

REIMAGINING EDUCATION DURING COVID-19 and BEYOND

Selecting and Evaluating Evidence-Based Interventions

**2020 Fall Virtual Instructional Leadership Conference
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Annette Murphy
State Systemic Improvement Program Specialist
Georgia Department of Education
anmurphy@doe.k12.ga.us

Susan Brozovic
State Systemic Improvement Program Specialist
Georgia Department of Education
sbrozovic@doe.k12.ga.us

Session Logistics

- **Handouts:** Session handouts are available for download in the handouts section on your screen and at www.gadoe.org/sdeevents
- **Questions:** Use the question box to type questions or comments throughout the presentation
- **Feedback:** We ask all participants complete the pop-up feedback survey after the close of the session
- **Recording:** A link to the session recording and certificate of attendance will be emailed in 24-hours
- **On Demand:** All sessions will be available on-demand following the conference on the [SDE Events and Conference webpage](#)

Session Goal

The participant will be able to utilize electronic resources and tools to aid in the selection and evaluation of appropriate evidence-based interventions.

Justification for Implementing Evidence-Based Interventions (EBI)

- **Every Student Succeeds Act (ESSA)** requires the use of “Evidence-Based Interventions” and it goes on to outline the level of evidence required.
- The **Individuals with Disabilities Education Act (IDEA 2004)** includes numerous references to “scientifically based instructional practices” and “research-based interventions.”
- **Response to Intervention (RTI)** and a **Multi-Tiered System of Support (MTSS)** it calls for the use of evidence-based instructional practices and interventions.

Interventions

?

Evidence-Based Practices

Tier III Supports

Universal Supports

?

Research-Based Interventions

?

Multi-Tiered System of Supports



Evidence-Based Interventions

?

Strategies

Scientifically-Based

Targeted Supports

?

High Leverage Practices

?

Tier II Supports

The definition of “evidence-based”

Section 8101(21) of the ESEA, as amended by the ESSA (United States Congress, 2015).

(A) IN GENERAL. —Except as provided in subparagraph (B), the term ‘evidence-based’, when used with respect to a State, local educational agency, or school activity, means an activity, strategy, or intervention that—

(i) demonstrates a statistically significant effect on improving student outcomes or other relevant outcomes based on—

(I) **strong evidence** from at least 1 well-designed and well- implemented experimental study;

(II) **moderate evidence** from at least 1 well-designed and well-implemented quasi-experimental study; or

(III) **promising evidence** from at least 1 well-designed and well-implemented correlational study with statistical controls for selection bias; or

(ii) (I) demonstrates a rationale based on high-quality research findings or positive

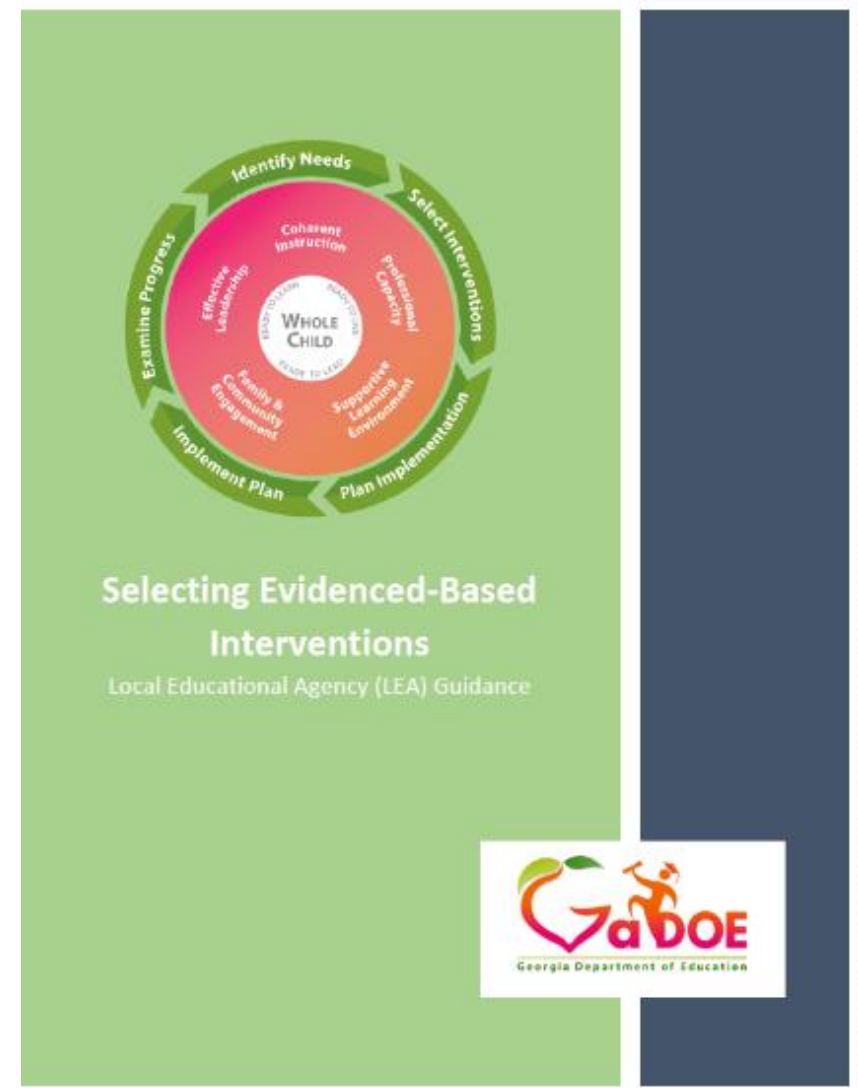
evaluation that such activity, strategy, or intervention is likely to improve student outcomes or other relevant outcomes; and

(II) includes ongoing efforts to examine the effects of such activity, strategy, or intervention.

