in the general reading domain by construct

Outcome measure	Description
California Achievement Test (CAT) Total Reading	A group-administered, standardized assessment battery comprised of numerous reading and language-oriented subtests (as cited in Madden et al., 1993).
DARD Oral Reading Test	An individually administered, standardized diagnostic test that measures reading accuracy, reading rate, and oral reading comprehension (as cited in Ross, Albert, & McNelis, 1997; Ross & Casey, 1998; Ross et al., 1998; Madden et al., 1993; Smith et al., 1993).

Appendix A3.1 Summary of findings for all domains¹

	Domain				
	Alphabetics		Compret	Comprehension	
Outcome measure	Letter knowledge	Phonics	Reading comprehension	Vocabulary development	General reading achievement
Met evidence standards					
Borman et al., 2006	nr	+	+	nr	nr
Met evidence standards with reservations					
Dianda & Flaherty, 1995	nr	(+)	(+)	nr	(+)
Madden et al., 1993	nr	(+)	nr	nr	(+)
Ross, Alberg, & McNelis, 1997	nr	ind	ind	nr	ind
Ross & Casey, 1998	nr	ind	ind	nr	ind
Ross et al., 1998	nr	(+)	ind	nr	ind
Smith et al., 1993	(+)	(+)	(+)	ind	(+)
Rating of effectiveness	Potentially positive		Mixed effects		Potentially positive

nr = no reported outcomes under this construct

^{+ =} study average finding was positive and statistically significant

^{(+) =} study average finding was positive and substantively important, but not statistically significant

ind = study average finding was indeterminate, that is, neither substantively important nor statistically significant

^{1.} This appendix reports summary findings of study averages that were considered for the effectiveness rating and the improvement index in each domain. More detailed information on findings for all measures within the domains and the constructs that factor into the domains can be found in Appendices A3.2–A3.4.

Summary of findings for alphabetics domain¹ Appendix A3.2

				Authors' finding	gs from the study					
		Study uct sample ³	Sample size (schools/ students)	Mean outcome (standard deviation²)		WWC calculations				
Outcome measure	Construct			Success for All® group	Comparison group	Mean difference ⁴ (<i>SFA</i> ® – comparison)	Effect size ⁵	Statistical significance ⁶ (at $\alpha = 0.05$)	Improvement index ⁷	
		Borman et a	ıl., 2006 (random	ized controlled to	rial)8—Three years	of intervention				
WRMT: Word ID subtest ⁹	Phonics	Kindergarten	35/1,425	462.96 (23.56)	457.41 (25.72)	5.55	0.22	Statistically significant	+9	
WRMT: Word Attack subtest ⁹	Phonics	Kindergarten	35/1,425	493.43 (16.45)	487.73 (17.64)	5.70	0.33	Statistically significant	+13	
		Madden et a	l., 1993 (quasi ex	perimental desig	n) ^{8, 10} —Three years	s of intervention				
WLPB): Letter-Word ID subtest	Phonics	Pre-kindergarten (Cohort 1)	4/210	18.25 (5.20)	16.10 (6.69)	2.14	0.36	ns	+ 14	
WLPB: Word Attack subtest	Phonics	Pre-kindergarten (Cohort 1)	4/210	5.41 (4.25)	2.29 (3.55)	3.12	0.79	ns	+ 29	
WLPB: Letter-Word ID subtest	Phonics	Kindergarten (Cohort 2)	4/148	24.50 (5.93)	21.08 (6.61)	3.42	0.54	ns	+21	
WLPB: Word Attack subtest	Phonics	Kindergarten (Cohort 2)	4/148	7.74 (6.00)	5.67 (4.69)	2.08	0.38	ns	+15	
WLPB: Letter-Word ID subtest	Phonics	Grade 1 (Cohort 3)	4/178	28.09 (7.30)	25.28 (5.97)	2.81	0.42	ns	+16	
WLPB: Word Attack subtest	Phonics	Grade 1 (Cohort 3)	4/178	11.47 (7.40)	6.52 (4.87)	4.95	0.79	ns	+18	
		Dianda & Fla	herty, 1995 (qua	si experimental d	esign) ⁸ —Two years	s of intervention				
WLBP: Letter-Word ID subtest	Phonics	English-speaking kindergarten (1992 cohort)	7/219	nr	nr	na	0.34 ¹¹	ns	+13	
WLBP: Word Attack subtest	Phonics	English-speaking kindergarten (1992 cohort)	7/219	nr	nr	na	0.26 ¹¹	ns	+10	

(continued)

Summary of findings for alphabetics domain¹ (continued) **Appendix A3.2**

				Authors' findin	gs from the study					
					outcome I deviation²)	WWC calculations				
Outcome measure	Construct	Study sample ³	Sample size (schools/ students)	Success for All® group	Comparison group	Mean difference ⁴ (<i>SFA</i> ® – comparison)	Effect size ⁵	Statistical significance ⁶ (at $\alpha = 0.05$)	Improvement index ⁷	
		Ross & Ca	sey, 1998 (quasi e	experimental des	ign)8—Two years o	of intervention				
WRMT: Word ID subtest	Phonics	Kindergarten	7/288	32.14 (14.63)	31.30 (14.20)	0.84	0.06	ns	+2	
WRMT: Word Attack subtest	Phonics	Kindergarten	7/288	12.25 (7.36)	10.40 (8.20)	1.85	0.23	ns	+9	
		Ross, Alberg, &	& McNelis, 1997 (q	quasi experiment	al design) ⁸ —One y	ear of intervention	1			
WRMT: Word ID subtest	Phonics	Grade 1	6/252	nr	nr	na	-0.01^{12}	ns	0	
WRMT: Word Attack subtest	Phonics	Grade 1	6/252	18.35	15.86	2.49 (8.89) ¹³	0.2812	ns	+11	
		Ross et	al., 1998 (quasi ex	xperimental desi	gn) ⁸ —One year of	intervention				
WRMT) Word ID subtest	Phonics	Grade 1	4/97	38.27	36.21	2.06 (12.31) ¹⁴	0.17	ns	+7	
WRMT: Word Attack subtest	Phonics	Grade 1	4/97	15.17	11.19	3.98 (8.89) ¹⁴	0.44	ns	+17	
		Smith et	al., 1993 (quasi e	experimental des	ign) ⁸ —One year of	intervention				
WRMT: Word ID subtest	Phonics	Kindergarten (Cohort 1)	4/148	10.26 (9.82)	3.15 (4.95)	7.11	0.91	ns	+32	
WRMT: Letter ID subtest	Letter Knowledge	Kindergarten (Cohort 1)	4/148	32.43 (4.28)	29.36 (7.81)	3.07	0.48	ns	+19	
WRMT: Letter ID subtest ⁹	Letter Knowledge	Grade 1 (Cohort 2)	4/138	nr	nr	na	0.0811	ns	+3	
WRMT: Word ID subtest	Phonics	Grade 1 (Cohort 2)	4/138	35.04 (10.63)	28.00 (14.70)	7.04	0.55	ns	+21	
WRMT: Word Attack subtest	Phonics	Grade 1 (Cohort 2)	4/138	12.60 (7.43)	7.90 (7.91)	4.70	0.61	ns	+23	