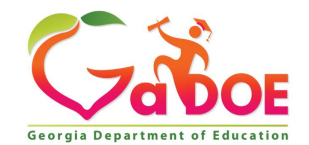
(B) DEFINITION FOR SPECIFIC ACTIVITIES FUNDED UNDER THIS ACT. —When used with respect to interventions or improvement activities or strategies funded under section 1003, the term ‘evidence-based’ means a State, local educational agency, or school activity, strategy, or intervention that meets the requirements of subclause (I), (II), or (III) of subparagraph (A)(i).

The fourth category above, **demonstrates a rationale**, is supported by (a) high-quality research; or (b) a positive evaluation that the intervention is likely to improve student outcomes; or (c) other relevant outcomes that are undergoing evaluation and supported by a logic model.

Broadly, evidence-based interventions are those which have research evidence supporting their success.



Georgia Department of Education

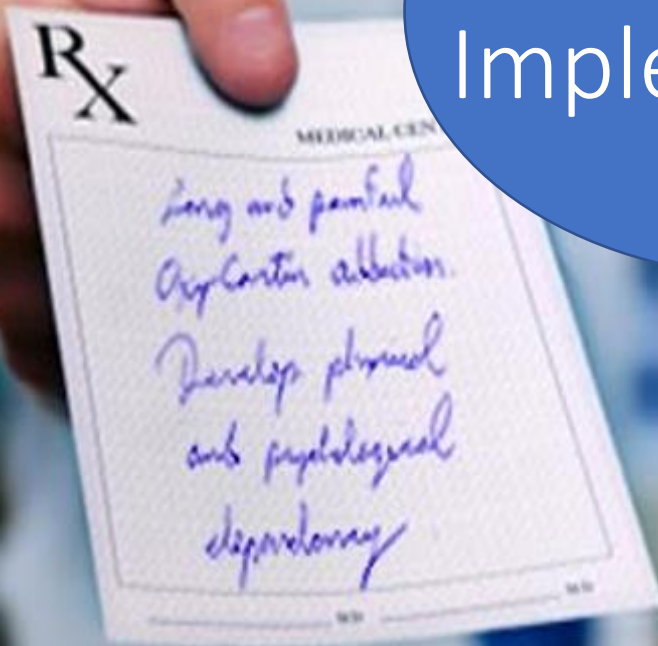


Intervention **Non-Negotiables**

- Be **connected to a specific goal** that is well-defined observable and measurable
- **Have specific, defined, step-by-step descriptions** so they can be
 - Implemented consistently
 - Can be replicated
- **Include ongoing progress monitoring** of the student's response to the intervention
- Ensure **implementation fidelity** and provide **coaching and follow-up**



Fidelity of Implementation



Strategies

A loosely defined collective term that is often used interchangeably with the word “intervention;” **however strategies are generally considered effective instructional and behavioral practices** rather than a set of prescribed instructional procedures, systematically implemented.

Strategy or Intervention?



Is it an Intervention?

- Read 180 ✓
- Check and Connect ✓
- MTSS ✗
- Preferential seating ✗
- Achieve 3000 ✓
- Reading Recovery ✓
- Shortened assignments ✗
- After School Program ✗ ✓
- Suspension ✗
- Wilson Reading System ✓
- Doing MORE of the same ✗
- Retention ✗
- Leveled Literacy Intervention (LLI) ✓
- Early Warning, Intervention & Monitoring System ✓
- PBIS ✗
- Mentoring Program ✗ ✓

GaDOE Federal Programs Guidance

The ESSA and U.S. Department of Education (ED) regulations.....

- Require districts and schools to spend federal funds in support of evidence-based interventions.
- Outline four levels or categories of evidence that can be considered when selecting EBPs:
 - Strong
 - Moderate
 - Promising
 - Demonstrates Rationale



Selecting Evidenced-Based Interventions

Local Educational Agency (LEA) Guidance



[Find the Resource Here](#)

Strong evidence from at least 1 well-designed and well-implemented experimental study;

Moderate evidence from at least 1 well-designed and well-implemented quasi-experimental study; or

Promising evidence from at least 1 well-designed and well-implemented correlational study with statistical controls for selection bias;

Demonstrates a rationale based on high-quality research findings or positive evaluation that such activity, strategy, or intervention is likely to improve student outcomes or other relevant outcomes; and includes ongoing efforts to examine the effects of such activity, strategy, or intervention.



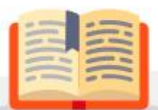
GaDOE LEA Guidance

Federal Funding Source	Level of Evidence Required
Title I, Part A 1003 SIG funds	Interventions applied under Title I, Part A Section 1003 (School Improvement) are required to have strong, moderate, or promising evidence to support them.
IDEA*	Interventions can fall into any of the four categories.
All other federal programs under Titles I–V; Homeless Education	Interventions can fall into any of the four categories.
Federal programs being consolidated with other federal, state, and local funds in a Title I school level schoolwide program	Federal funds consolidated in this manner at the school level lose their identity and, therefore, interventions will not <i>require</i> documentation of an evidence-based intervention.

Find Evidence-Based PK-12 Programs

Your new standard for the most up-to-date and reliable information on programs that meet ESSA evidence standards.

[LEARN MORE ABOUT ESSA](#) 



Reading



Math




Social-Emotional





Evidence Based Reading Programs

Find reading programs that match your state, district, school, or classroom needs while meeting the new ESSA evidence standards.

 REFINE RESULTS 87

CLEAR ALL

PROGRAMS DESIGNED FOR 

WHOLE CLASS 47

STRUGGLING READERS 34

ENGLISH LEARNERS 7

ESSA EVIDENCE RATING 

Success for All — Whole Class


PreK - 6 

 Strong

Whole-school approach using cooperative learning and tutoring

Success for All — Struggling Readers

PreK - 6 

 Strong

Whole-school approach using cooperative learning and tutoring

Sound Partners — Struggling Readers

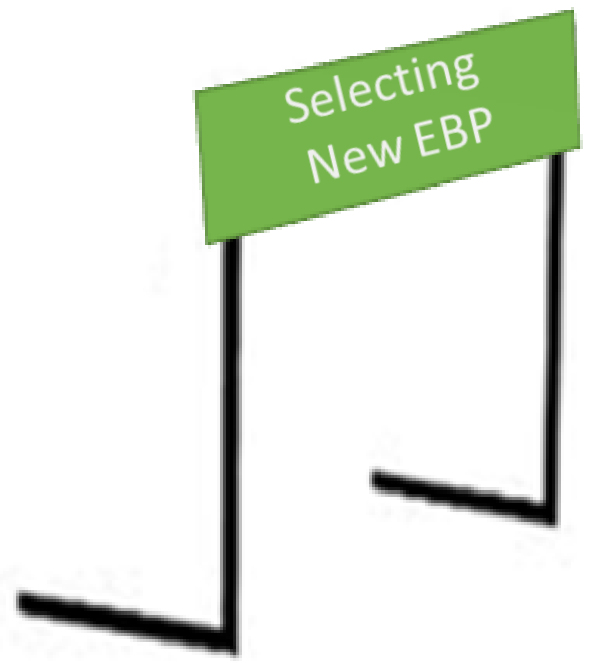
PreK - 2 

 Strong

One-to-one tutoring by paraprofessionals



1



2

How Can Districts Use
the Online Tools to
Evaluate and Select
Evidence-Based
Interventions?

Examining Published Evidence

- **Type/Source**
 - Is the source reputable? Can it be trusted?
- **Population**
 - Were the students included in the study similar to our students?
- **Desired Outcomes**
 - Were the outcomes of interest relevant to our students?
- **Effect Size (for group design studies)**
 - Does the evidence suggest that the intervention can produce the result we expect?



Effect Size expresses the difference in outcomes between the group that received the intervention and the group that did not receive the intervention in standard deviation units.

Burns, Matthew K., et al. "Introduction." *Effective School Interventions: Evidence-Based Strategies for Improving Student Outcomes*, The Guilford Press, 2017, pp. 9-10.



What's an effect size?



A quantitative way to look at the strength of an intervention

Strength	Effect Size
Small (minimum)	0.25 to 0.34
Moderate	0.35 to 0.49
Strong	0.50 or larger

American Institute for Research
(AIR)

Sample Reading Intervention #1:

Multiple Well-designed and Well-implemented Experimental Research Studies

ESSA: Level of Evidence



**What level of evidence would ESSA
assign to this intervention?**

- Strong Evidence
- Moderate Evidence
- Promising Evidence
- Demonstrates a Rationale

Sample Reading Intervention #1:

Multiple Experimental Research Studies



Effect Size .27

Domain Average for General Reading Achievement
across All Studies

**ESSA:
Level of Evidence**

**Strong
Evidence**



**Strength of Intervention:
Effect Size**

What is the **strength** of the intervention or the effect size?

- Small (minimum)
- Moderate
- Strong

Sample Reading Intervention #1: Multiple Experimental Research Studies

Effect Size .27

Domain Average for General Reading Achievement
across All Studies

**ESSA:
Level of Evidence**

**Strong
Evidence**



**Strength of Intervention:
Effect Size**

**Small or
Minimum Effect**

Selecting Evidence-Based Interventions

National Center on Intensive Intervention

National Technical Assistance Center on Transition

What Works Clearinghouse

Promising Practices

National Center for Systemic Improvement

Best Evidence Encyclopedia

National Dropout Prevention Center/Network

Collaborative for Academic, Social, and Emotional Learning

Evidence for ESSA

Student Engagement Project

SAMHSA Evidence-Based Practices Resource Center

Center on Instruction

The IRIS Center

Ideas That Work

Social Programs That Work

Search

Enter keyword

Search Reset

▼ Topics

- Assessment (includes Progress Monitoring)
- Behavior and Classroom Management
- Content Instruction
- Diversity
- Early Intervention/Early Childhood
- Learning Strategies
- Mathematics
- MTSS/RTI (includes intensive intervention)
- Reading, Literacy, Language Arts
- School Improvement/Leadership
- Transition

Evidence-Based Practice Summaries



These research summaries covering instructional strategies and interventions offer information that includes level of effectiveness as well as the age groups for which a given strategy or intervention is designed. Links to the original reports are also provided for those who might wish to explore further.