(continued)

Appendix A3.2 Summary of findings for alphabetics domain¹ (continued)

				Mean	outcome d deviation ²)	WWC calculations				
Outcome measure	Construct	Study sample ³	Sample size (schools/ students)	Success for All® group	Comparison group	Mean difference ⁴ (<i>SFA</i> ® – comparison)	Effect size ⁵	Statistical significance ⁶ (at $\alpha = 0.05$)	Improvement index ⁷	
Averages for alphabetics ¹⁵										
Borman et al., 2006—Three ye	ars of intervention						0.28	Statistically significant	+11	
Madden et al., 1993—Three ye	ars of intervention						0.55	ns	+21	
Dianda & Flaherty, 1995—Two	years of intervention						0.30	ns	+12	
Ross & Casey, 1998—Two year	rs of intervention						0.14	ns	+6	
Ross, Alberg, & McNelis, 1997-	—One year of intervent	ion					0.13	ns	+5	
Ross et al., 1998—One year of	intervention						0.31	ns	+12	
Smith et al., 1993—One year o	f intervention						0.56	ns	+21	
Domain average for alphabe	tics across all studi	es					0.32	na	+13	
Averages by years of SFA® in	mplementation									
Average of results from studies	with three years of inte	rvention (two stud	ies)				0.38	na	+15	
Average of results from studies	with two years of interv	vention (two studie	s)				0.22	na	+9	
Average of results from studies	with one year of interve	ention (three studie	es)				0.33	na	+13	

na = not applicable

nr = not reported

ns = not statistically significant

- 1. This appendix reports findings considered for the effectiveness rating and the average improvement indices. Earlier findings from longitudinal studies are not included in these ratings, but are reported in Appendix A4.1. Subgroup findings from the studies are not included in these ratings, but are reported in Appendix A4.4.
- 2. The standard deviation across all students in each group shows how dispersed the participants' outcomes are: a smaller standard deviation on a given measure would indicate that participants had more similar outcomes.
- 3. The cohort is defined by the time pretest is administered. For example, kindergarten cohort describes students who completed pretest measures in kindergarten.
- 4. Positive differences and effect sizes favor the intervention group; negative differences and effect sizes favor the comparison group.
- 5. For an explanation of the effect size calculation, see Technical Details of WWC-Conducted Computations.
- 6. Statistical significance is the probability that the difference between groups is a result of chance rather than a real difference between the groups.
- 7. The improvement index represents the difference between the percentile rank of the average student in the intervention condition versus 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.
- 8. The level of statistical significance was reported by the study authors or, where necessary, calculated by the WWC to correct for clustering within classrooms or schools and for multiple comparisons. For an explanation about the clustering correction, see the WWC Tutorial on Mismatch. See Technical Details of WWC-Conducted Computations for the formulas the WWC used to calculate statistical significance. In the case of Borman et al. (2006), a correction for multiple comparisons was needed so the significance levels may differ from those reported in the original study. There was no need to adjust for clustering because the findings were based on HLM analyses. In the case of the six other studies, corrections for both clustering and multiple comparisons were needed so the significance levels may differ from those reported in the original studies.

Appendix A3.2 Summary of findings for alphabetics domain¹ *(continued)*

- 9. Standard deviations and adjusted means have been received through communication with the author (G. Borman, personal communication, 2006).
- 10. WWC combined means and standard deviations for two SFA® schools (Abbottston and City Springs) and their counterparts. Adjusted posttest means (with pretests standard scores as covariates) were used for effect size calculations. Kindergarten and grade 1 cohorts from Abbottston elementary school received four years of intervention.
- 11. Authors reported effect sizes that used comparison group standard deviation in the denominator (Glass's delta). Effect size was computed by subtracting the comparison group mean from the intervention group mean and dividing the result by the comparison group standard deviation.
- 12. Authors reported effect sizes adjusted for PPVT pretest scores.
- 13. The WWC derived pooled standard deviation from the reported means and effect size.
- 14. Authors reported pooled standard deviation.
- 15. The WWC-computed average effect sizes for each study and for the domain across studies are simple averages rounded to two decimal places. The average improvement indices are calculated from the average effect sizes.

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Summary of findings for comprehension domain¹ **Appendix A3.3**

				Authors' findin	gs from the study						
				Mean outcome (standard deviation²)			WWC calculations				
Outcome measure	Construct	Study sample ³	Sample size (schools/ students)	Success for Alf® group	Comparison group	Mean difference ⁴ (<i>SFA</i> ® – comparison)	Effect size ⁵	Statistical significance ⁶ (at $\alpha = 0.05$)	Improvement index ⁷		
		Borman et a	I., 2006 (randomi	zed controlled t	rial)8—Three years	of intervention					
WRMT: Passage Comprehension subtest ⁹	Reading comprehension	Kindergarten	35/1,425	481.41 (14.20)	478.33 (15.33)	3.08	0.21	Statistically significant	+8		
		Dianda & Flal	nerty, 1995 (quas	i-experimental d	esign)8—Two year	s of intervention					
WLPB: Passage Comprehension subtest	Reading comprehension	English-speaking kindergarten (1992 cohort)	7/219	nr	nr	na	0.44	ns	+17		
		Ross & Cas	ey, 1998 (quasi-e	experimental des	sign)8—Two years o	of intervention					
WRMT: Passage Comprehension subtest	Reading comprehension	Kindergarten	7/288	16.09 (8.46)	15.40 (8.70)	0.69	0.08	ns	+3		
		Ross, Alberg, &	McNelis, 1997 (q	uasi-experiment	al design) ⁸ —One y	ear of interventio	n				
WRMT: Passage Comprehension subtest	Reading comprehension	Grade 1	6/252	nr	nr	na	0.01 ¹¹	ns	0		
		Ross et a	ıl., 1998 (quasi-e	kperimental desi	gn)8—One year of	intervention					
WRMT: Passage Comprehension subtest	Reading comprehension	Grade 1	4/97	19.19	17.73	1.46 (8.19) ¹²	0.18	ns	+7		
		Smith et	al., 1993 (quasi-e	xperimental des	ign)8—One year of	intervention					
Peabody Picture Vocabulary Test	Vocabulary development	Kindergarten (Cohort 1)	4/148	nr	nr	na	0.17 ¹⁰	ns	+7		
WRMT: Passage Comprehension subtest	Reading comprehension	Grade 1 (Cohort 2)	4/136	16.37 (8.07)	13.91 (9.31)	2.46	0.28	ns	+11		
Averages for comprehension ¹³							0.01	0	•		
Borman et al., 2006—Three years	s of intervention						0.21	Statistically significant	+8		
Dianda & Flaherty, 1995—Two ye							0.44	ns	+17		
Ross & Casey, 1998—Two years of	of intervention						0.08	ns	+3		

(continued)