- Assessment (Includes Progress Monitoring) ▼
- Behavior and Classroom Management ▼
- Content Instruction ▼
- Diversity ▼
- Early Intervention/Early Childhood ▼
- Learning Strategies ▼
- Mathematics ▼
- MTSS/RTI (Includes Intensive Intervention) ▼
- Reading, Literacy, Language Arts ▼
- School Improvement/Leadership ▼
- Transition ▼



Search

Enter keyword

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Evidence-Based Practice Summaries



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Reading, Literacy, Language Arts 

Title	Description	Evidence Base/Source
Accelerated Reader™: Adolescent Literacy	Accelerated Reader™ is a computerized supplementary reading program that provides guided reading instruction to students in grades K–12. It aims to improve students' reading skills through reading practice and by providing frequent feedback on students' progress to teachers.	This program was found to have no discernible effects on reading fluency or comprehension for adolescent learners. <i>U.S. Department of Education</i> View Research Summary
Accelerated Reader™: Beginning Reading	Accelerated Reader™ is a computerized supplementary reading program that provides guided reading instruction to students in grades K–12. It aims to improve students' reading skills through reading practice and by providing frequent feedback on students' progress to teachers.	Accelerated Reader was found to have mixed effects on comprehension and no discernible effects on reading fluency for beginning readers. <i>U.S. Department of Education</i> View Research Summary
Accelerated Reader™: English Language Learners	Accelerated Reader™ is a computerized supplementary reading program that provides guided reading instruction to students in grades K–12. It aims to improve students' reading skills through reading practice and by providing frequent feedback on	This program has not yet been proven effective on ELL. <i>U.S. Department of Education</i> View Research Summary

Academic Intervention Tools Chart

This tools chart presents information about academic intervention programs. The following four tabs include information and ratings on the technical rigor of the studies:

- Study Quality
- Study Results
- Intensity
- Additional Research

The chart reviews studies about the intervention programs. As a result, you may see the intervention appear more than one time and receive different ratings.

Last updated: February 2019

Legend

- Convincing evidence
- Partially convincing evidence
- Unconvincing evidence
- Data unavailable

* Effect Size is statistically significant for at least one measure

* Effect Size is based on unadjusted means

* Effect sizes are available for measures that were equivalent on the pretest.

[View Chart Resources](#)

National Center on **INTENSIVE INTERVENTION**

at American Institutes for Research

FILTER **Subject** **Grade** **Apply**

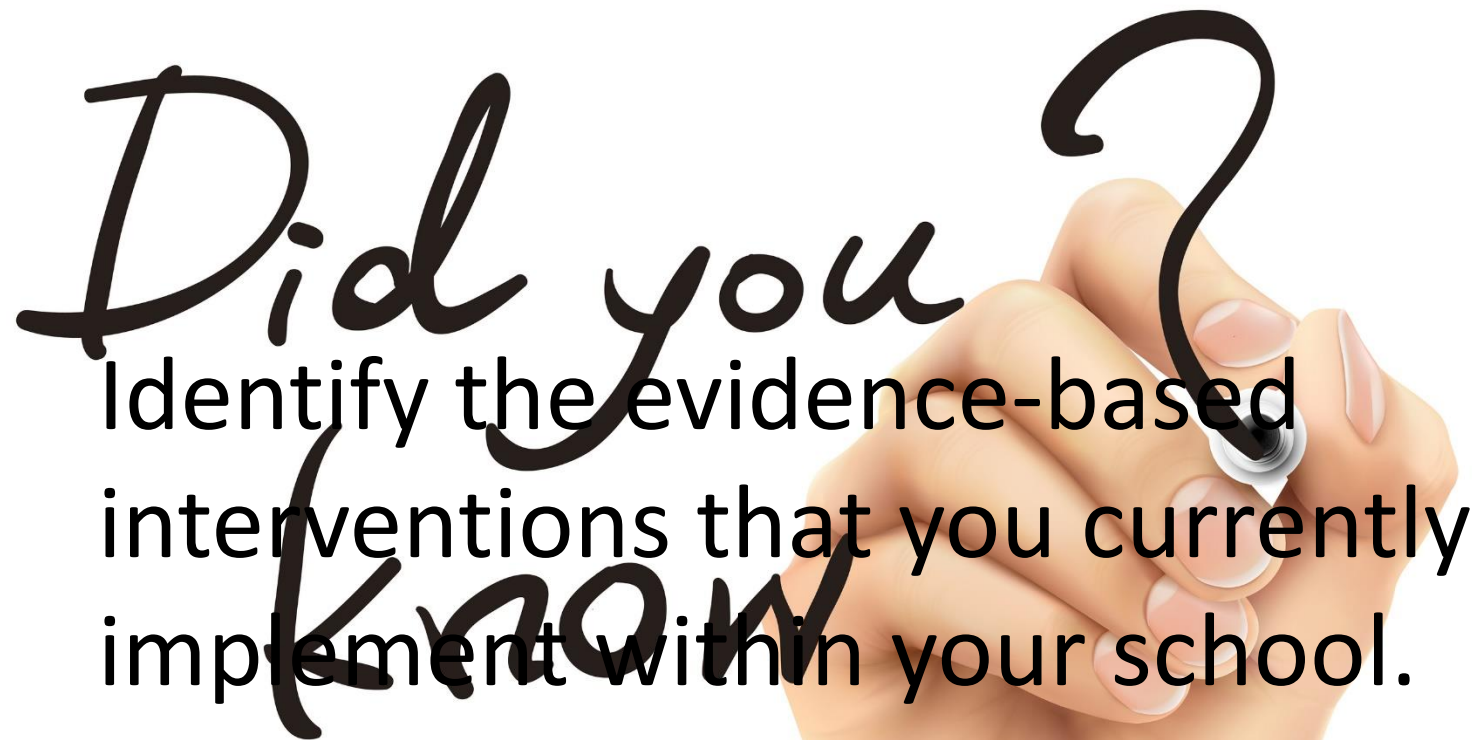
RESULTS Reading Math Writing Pre-K Elementary Middle School High School