Appendix A3.3 Summary of findings for comprehension domain¹ *(continued)*

			Authors' findings from the study Mean outcome (standard deviation²)				WWC calculations				
Outcome measure	Construct	Study sample ³	Sample size (schools/ students)	Success for All® group	Comparison group	Mean difference ⁴ (<i>SFA</i> ® – comparison)	Effect size ⁵	Statistical significance ⁶ (at $\alpha = 0.05$)	Improvement index ⁷		
Ross, Alberg, & McNelis, 1997-	One year of intervent		0.01	ns	0						
Ross et al., 1998—One year of	intervention						0.18	ns	+7		
Smith et al., 1993—One year o	f intervention						0.23	ns	+9		
Domain average for compreh	nension across all st	udies					0.19	na	+8		
Averages by years of SFA® in	nplementation:										
Results from study with three ye	ars of intervention (one	e study)					0.21	Statistically significant	+8		
Average of results from studies	with two years of interv	ention (two studie:	3)				0.26	na	+10		
Average of results from studies	with one year of interve	ention (three studie	s)				0.14	na	+6		

na = not applicable

nr = not reported

ns = not statistically significant

- 1. This appendix reports findings considered for the effectiveness rating and the average improvement indices. Earlier findings from longitudinal studies are not included in these ratings, but are reported in Appendix A4.2. Subgroup findings from the studies are not included in these ratings, but are reported in Appendix A4.5
- 2. The standard deviation across all students in each group shows how dispersed the participants' outcomes are: a smaller standard deviation on a given measure would indicate that participants had more similar outcomes.
- 3. The cohort is defined by the time pretest is administered. For example, kindergarten cohort describes students who completed pretest measures in kindergarten.
- 4. Positive differences and effect sizes favor the intervention group; negative differences and effect sizes favor the comparison group.
- 5. For an explanation of the effect size calculation, see <u>Technical Details of WWC-Conducted Computations</u>.
- 6. Statistical significance is the probability that the difference between groups is a result of chance rather than a real difference between the groups.
- 7. The improvement index represents the difference between the percentile rank of the average student in the intervention condition versus 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.
- 9. Standard deviations and adjusted means have been received through communication with the author.
- 10. Authors reported effect sizes that used comparison group standard deviation in the denominator (Glass's delta). Effect size was computed by subtracting the comparison group mean from the intervention group mean and dividing the result by the comparison group standard deviation.
- 11. Authors reported effect sizes adjusted for PPVT pretest scores.
- 12. Authors reported pooled standard deviation.
- 13. The WWC-computed average effect sizes for each study and for the domain across studies are simple averages rounded to two decimal places. The average improvement indices are calculated from the average effect sizes.

Summary of findings for general reading achievement domain¹ **Appendix A3.4**

				Authors' findin	gs from the study				
					outcome I deviation²)		WWC ca	WWC calculations	
Outcome measure	Construct	Study sample ³	Sample size (schools/ students)	Success for All® group	Comparison group	Mean difference ⁴ (<i>SFA</i> ® – comparison)	Effect size ⁵	Statistical significance ⁶ (at $\alpha = 0.05$)	Improvement index ⁷
			Dianda & Flahert	y, 1995 (quasi-e	xperimental design) ^{8, 9}			
Four years of intervention									
3 WLPB subtests and Durrell Reading subtest combined	General reading	English-speaking kindergarten (1992 cohort)	6/136	nr	nr	na	0.23 ¹⁰	ns	+9
Three years of intervention									
3 WLPB subtests and Durrell Reading subtest combined	General reading	English-speaking kindergarten (1993 cohort)	6/167	nr	nr	na	0.34 ¹⁰	ns	+13
Two years of intervention									
3 WLPB subtests and Durrell Reading subtest combined	General reading	English-speaking kindergarten (1994 cohort)	6/153	nr	nr	na	0.27 ¹⁰	ns	+11
		Madden et a	l., 1993 (quasi-ex	perimental desig	ın) ^{9, 11} —Three year	s of intervention			
Durrell Oral Reading subtest	General reading	Pre-kindergarten (Cohort 1)	4/210	5.45 (4.73)	4.46 (5.58)	0.99	0.19	ns	+8
Durrell Oral Reading subtest	General reading	Kindergarten (Cohort 2)	4/148	12.35 (7.77)	8.51 (5.06)	3.84	0.58	ns	+22
Durrell Oral Reading subtest	General reading	Grade 1 (Cohort 3)	4/178	16.74 (7.07)	12.92 (6.99)	3.82	0.54	ns	+21
		Ross & Cas	sey, 1998 (quasi-e	experimental des	sign) ⁹ —Two years (of intervention			
Durrell Oral Reading subtest	General reading	Kindergarten	7/288	5.35 (4.63)	4.7 0 (4.30)	0.65	0.15	ns	+6
		Ross, Alberg, &	McNelis, 1997 (q	uasi-experiment	tal design) ⁹ —One y	ear of interventio	n		
Durrell Oral Reading subtest	General reading	Grade 1	6/252	nr	nr	na	0.0412	ns	+2

(continued)

Appendix A3.4 Summary of findings for general reading achievement domain¹ (continued)

				Mean	gs from the study outcome I deviation²)		WWC ca	Iculations	
Outcome measure	Construct	Study sample ³	Sample size (schools/ students)	Success for All® group	Comparison group	Mean difference ⁴ (<i>SFA</i> ® – comparison)	Effect size ⁵	Statistical significance ⁶ (at $\alpha = 0.05$)	Improvement index ⁷
		Ross et	al., 1998 (quasi-e	xperimental desi	gn)9—One year of	intervention			
Durrell Oral Reading subtest	General reading	Grade 1	4/97	7.01	6.46	0.55 (3.52) ¹³	0.16	ns	+6
		Smith e	t al., 1993 (quasi-e	experimental des	ign) ⁹ —One year of	intervention			
Durrell Oral Reading subtest	General reading	Grade 1	4/138	6.74 (4.25)	4.68 (3.83)	2.06	0.51	ns	+19
Averages for general reading	g achievement ¹⁴								
Dianda & Flaherty, 1995 ¹⁰ —Tw	o to four years of interv	ention					0.28	ns	+11
Madden et al., 1993—Three ye	ars of intervention						0.44	ns	+17
Ross & Casey, 1998—Two year	rs of intervention						0.15	ns	+6
Ross, Alberg, & McNelis, 1997-	—One year of interventi	on					0.04	ns	+2
Ross et al., 1998—One year of	intervention						0.16	ns	+6
Smith et al., 1993—One year o	f intervention						0.51	ns	+19
Domain average for general read	ding achievement acros	s all studies					0.26	na	+10
Averages by years of SFA® in	mplementation								
Results from study with four year	ar of intervention (one st	tudy)					0.23	ns	+9
Average of results from studies with three years of intervention (two studies)								na	+15
Average of results from studies	Average of results from studies with two years of intervention (two studies)								
Average of results from studies	with one year of interve	ntion (three studie	es)				0.24	na	+9

na = not applicable

nr = not reported

ns = not statistically significant

(continued)

^{1.} This appendix reports findings considered for the effectiveness rating and the average improvement indices. Earlier findings from longitudinal studies are not included in these ratings, but are reported in Appendix A4.3. Subgroup findings from the studies are not included in these ratings, but are reported in Appendix A4.6

^{2.} The standard deviation across all students in each group shows how dispersed the participants' outcomes are: a smaller standard deviation on a given measure would indicate that participants had more similar outcomes.

^{3.} The cohort is defined by the time pretest is administered. For example, kindergarten cohort describes students who completed pretest measures in kindergarten.

^{4.} Positive differences and effect sizes favor the intervention group; negative differences and effect sizes favor the comparison group.

^{5.} For an explanation of the effect size calculation, see <u>Technical Details of WWC-Conducted Computations</u>.

Appendix A3.4 Summary of findings for general reading achievement domain¹ (continued)

- 6. Statistical significance is the probability that the difference between groups is a result of chance rather than a real difference between the groups.
- 7. The improvement index represents the difference between the percentile rank of the average student in the intervention condition versus 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.
- 8. Data are taken from Livingston & Flaherty (1997).
- 9. The level of statistical significance was reported by the study authors or, where necessary, calculated by the WWC to correct for clustering within classrooms or schools and for multiple comparisons. For an explanation about the clustering correction, see the WWC Tutorial on Mismatch. See Technical Details of WWC-Conducted Computations for the formulas the WWC used to calculate statistical significance. In the case of Dianda & Flaherty (1995), Madden et al. (1993), and Smith et al. (1993), a correction for clustering and multiple comparisons was needed so the significance levels may differ from those reported in the original study. In the case of Ross & Casey (1998), Ross, Alberg, & McNelis (1997), and Ross et al. (1998), a correction for clustering was needed so the significance levels may differ from those reported in the original study.
- 10. Authors reported effect sizes that used comparison group standard deviation in the denominator (Glass's delta). Effect size was computed by subtracting the comparison group mean from the intervention group mean and dividing the result by the comparison group standard deviation.
- 11. WWC combined means and standard deviations for two SFA® schools (Abbottston and City Springs) and their counterparts. Adjusted posttest means (with pretests standard scores as covariates) were used for effect size calculations. Kindergarten and grade 1 cohorts from Abbottston elementary school received four years of intervention.
- 12. Authors reported effect sizes adjusted for PPVT pretest scores.
- 13. Authors reported pooled standard deviation.
- 14. The WWC-computed average effect sizes for each study and for the domain across studies are simple averages rounded to two decimal places. The average improvement indices are calculated from the average effect sizes.

Appendix A4.1 Summary of earlier findings from longitudinal studies for alphabetics domain¹

				Authors' finding	gs from the study				
				Mean outcome (standard deviation²) WWC calculations					
Outcome measure	Construct	Study sample ³	Sample size (schools/ students)	Success for All® group	Comparison group	Mean difference ⁴ (<i>SFA</i> ® – comparison)	Effect size ⁵	Statistical significance ⁶ (at $\alpha = 0.05$)	Improvement index ⁷
		Borman et	al., 2006 (randon	nized controlled t	rial) ⁸ —Two years	of intervention			
WRMT: Letter ID subtest	Letter knowledge	Kindergarten and Grade 1	38/3,353	451.42 (14.08)	449.46 (11.19)	1.96	0.15	ns	+6
WRMT: Word ID subtest	Phonics	Kindergarten and Grade 1	38/3,353	449.52 (28.31)	444.82 (29.18)	4.70	0.16	ns	+6
WRMT: Word Attack subtest	Phonics	Kindergarten and Grade 1	38/3,353	487.92 (18.20)	483.29 (19.82)	4.63	0.24	Statistically significant	+10

- 1. This appendix presents earlier longitudinal findings for measures that fall in the alphabetics domain. Data that reflected students' exposure to the intervention for the longest period of time were used for intervention rating purposes and are presented in Appendix A3.2.
- 2. The standard deviation across all students in each group shows how dispersed the participants' outcomes are: a smaller standard deviation on a given measure would indicate that participants had more similar outcomes.
- 3. The cohort is defined by the time pretest is administered. For example, kindergarten cohort describes students who completed pretest measures in kindergarten.
- 4. Positive differences and effect sizes favor the intervention group; negative differences and effect sizes favor the comparison group.
- 5. For an explanation of the effect size calculation, see Technical Details of WWC-Conducted Computations.
- 6. Statistical significance is the probability that the difference between groups is a result of chance rather than a real difference between the groups.
- 7. The improvement index represents the difference between the percentile rank of the average student in the intervention condition and 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.

Appendix A4.2 Summary of earlier findings from longitudinal studies for comprehension domain¹

				Mean	lings from the study an outcome ard deviation²)		WWC ca	Iculations	
Outcome measure	Construct	Study sample ³	Sample size (schools/ students)	Success for All® group	Comparison group	Mean difference ⁴ (<i>SFA</i> ® – comparison)	Effect size ⁵	Statistical significance ⁶ (at $\alpha = 0.05$)	Improvement index ⁷
		Borman et	al., 2006 (randon	nized controlled t	rial) ⁸ —Two years	of intervention			
WRMT: Passage Comprehension subtest	Reading comprehension	Kindergarten and Grade 1	38/3,353	472.00 (18.29)	469.87 (19.53)	2.13	0.11	ns	+4

- 1. This appendix presents earlier longitudinal findings for measures that fall in comprehension domain. Data that reflected students' exposure to the intervention for the longest period of time were used for intervention rating purposes and are presented in Appendix A3.3.
- 2. The standard deviation across all students in each group shows how dispersed the participants' outcomes are: a smaller standard deviation on a given measure would indicate that participants had more similar outcomes.
- 3. The cohort is defined by the time pretest is administered. For example, kindergarten cohort describes students who completed pretest measures in kindergarten.
- 4. Positive differences and effect sizes favor the intervention group; negative differences and effect sizes favor the comparison group.
- 5. For an explanation of the effect size calculation, see Technical Details of WWC-Conducted Computations.
- 6. Statistical significance is the probability that the difference between groups is a result of chance rather than a real difference between the groups.
- 7. The improvement index represents the difference between the percentile rank of the average student in the intervention condition versus 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.
- 8. The level of statistical significance was reported by the study authors or, where necessary, calculated by the WWC to correct for clustering within classrooms or schools (corrections for multiple comparisons were not done for findings not included in the overall intervention rating). For an explanation about the clustering correction, see the <u>WWC-Conducted Computations</u> for the formulas the WWC used to calculate statistical significance. In the case of Borman et al. (2006), there was no need to adjust for clustering because the findings were based on HLM analyses.