[Hide/Show Advanced Filters](#) [Clear Filters](#)

[Reset Chart](#) [Complex Tools](#) [Prev Tab](#) [Next Tab](#)

Study Quality **Study Results** **Intensity** **Additional Research**

All	Title	Study	Study Type	Participants	Design	Fidelity of Impl.	Measures [Targeted]	Measures [Broader]
<input type="checkbox"/>	Academy of MATH	Torgesen et al. (2011)	Group Design					
<input type="checkbox"/>	Academy of READING	Fuchs et al. (1987)	Group Design					
<input type="checkbox"/>	Academy of READING	Torgesen et al. (2011)	Group Design					



Did you know?

Identify the evidence-based interventions that you currently implement within your school.

Intervention Map

Social Skills Training

Tutoring

Read 180

Classworks

Mental Health Therapist

Mentor Program

Reading Support Class

Afterschool Program

Perfect Attendance Celebration








Check in/ Check out

Map of Interventions

Tier I-Universal
All Students

Tier II-Preventive
15-20% of Students

Tier III-Intensive
5-10% of Students

	Tier I-Universal All Students	Tier II-Preventive 15-20% of Students	Tier III-Intensive 5-10% of Students
ATTENDANCE			
BEHAVIOR			
COURSE PERFORMANCE			

Purpose of Intervention Map:

	Tier I-Universal All Students	Tier II-Preventive 15-20% of Students	Tier III-Intensive 3-5% of Students
Attendance (Example)	<ul style="list-style-type: none"> • Every absence brings a response • Create a culture that says attending everyday matters • Positive social incentives for good attendance • Data tracking by teacher teams 	<ul style="list-style-type: none"> • Two or more unexcused absences in a month brings brief daily check by an adult • Attendance team (teacher, counselor, administrator, parent) investigates and problem solves (why isn't student attending) 	<ul style="list-style-type: none"> • Sustained one-on-one attention and problem solving • Appropriate social service or community supports
Behavior			
Course Performance			

- **Align Resources-** Don't buy what you don't need.
- **Identify gaps** in support.
- Compile a **comprehensive list** to ensure at-risk students have access to all available interventions/ supports.

Using the Taxonomy to Find the Best Intervention

- There are NO perfect interventions.
 - **BUT**
- Using the Taxonomy of Intervention Intensity can help you understand the strengths and weaknesses of your current intervention and support your selection of a new intervention.



Evaluate current interventions

Already have an intervention? Use the dimensions of the Taxonomy to evaluate its strengths and limitations for your target population.



Select a new intervention

Looking for a new intervention? Rating the dimensions of potential interventions can help educators compare their strengths and limitations to support selection.



The *Taxonomy of Intervention Intensity** was developed based on existing research to support educators in evaluating and building intervention intensity.



Dimensions*	Description
Strength	How well the program works for students with intensive intervention needs, expressed in terms of effect sizes. Effect sizes of above .25 indicate an intervention has value in improving outcomes. Effect sizes of 0.35 to 0.40 are moderate; effect sizes of 0.50 or larger are strong (preferred).
Dosage	The number of opportunities a student has to respond and receive corrective feedback. It refers to the size of the instructional group, the number of minutes each session lasts, and the number of sessions provided per week.
Alignment	How well the program (a) addresses the target student's full set of academic skill deficits, (b) does <i>not</i> address skills the target student has already mastered (extraneous skills for that student), and (c) incorporates a meaningful focus on grade-appropriate curricular standards.
Attention to transfer	The extent to which an intervention is designed to help students (a) transfer the skills they learn to other formats and contexts and (b) realize connections between mastered and related skills.
Comprehensiveness	The number of explicit instruction principles the intervention incorporates (e.g., providing explanations in simple, direct language; modeling efficient solution strategies instead of expecting students to discover strategies on their own; providing practice so students use the strategies to generate many correct responses; and incorporating systematic cumulative review).
Behavioral support	The extent to which the program incorporates (a) self-regulation and executive function components and (b) behavioral principles to minimize nonproductive behavior.
Individualization	A validated, data-based process for individualizing intervention, in which the educator systematically adjusts the intervention over time, in response to ongoing progress monitoring data, to address the student's complex learning needs.