Appendix A4.3 Summary of earlier findings from longitudinal studies for general reading achievement domain¹

				Mean	gs from the study outcome deviation ²)	WWC calculations			
Outcome measure	Construct	Study sample ³	Sample size (schools/ students)	Success for All® group	Comparison group	Mean difference ⁴ (<i>SFA</i> ® – comparison)	Effect size ⁵	Statistical significance ⁶ (at $\alpha = 0.05$)	Improvement index ⁷
			Dianda & Flahert	y, 1995 (quasi-ex	xperimental design) ^{8, 9}			
Three years of intervention									
3 WLPB subtests and Durrell Reading subtest combined	General reading	English-speaking kindergarten (1992 cohort)	6/136	nr	nr	na	0.44 ¹⁰	ns	+17
Two years of intervention									
3 WLPB subtests and Durrell Reading subtest combined	General reading	English-speaking kindergarten (1993 cohort)	6/167	nr	nr	na	0.87 ¹⁰	Statistically significant	+31

na = not applicable

nr = not reported

- 1. This appendix presents earlier longitudinal findings for measures that fall in general reading domain. Data that reflected students' exposure to the intervention for the longest period of time were used for intervention rating purposes and are presented in Appendix A3.4.
- 2. The standard deviation across all students in each group shows how dispersed the participants' outcomes are: a smaller standard deviation on a given measure would indicate that participants had more similar outcomes.
- 3. The cohort is defined by the time pretest is administered. For example, kindergarten cohort describes students who completed pretest measures in kindergarten.
- 4. Positive differences and effect sizes favor the intervention group; negative differences and effect sizes favor the comparison group.
- 5. For an explanation of the effect size calculation, see <u>Technical Details of WWC-Conducted Computations</u>.
- 6. Statistical significance is the probability that the difference between groups is a result of chance rather than a real difference between the groups.
- 7. The improvement index represents the difference between the percentile rank of the average student in the intervention condition versus 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.
- 8. Data are taken from Livingston & Flaherty (1997).
- 9. The level of statistical significance was reported by the study authors or, where necessary, calculated by the WWC to correct for clustering within classrooms or schools (corrections for multiple comparisons were not done for findings not included in the overall intervention rating). For an explanation about the clustering correction, see the www.computations for the formulas the WWC used to calculate statistical significance. In the case of Dianda & Flaherty (1995), a correction for clustering was needed so the significance levels may differ from those reported in the original study.
- 10. Authors reported effect sizes that used comparison group standard deviation in the denominator (Glass's delta). Effect size was computed by subtracting the comparison group mean from the intervention group mean and dividing the result by the comparison group standard deviation.

Summary of subgroup findings for alphabetics domain¹ **Appendix A4.4**

				Authors' findin	gs from the study				
			_		outcome d deviation²)		WWC ca	lculations	
Outcome measure	Construct	Study sample ³	Sample size (schools/ students)	Success for All® group	Comparison group	Mean difference ⁴ (<i>SFA</i> ® – comparison)	Effect size ⁵	Statistical significance ⁶ (at α = 0.05)	Improvement index ⁷
		Madden et al.,	1993 (quasi-exp	erimental desi	gn) ^{8, 9} —Three years	s of intervention			
WLPB: Letter-Word ID subtest	Phonics	Pre-kindergarten/ lowest 25% (Cohort 1)	4/54	16.37 (4.88)	10.86 (5.72)	5.51	1.02	ns	+35
WLPB: Word Attack subtest	Phonics	Pre-kindergarten/ lowest 25% (Cohort 1)	4/54	4.55 (4.44)	0.78 (2.41)	3.78	1.04	ns	+35
WLPB: Letter-Word ID subtest	Phonics	Kindergarten/lowest 25% (Cohort 2)	4/38	21.05 (4.54)	14.47 (6.34)	6.58	1.17	Statistically significant	+38
WLPB: Word Attack subtest	Phonics	Kindergarten/lowest 25% (Cohort 2)	4/38	5.21 (3.26)	1.84 (2.48)	3.37	1.14	ns	+37
WLPB: Letter-Word ID subtest	Phonics	Grade 1/lowest 25% (Cohort 3)	4/44	24.14 (7.06)	20.73 (4.87)	3.41	0.55	ns	+21
WLPB: Word Attack subtest	Phonics	Grade 1/lowest 25% (Cohort 3)	4/44	8.27 (7.18)	2.86 (3.93)	5.41	0.92	ns	+32
		Ross & Case	y, 1998 (quasi-e)	cperimental des	sign) ⁹ —Two years	of intervention			
WRMT: Word ID subtest	Phonics	Kindergarten/ lowest 25%	7/79	27.10 (14.25)	25.10 (13.40)	2.00	0.15	ns	+6
WRMT: Word Attack subtest	Phonics	Kindergarten/ lowest 25%	7/79	10.11 (6.13)	7.80 (8.10)	2.31	0.30	ns	+12
		Smith et al	., 1993 (quasi-ex	perimental des	ign) ⁹ —One year of	intervention			
WRMT: Letter ID subtest	Letter Knowledge	Kindergarten/lowest 25% (Cohort 1)	4/38	nr	nr	na	0.3810	ns	+15
WRMT: Word ID subtest	Phonics	Kindergarten/lowest 25% (Cohort 1)	4/38	nr	nr	na	2.56 ¹⁰	Statistically significant	+49
WRMT: Letter ID subtest	Letter Knowledge	Grade 1/lowest 25% (Cohort 2)	4/38	nr	nr	na	-0.07 ¹⁰	ns	- 3
WRMT: Word ID subtest	Phonics	Grade 1/lowest 25% (Cohort 2)	4/38	28.16 (10.02)	18.53 (12.78)	9.63	0.82	ns	+29

(continued)

Appendix A4.4 Summary of subgroup findings for alphabetics domain¹ (continued)

				Mean	gs from the study outcome deviation²)		WWC ca	WWC calculations	
Outcome measure	Construct	Study sample ³	Sample size (schools/ students)	Success for All® group	Comparison group	Mean difference ⁴ (<i>SFA</i> ® – comparison)	Effect size ⁵	Statistical significance ⁶ (at $\alpha = 0.05$)	Improvement index ⁷
WRMT: Word Attack subtest	Phonics	Grade 1/lowest 25% (Cohort 2)	4/38	9.05 (5.37)	4.68 (5.76)	4.37	0.77	ns	+28

na = not applicable

nr = not reported

- 1. This appendix presents subgroup findings (students in the lowest 25% of their grades) for measures that fall in the alphabetics domain. Total group scores were used for rating purposes and are presented in Appendix A3.2.
- 2. The standard deviation across all students in each group shows how dispersed the participants' outcomes are: a smaller standard deviation on a given measure would indicate that participants had more similar outcomes.
- 3. The cohort is defined by the time pretest is administered. For example, kindergarten cohort describes students who completed pretest measures in kindergarten.
- 4. Positive differences and effect sizes favor the intervention group; negative differences and effect sizes favor the comparison group.
- 5. For an explanation of the effect size calculation, see Technical Details of WWC-Conducted Computations.
- 6. Statistical significance is the probability that the difference between groups is a result of chance rather than a real difference between the groups.
- 7. The improvement index represents the difference between the percentile rank of the average student in the intervention condition versus 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.
- 8. WWC combined means and standard deviations for two SFA® schools (Abbottston and City Springs) and their counterparts. Adjusted posttest means (with pretests standard scores as covariates) were used for effect size calculations. Kindergarten and grade 1 cohorts from Abbottston elementary school received four years of intervention.
- 10. Authors reported effect sizes that used comparison group standard deviation in the denominator (Glass's delta).

Appendix A4.5 Summary of subgroup findings for comprehension domain¹

				Authors' finding	gs from the study				
				Mean outcome (standard deviation²)		WWC calculations			
Outcome measure	Construct	Study sample ³	Sample size (schools/ students)	Success for All® group	Comparison group	Mean difference ⁴ (<i>SFA</i> ® – comparison)	Effect size ⁵	Statistical significance ⁶ (at $\alpha = 0.05$)	Improvement index ⁷
		Ross & Case	y, 1998 (quasi-e	experimental des	ign) ⁸ —Two years (of intervention			
WRMT: Passage Comprehension subtest	Reading comprehension	Kindergarten/ lowest 25%	7/79	12.29 (7.79)	11.20 (8.20)	1.09	0.13	ns	+5
		Smith et a	l., 1993 (quasi-e	xperimental desi	ign)8—One year of	intervention			
Peabody Picture Vocabulary Test	Vocabulary development	Kindergarten/lowest 25% (Cohort 1)	4/38	nr	nr	na	0.269	ns	+10
WRMT: Passage Comprehension subtest	Reading comprehension	Grade 1/lowest 25% (Cohort 2)	4/38	9.84 (6.18)	8.11 (7.13)	1.73	0.25	ns	+10

na = not applicable

nr = not reported

- 1. This appendix presents subgroup findings (students in the lowest 25% of their grades) for measures that fall in the comprehension domain. Total group scores were used for rating purposes and are presented in Appendix A3.3.
- 2. The standard deviation across all students in each group shows how dispersed the participants' outcomes are: a smaller standard deviation on a given measure would indicate that participants had more similar outcomes.
- 3. The cohort is defined by the time pretest is administered. For example, kindergarten cohort describes students who completed pretest measures in kindergarten.
- 4. Positive differences and effect sizes favor the intervention group; negative differences and effect sizes favor the comparison group.
- 5. For an explanation of the effect size calculation, see Technical Details of WWC-Conducted Computations.
- 6. Statistical significance is the probability that the difference between groups is a result of chance rather than a real difference between the groups.
- 7. The improvement index represents the difference between the percentile rank of the average student in the intervention condition versus 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.
- 9. Authors reported effect sizes that used comparison group standard deviation in the denominator (Glass's delta). Effect size was computed by subtracting the comparison group mean from the intervention group mean and dividing the result by the comparison group standard deviation.

Appendix A4.6 Summary of subgroup findings for general reading achievement domain¹

				Mean	gs from the study outcome deviation ²)	WWC calculations				
Outcome measure	Construct	Study sample ³	Sample size (schools/ students)	Success for All® group	Comparison group	Mean difference ⁴ (<i>SFA</i> ® – comparison)	Effect size ⁵	Statistical significance ⁶ (at $\alpha = 0.05$)	Improvement index ⁷	
		Madden et al.,	1993 (quasi-ex	perimental desig	n) ^{8, 9} —Three years	s of intervention				
Durrell Oral Reading subtest	General reading	Pre-kindergarten/ lowest 25% (Cohort 1)	4/54	3.78 (4.05)	0.97 (2.62)	2.82	0.81	ns	+29	
Durrell Oral Reading subtest	General reading	Kindergarten/lowest 25% (Cohort 2)	4/38	7.79 (5.25)	4.21 (3.83)	3.58	0.76	ns	+28	
Durrell Oral Reading subtest	General reading	Grade 1/lowest 25% (Cohort 3)	4/44	14.00 (6.42)	7.63 (4.89)	6.36	1.10	ns	+36	
		Ross & Case	y, 1998 (quasi-e	experimental des	ign) ⁹ —Two years o	of intervention				
Durrell Oral Reading subtest	General reading	Kindergarten/ lowest 25%	7/79	4.14 (3.84)	3.00 (3.60)	1.14	0.31	ns	+12	

- 1. This appendix presents subgroup findings (students in the lowest 25% of their grades) for measures that fall in the general reading domain. Total group scores were used for rating purposes and are presented in Appendix A3.4.
- 2. The standard deviation across all students in each group shows how dispersed the participants' outcomes are: a smaller standard deviation on a given measure would indicate that participants had more similar outcomes.
- 3. The cohort is defined by the time pretest is administered. For example, kindergarten cohort describes students who completed pretest measures in kindergarten.
- 4. Positive differences and effect sizes favor the intervention group; negative differences and effect sizes favor the comparison group.
- 5. For an explanation of the effect size calculation, see Technical Details of WWC-Conducted Computations.
- 6. Statistical significance is the probability that the difference between groups is a result of chance rather than a real difference between the groups.
- 7. The improvement index represents the difference between the percentile rank of the average student in the intervention condition versus 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.
- 8. WWC combined means and standard deviations for two SFA® schools (Abbottston and City Springs) and their counterparts. Adjusted posttest means (with pretests standard scores as covariates) were used for effect size calculations. Kindergarten and Grade 1 cohorts from Abbottston elementary school received four years of intervention.
- 9. The level of statistical significance was reported by the study authors or, where necessary, calculated by the WWC to correct for clustering within classrooms or schools (corrections for multiple comparisons were not done for findings not included in the overall intervention rating). For an explanation about the clustering correction, see the www.wwc.conducted.computations for the formulas the WWC used to calculate statistical significance. In the case of Madden et al. (1993) and Ross & Casey (1998), a correction for clustering was needed so the significance levels may differ from those reported in the original study.

Appendix A4.7 Summary of alternative groups findings for alphabetics domain¹

				Authors' finding	gs from the study				
					outcome deviation²)		WWC ca	lculations	
Outcome measure	Construct	Study sample ³	Sample size (schools/ students)	Success for All® group	Comparison group	Mean difference⁴ (<i>SFA</i> ® – comparison)	Effect size ⁵	Statistical significance ⁶ (at $\alpha = 0.05$)	Improvement index ⁷
	I	Madden et al, 1993 (q	juasi-experiment	al design) ^{8, 9} —D	ropout version, thr	ee years of interv	ention		
WLPB: Letter-Word ID subtest	Phonics	Pre-kindergarten (Cohort 1)	6/282	18.74 (5.44)	15.77 (6.53)	2.97	0.49	ns	+ 19
WLPB: Word Attack subtest	Phonics	Pre-kindergarten (Cohort 1)	6/282	5.50 (4.01)	2.23 (3.56)	3.27	0.86	Statistically significant	+31
WLPB: Letter-Word ID subtest	Phonics	Kindergarten (Cohort 2)	6/292	25.39 (6.89)	21.77 (6.78)	3.62	0.53	ns	+20
WLPB: Word Attack subtest	Phonics	Kindergarten (Cohort 2)	6/292	9.08 (6.37)	4.98 (4.79)	4.10	0.72	ns	+27
WLPB: Letter-Word ID subtest	Phonics	Grade 1 (Cohort 3)	6/232	29.14 (6.24)	25.78 (6.37)	3.36	0.53	ns	+20
WLPB: Word Attack subtest	Phonics	Grade 1 (Cohort 3)	6/232	10.22 (6.54)	7.42 (5.92)	2.81	0.45	ns	+17
		Madden et al., 1993	(quasi-experime	ntal design) ¹⁰ —	Dropout version, o	ne year of interve	ntion		
WRMT: Combined Letter ID and Word ID subtests	Phonics	Kindergarten (Cohort 1)	8/256	18.75 (5.86)	17.46 (6.58)	1.29	0.21	ns	+8
WRMT: Word Attack subtest	Phonics	Kindergarten (Cohort 1)	8/256	5.05 (4.54)	3.77 (4.94)	1.28	0.27	ns	+11
WRMT: Word Attack subtest	Phonics	Grade 1 (Cohort 2)	8/216	7.77 (5.70)	8.41 (6.14)	-0.64	-0.11	ns	-4
WRMT: Word ID subtest	Phonics	Grade 1 (Cohort 2)	8/216	24.95 (6.25)	25.41 (6.41)	-0.46	-0.07	ns	-3
WRMT: Word Attack subtest	Phonics	Grade 2 (Cohort 3)	8/106	11.52 (7.32)	10.11 (6.07)	1.41	0.21	ns	+8
WRMT: Word ID subtest	Phonics	Grade 2 (Cohort 3)	8/106	30.42 (4.82)	28.49 (5.80)	1.93	0.36	ns	+14