*Fuchs, L.S., Fuchs, D. & Malone, A.S. (2017). The Taxonomy of Intervention Intensity. *TEACHING Exceptional Children*, 50(1), 35–43.

This document was developed under U.S. Department of Education, Office of Special Education Programs (OSEP) Grant No. HH326Q160001. Celia Rosenquist is the OSEP project officer. The views expressed herein do not necessarily represent the positions or policies of the U.S. Department of Education.

WANT TO LEARN MORE?

Visit us at www.intensiveintervention.org.

Developed based on existing research to support educators in

for students with intensive intervention needs, sometimes expressed as a promising or
source (e.g., NCII Tools Charts, WWC).

as a student has to (a) respond (i.e., practice/demonstrate skill), (b) receive positive feedback
(c) exchange for backup reinforcers, and (d) receive corrective feedback.

addresses school-wide expectations, (b) addresses classroom/teacher expectations, (c) addresses
matches rewards to student's preferences and/or function of problem behavior, and (e) does not

intervention emphasizes how and when a student uses skills across contexts/situations and includes
ing skills across context/situations. The program reinforces the use of skills across

intervention includes a plan for (a) teaching appropriate behavior, (b) adjusting antecedent
m behavior, (c) reinforcing appropriate behavior, (d) minimizing reinforcement for problem
(and supports can be easily faded), (f) monitoring fidelity, (g) working in conjunction with
communicating with parents.

rogram (a) can be easily integrated within context of academic instruction, (b) complements
mic focus, and (c) includes procedures for reinforcing responses related to academic
ent, work completion).

ess for individualizing intervention, in which the educator systematically adjusts the
sponse to ongoing progress monitoring, to address the student's complex learning needs.

The Taxonomy of Intervention Intensity. *TEACHING Exceptional Children*, 50(1), 35–43.

s at www.intensiveintervention.org.

Step 1: Choose an intervention.	Step 2: Based on the implementation in your district. What do you think?	Step 3: Compare to What Works Clearing House Intervention Report
Intervention:		
Effect Size: What is the strength of the intervention (small/ minimum, moderate, strong)?		
Dosage: How is the intervention delivered? That is, the number of times that the student has the opportunity to respond and receive corrective feedback. Number of sessions Duration of sessions Student/ Teacher Ratio		
Alignment: What skill deficit(s) does the intervention address?		
Attention to transfer: Do you have evidence that the intervention demonstrates efficacy on standardized measures or measures of generalization?		



Group Activity

Step 1: Select Intervention

Read 180

Achieve 3000

Level Literacy Intervention

Check and Connect

Wilson Reading

Step 2: Complete first column based on your experience or best guess

Strength

- How well does the intervention work for students with intensive intervention needs (**students below the 20th percentile**)?
- Considerations:
 - Has this intervention been **evaluated** empirically using scientifically sound, rigorous methodology?
 - What were the effects of the study?
 - For *group design studies*: What is the reported standardized mean **effect size** for this intervention, and what does it look like for students with intensive needs (<20th percentile)?
 - For *single-case design studies*: Is it identified as a promising or effective program by a reputable source (e.g., NCII Tools Charts, WWC)?



Strength	Effect Size
Small (minimum)	0.25 to 0.34
Moderate	0.35 to 0.49
Strong	0.50 or larger

Understanding Effect Size

Student Outcome	Early Elementary K–3		Upper Grades 4–9	
	Mean ES	No. of Effects	Mean ES	No. of Effects
Comprehension	.46	25	.09	37
Reading Fluency	.34	11	.12	8
Word Reading	.56	53	.20	22
Spelling	.40	24	.20	5

Note: ES = effect size

(Wanzek et al., 2013)

Effect Size

Additional program information *(continued)*

manual, rules notebook, dictation books, assessment materials, instructional videos, and manipulatives (including sound and word cards). For \$59, teachers can access additional lesson plans, demonstrations, and weekly current event stories with an annual subscription to *Wilson Academy*. Student materials are purchased separately and include text readers (Steps 1–12),

workbooks, and a magnetic journal with letter tiles. *Wilson* provides different levels of professional development and support for teachers, offering in-service professional development to school districts as well as public workshops. A two-day public professional development course costs \$325.

Research

Nine studies reviewed by the WWC investigated the effects of *Wilson Reading System*[®]. One study (Torgesen et al., 2006) was a randomized controlled trial that met WWC evidence standards. The remaining studies did not meet evidence screens.

Torgesen et al. (2006) examined the effects of *Wilson Reading System*[®] on 71 third-grade students in eight school units⁵ in Pennsylvania. Students in the comparison group participated in the regular reading program at their schools.⁶

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 *Wilson Reading System*[®] to be small for alphabets, fluency, and comprehension. No studies that met WWC evidence standards with or without reservations addressed general reading achievement.