^{1.} This appendix presents findings for dropout version of *SFA*® for measures that fall in alphabetics domain. Data for the full implementation model of *SFA*® that reflected students' exposure to the intervention for the longest period of time were used for intervention rating purposes and are presented in Appendix A3.2. (continued)

Appendix A4.7 Summary of alternative groups findings for alphabetics domain¹ (continued)

- 2. The standard deviation across all students in each group shows how dispersed the participants' outcomes are: a smaller standard deviation on a given measure would indicate that participants had more similar outcomes.
- 3. The cohort is defined by the time pretest is administered. For example, kindergarten cohort describes students who completed pretest measures in kindergarten.
- 4. Positive differences and effect sizes favor the intervention group; negative differences and effect sizes favor the comparison group.
- 5. For an explanation of the effect size calculation, see Technical Details of WWC-Conducted Computations.
- 6. Statistical significance is the probability that the difference between groups is a result of chance rather than a real difference between the groups.
- 7. The improvement index represents the difference between the percentile rank of the average student in the intervention condition versus 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.
- 8. WWC combined means and standard deviations for three SFA® schools (Dallas Nicholas, Harriet Tubman, and Dr. Bernard Harris) and their counterparts. Adjusted posttest means (with pretests standard scores as covariates) were used for effect size calculations.
- 9. The level of statistical significance was reported by the study authors or, where necessary, calculated by the WWC to correct for clustering within classrooms or schools (corrections for multiple comparisons were not applied to findings not included in the overall intervention rating). For an explanation about the clustering correction, see the www.conducted-computations for the formulas the WWC used to calculate statistical significance. In the case of Madden et al. (1993), a correction for clustering was needed so the significance levels may differ from those reported in the original study.
- 10. Data are taken from Slavin et al. (1990).

Appendix A4.8 Summary of alternative groups findings for comprehension domain¹

				Authors' finding	gs from the study				
				Mean outcome (standard deviation²)		WWC calculations			
Outcome measure	Construct	Study sample ³	Sample size (schools/ students)	Success for All® group	Comparison group	Mean difference⁴ (<i>SFA</i> ® – comparison)	Effect size ⁵	Statistical significance ⁶ (at $\alpha = 0.05$)	Improvement index ⁷
	N	ladden et al., 1993	(quasi-experime	ntal design) ^{8, 9} —	-Dropout version, o	one year of interve	ntion		
Durrell Silent Reading subtest	Reading comprehension	Kindergarten (Cohort 1)	8/256	3.77 (3.95)	3.50 (4.64)	0.27	0.06	ns	+2
Durrell Silent Reading subtest	Reading comprehension	Grade 1 (Cohort 2)	8/216	8.42 (6.14)	7.75 (5.20)	0.67	0.12	ns	+5
Durrell Silent Reading subtest	Reading comprehension	Grade 2 (Cohort 3)	8/106	15.07 (5.25)	11.84 (5.49)	3.23	0.60	ns	+22

- 1. This appendix presents findings for dropout version of SFA® for measures that fall in comprehension domain. Data for the full implementation model of SFA® that reflected students' exposure to the intervention for the longest period of time were used for intervention rating purposes and are presented in Appendix A3.3.
- 2. The standard deviation across all students in each group shows how dispersed the participants' outcomes are: a smaller standard deviation on a given measure would indicate that participants had more similar outcomes.
- 3. The cohort is defined by the time pretest is administered. For example, kindergarten cohort describes students who completed pretest measures in kindergarten.
- 4. Positive differences and effect sizes favor the intervention group; negative differences and effect sizes favor the comparison group.
- 5. For an explanation of the effect size calculation, see Technical Details of WWC-Conducted Computations.
- 6. Statistical significance is the probability that the difference between groups is a result of chance rather than a real difference between the groups.
- 7. The improvement index represents the difference between the percentile rank of the average student in the intervention condition versus 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.
- 8. Data are taken from Slavin et al. (1990).
- 9. The level of statistical significance was reported by the study authors or, where necessary, calculated by the WWC to correct for clustering within classrooms or schools (corrections for multiple comparisons were not applied to findings not included in the overall intervention rating). For an explanation about the clustering correction, see the <a href="https://www.wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number.org/wwc.number

Appendix A4.9 Summary of alternative groups findings for general reading achievement domain¹

				Mean (gs from the study outcome deviation ²)		WWC ca	Iculations		
Outcome measure	Construct	Study sample ³	Sample size (schools/ students)	Success for All® group	Comparison group	Mean difference ⁴ (<i>SFA</i> ® – comparison)	Effect size ⁵	Statistical significance ⁶ (at $\alpha = 0.05$)	Improvement index ⁷	
Madden et al., 1993 (quasi-experimental design) ^{8, 9} —Dropout version, three years of intervention										
Durrell Oral Reading subtest	General reading	Pre-kindergarten (Cohort 1)	6/282	5.70 (4.83)	4.11 (4.83)	1.59	0.33	ns	+13	
Durrell Oral Reading subtest	General reading	Kindergarten (Cohort 2)	6/292	11.81 (7.04)	9.00 (6.50)	2.81	0.41	ns	+16	
Durrell Oral Reading subtest	General reading	Grade 1 (Cohort 3)	6/232	16.60 (6.97)	13.50 (7.25)	3.10	0.44	ns	+17	
		Madden et al., 1993	(quasi-experime	ental design) ¹⁰ —	Dropout version, o	ne year of interve	ntion			
CAT Total Reading	General reading	Kindergarten (Cohort 1)	8/256	470.28 (105.92)	485.13 (107.52)	-14.85	-0.14	ns	-6	
Durrell Oral Reading Subtest	General reading	Kindergarten (Cohort 1)	8/256	4.69 (3.94)	4.89 (4.03)	-0.20	-0.05	ns	-2	
CAT Total Reading	General reading	Grade 1 (Cohort 2)	8/216	348.67 (47.31)	360.67 (49.99)	–12	-0.25	ns	–10	
Durrell Oral Reading Subtest	General reading	Grade 1 (Cohort 2)	8/216	10.09 (5.74)	9.34 (4.33)	0.75	0.15	ns	+6	
CAT Total Reading	General reading	Grade 2 (Cohort 3)	8/106	387.44 (36.27)	388.15 (33.75)	-0.71	-0.02	ns	– 1	
Durrell Oral Reading Subtest	General reading	Grade 2 (Cohort 3)	8/106	16.02 (6.52)	12.13 (4.22)	3.89	0.70	ns	+26	

- 1. This appendix presents findings for the dropout version of SFA® for measures that fall in general reading achievement domain. Data for the full implementation model of SFA® that reflected students' exposure to the intervention for the longest period of time were used for intervention rating purposes and are presented in Appendix A3.4.
- 2. The standard deviation across all students in each group shows how dispersed the participants' outcomes are: a smaller standard deviation on a given measure would indicate that participants had more similar outcomes.
- 3. The cohort is defined by the time pretest is administered. For example, kindergarten cohort describes students who completed pretest measures in kindergarten.
- 4. Positive differences and effect sizes favor the intervention group; negative differences and effect sizes favor the comparison group.
- 5. For an explanation of the effect size calculation, see <u>Technical Details of WWC-Conducted Computations</u>.
- 6. Statistical significance is the probability that the difference between groups is a result of chance rather than a real difference between the groups.
- 7. The improvement index represents the difference between the percentile rank of the average student in the intervention condition versus 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.

Appendix A4.9 Summary of alternative groups findings for general reading achievement domain¹ *(continued)*

- 9. WWC combined means and standard deviations for three SFA® schools (Dallas Nicholas, Harriet Tubman, and Dr. Bernard Harris) and their counterparts. Adjusted posttest means (with pretests standard scores as covariates) were used for effect size calculations.
- 10. Data are taken from Slavin et al. (1990).

Appendix A5.1 Success for All® rating for the alphabetics domain

The WWC rates an intervention's effects in a given outcome domain as positive, potentially positive, mixed, no discernible effects, potentially negative, or negative.¹
For the outcome domain of alphabetics, the WWC rated *Success for All*® as having potentially positive effects. It did not meet the criteria for positive effects because only one study showed a statistically significant positive effect. The remaining ratings (mixed effects, no discernible effects, potentially negative effects, and negative effects) were not considered because *Success for All*® was assigned the highest applicable rating.

Rating received

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

• Criterion 1: At least one study showing a statistically significant or substantively important positive effect.

Met. One study that met standards for a strong design showed a statistically significant positive effect. Four studies that met standards with reservations showed substantively important positive effects.

AND

Criterion 2: No studies showing a statistically significant or substantively important negative effect and fewer or the same number of studies showing indeterminate
effects than showing statistically significant or substantively important positive effects.

Met. No studies showed statistically significant or substantively important negative effects. Two out of the seven studies showed indeterminate effects.

Other ratings considered

Positive effects: Strong evidence of a positive effect with no overriding contrary evidence.

• Criterion 1: Two or more studies showing statistically significant positive effects, at least one of which met WWC evidence standards for a strong design.

Not met. Only one study showed a statistically significant positive effect.

AND

• Criterion 2: No studies showing statistically significant or substantively important *negative* effects.

Met. No studies showed statistically significant or substantively important negative effects.

1. For rating purposes, the WWC considers the statistical significance of individual outcomes and the domain-level effect. The WWC also considers the size of the domain-level effect for ratings of potentially positive or potentially negative effects. See the www.lntervention.negative effects. See the <a href="https://www.lntervention.negative effects. See the <a href="https://www.lnterve

Appendix A5.2 Success for All® rating for the comprehension domain

The WWC rates an intervention's effects in a given outcome domain as positive, potentially positive, mixed, no discernible effects, potentially negative, or negative.¹
For the outcome domain of comprehension, the WWC rated *Success for All*® as having mixed effects. It did not meet the criteria for positive effects because only one study showed statistically significant positive effects. In addition, it did not meet the criteria for potentially positive effects because more studies showed indeterminate effects than substantively important or statistically significant positive effects. The remaining ratings (no discernible effects, potentially negative effects, and negative effects) were not considered because *Success for All*® was assigned the highest applicable rating.

Rating received

Mixed effects: Evidence of inconsistent effects as demonstrated through either of the following criteria.

• Criterion 1: At least one study showing a statistically significant or substantively important positive effect, and at least one study showing a statistically significant or substantively important negative effect, but no more such studies than the number showing a statistically significant or substantively important positive effect.

Not met. No studies showed a statistically significant or substantively important negative effect.

OR

• Criterion 2: At least one study showing a statistically significant or substantively important effect, and more studies showing an *indeterminate* effect than showing a statistically significant or substantively important effect.

Met. One study showed a statistically significant positive effect, one study showed a substantively important positive effect, and four studies showed indeterminate effects.

Other ratings considered

Positive effects: Strong evidence of a positive effect with no overriding contrary evidence.

• Criterion 1: Two or more studies showing statistically significant positive effects, at least one of which met WWC evidence standards for a strong design.

Not met. Only one study had a statistically significant positive effect in this domain.

AND

• Criterion 2: No studies showing statistically significant or substantively important negative effects.

Met. No studies showed statistically significant or substantively important negative effects in this domain.

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

Criterion 1: At least one study showing a statistically significant or substantively important positive effect.

Met. One study had a statistically significant positive effect, and one study had a substantively important positive effect in this domain.

AND

• Criterion 2: No studies showing a statistically significant or substantively important *negative* effect and fewer or the same number of studies showing *indeterminate* effects than showing statistically significant or substantively important *positive* effects.

Not met. No studies showed statistically significant or substantively important negative effects in this domain, and more studies showed indeterminate effects (four) than statistically significant (one) or substantively important positive effects (one) in this domain.

Appendix A5.3 Success for All® rating for the general reading achievement domain

The WWC rates an intervention's effects in a given outcome domain as positive, potentially positive, mixed, no discernible effects, potentially negative, or negative.¹
For the outcome domain of general reading achievement, the WWC rated *Success for All*[®] as having potentially positive effects. It did not meet the criteria for positive effects because only one study showed a statistically significant positive effect. The remaining ratings (mixed effects, no discernible effects, potentially negative effects, and negative effects) were not considered because *Success for All*[®] was assigned the highest applicable rating.

Rating received

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

Criterion 1: At least one study showing a statistically significant or substantively important positive effect.

Met. Three studies showed substantively important positive effects.

AND

• Criterion 2: No studies showing a statistically significant or substantively important *negative* effect and fewer or the same number of studies showing *indeterminate* effects than showing statistically significant or substantively important *positive* effects.

Met. No studies showed statistically significant or substantively important negative effects. Three studies showed indeterminate effects and three studies showed substantively important positive effects.

Other ratings considered

Positive effects: Strong evidence of a positive effect with no overriding contrary evidence.

• Criterion 1: Two or more studies showing statistically significant *positive* effects, at least one of which met WWC evidence standards for a strong design.

Not met. No studies showed a statistically significant positive effect.

AND

• Criterion 2: No studies showing statistically significant or substantively important *negative* effects.

Met. No studies showed statistically significant or substantively important negative effects.

Appendix A6 Extent of evidence by domain

Outcome domain	Number of studies	Schools	Students	Extent of evidence ¹
Alphabetics	7	67	3,103	Moderate to large
Fluency	0	0	0	na
Comprehension	6	65	2,565	Moderate to large
General reading achievement	6	31	1,767	Moderate to large

na = not applicable/not studied

^{1.} A rating of "moderate to large" requires at least two studies and two schools across studies in one domain and a total sample size across studies of at least 350 students or 14 classrooms. Otherwise, the rating is "small."