Effectiveness

Findings

The WWC review of interventions for beginning reading addresses student outcomes in four domains: alphabets, fluency, comprehension, and general reading achievement.⁸ The study included in this *Wilson Reading System*[®] report covers three domains: alphabets, fluency, and comprehension. Within the alphabets domain, the study reported on one construct: phonics.

Alphabets. Torgesen et al. (2006) analyzed the group differences on four phonics outcomes in the alphabets domain (Woodcock Reading Mastery Test–Revised (WRMT–R) word

identification and word attack subtests and the Test of Word Reading Efficiency (TOWRE) phonetic decoding efficiency and sight word efficiency subtests). **The authors reported statistically significant effects of the *Wilson Reading System*[®] on two of these outcomes (WRMT–R word identification and word attack subtests). The statistical significance of these findings was confirmed by the WWC. The average effect size across the three outcomes was large enough to be considered substantively important according to WWC criteria (that is, an effect size at least 0.25).**

Fluency. Torgesen et al. (2006) examined the effect of the intervention on one outcome in this domain (the Oral Reading

5. A school unit consists of several partnered schools so that the cluster included two third-grade and two fifth-grade instructional groups. Because of the age range defined by the Beginning Reading review, only data of the third graders were included in this review.
6. For the purposes of this study, only word-level skill components of *Wilson Reading System*[®] were implemented, but the study noted that the complete version contains instructional routines and materials that also focus on comprehension and vocabulary.
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.
8. For definitions of the domains, see the [Beginning Reading Protocol](#).

Dosage

- For ***academics***, we consider the number of opportunities that a student must respond and receive corrective feedback.
- For ***behavior***, we consider the number of opportunities a student must
 - respond (i.e., practice/demonstrate skill),
 - receive positive feedback (e.g., praise, tokens, points),
 - exchange for backup reinforcers, and
 - receive corrective feedback.



Variables That Impact Dosage

- Number of sessions (frequency of sessions)
- Duration of sessions
- Student-teacher ratio
- Number of practice problems provided



Dosage

Additional program information¹

Developer and contact

Developed by Barbara Wilson, *Wilson Reading System*® is distributed by Wilson Language Training. Address: 47 Old Webster Road, Oxford, MA 01540. Email: info@WilsonLanguage.com. Web: www.wilsonlanguage.com/w_wrs.htm. Telephone: (508) 368-2399.

Scope of use

The *Wilson Reading System*® was originally designed in 1988 to teach reading and writing to students who experienced difficulties with written language from upper elementary school through adulthood. *Wilson Reading System*® has been implemented in public and private schools, clinics, adult education classes, family literacy programs, and home school settings across the United States. In 2002 *Foundations*® was designed for students in Kindergarten through third grade, building on the principles of the *Wilson Reading System*®. The number of students and schools using the *Wilson Reading System*® is not available.

Teaching

The *Wilson Reading System*® has a daily 10-part lesson plan that builds on interaction between the teacher and student. It is divided into three blocks: parts one through five emphasize word study, parts six through eight emphasize spelling, and parts nine and 10 emphasize fluency and comprehension. The *Wilson*

Reading System® teaches the structure of words in the English language focusing first on basic word skills and then on more complex language structure, including morphological principles. The program provides two levels of vocabulary. Level A uses reading material appropriate for younger or ESL students, while Level B is for older students. The intervention model can be used in reading classes, small groups, or tutorials, for 45–90 minute daily lessons in general or special education classrooms. The intensive model of 60–90 minute instruction in small groups or individually is recommended for the most challenged readers. The *Wilson Reading System*® provides teachers and students with materials necessary to implement the program, including a *Wilson* instructors' manual that helps the teacher prepare the daily lesson.

Training for *Wilson Reading System*® includes a formal professional development process. Offerings include an intensive program certification, workshops, videos, online education, and onsite visits for feedback. In addition, ongoing support, during and after training, is provided by phone, email, an annual national conference, and resources posted on the online *Wilson Academy*.

Cost

The *Wilson Reading System*® instructional sets range from \$149 to \$500. Materials for the teacher include an instructor

Alignment: Academics

To what extent does the intervention

- address the full set of a specific student's academic deficits,
- not address skills the student has already mastered, and
- incorporate a focus on grade level standards?



Alignment: Behavior

How well the program

- addresses school-wide expectations,
- addresses classroom/teacher expectations,
- addresses student's skill deficits,
- matches rewards to student's preferences and/or function of problem behavior, and
- does not address extraneous skills.



Alignment

WWC Intervention Report

U.S. DEPARTMENT OF EDUCATION

What Works Clearinghouse



Beginning Reading

July 2, 2007

Wilson Reading System®

Program description¹

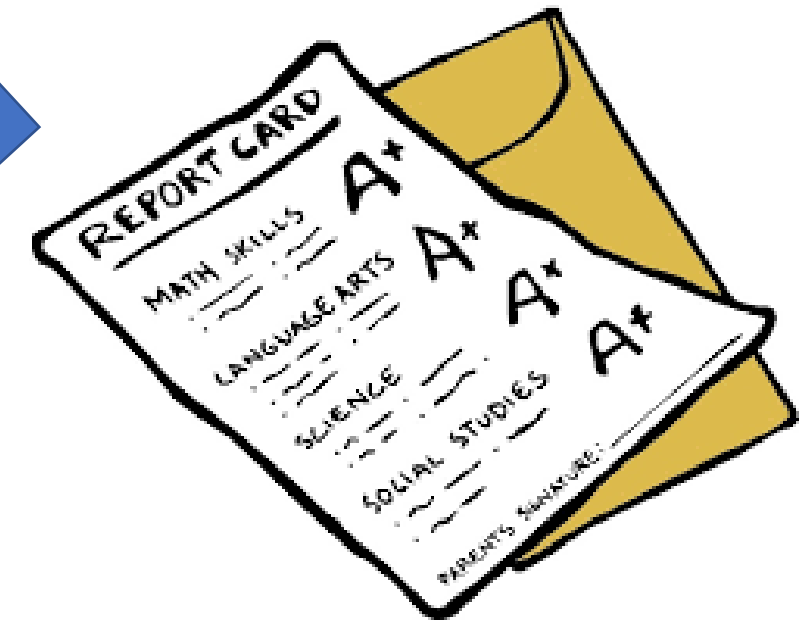
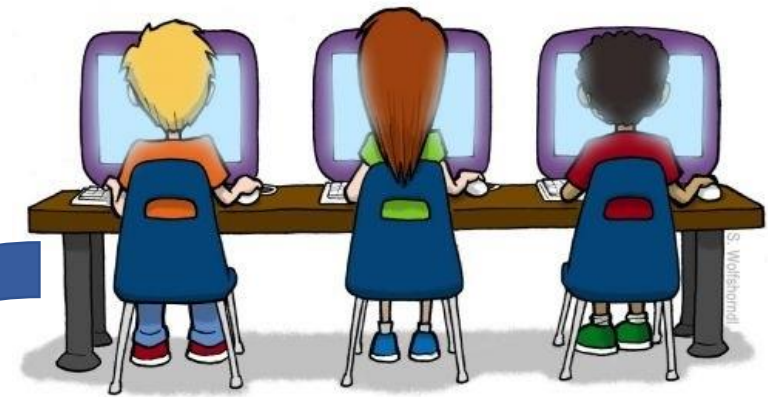
Wilson Reading System® is a supplemental reading and writing curriculum designed to promote reading accuracy (decoding) and spelling (encoding) skills for students with word-level deficits. The program is designed to teach phonemic awareness, alphabetic principles (sound-symbol relationship), word study, spelling, sight word instruction, fluency, vocabulary, oral expressive language development, and comprehension. Students engage in a variety of activities in the classroom, including hearing sounds, practicing with syllable and word cards, listening

to others read, and reading aloud and repeating what they have read in their own words. The program is designed to help children master new skills, with reviews reinforcing previous lessons. This program was designed for students in grade 2 and above. *Foundations*®, a related program not reviewed in this report, was recently developed with the same principle for students in Kindergarten through third grade. In the single study reviewed by the WWC for this report, only the word-level components of *Wilson Reading System*® were implemented.

Attention to Transfer Academics

To what extent is an intervention *systematically designed to*

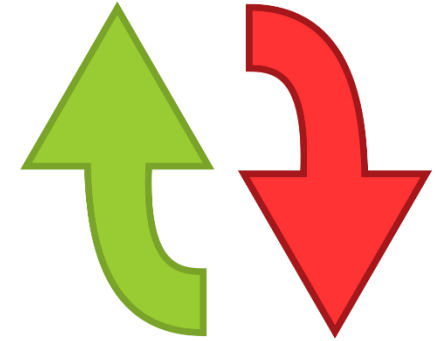
- help students transfer skills they learn to **other formats and contexts,**
- help students realize the **connection between mastered and related skills,** and
- **demonstrate efficacy on standardized measures or measures of generalization?**



“generalization”

Attention to Transfer: Behavior

- The extent to which an intervention emphasizes *how* and *when* a student uses skills across contexts/situations and includes opportunities to practice using skills across contexts/situations.
- The program reinforces the use of skills across contexts/situations.



Attention to Transfer

Appendix A2.1 Outcome measures in the alphabetic domain

Outcome measure	Description
<i>Phonics</i>	
Test of Word Reading Efficiency (TOWRE): Phonetic Decoding Efficiency subtest	The TOWRE is a standardized, nationally normed measure. The phonetic decoding efficiency subtest measures the number of pronounceable printed nonwords that can be accurately decoded within 45 seconds (as cited in Torgesen et al., 2006).
TOWRE: Sight Word Efficiency subtest	The TOWRE is a standardized, nationally normed measure. The sight word efficiency subtest assesses the number of real printed words that can be accurately identified within 45 seconds (as cited in Torgesen et al., 2006).
Woodcock Reading Mastery Test–Revised (WRMT–R): 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 Torgesen et al., 2006).
WRMT–R: Word Attack subtest	This standardized test measures phonemic decoding skills by asking students to read pseudowords. Students are aware that the words are not real (as cited in Torgesen et al., 2006).

Appendix A2.2 Outcome measure in the fluency domain

Outcome measure	Description
Edformation Oral Fluency Assessment	This test measures the number of words correct per minute (WCPM) that students read using three brief grade-level passages (AIMSweb, as cited in Torgesen et al., 2006). These passages include both fiction and nonfiction text. The norms for this test are updated by Edformation each school year.

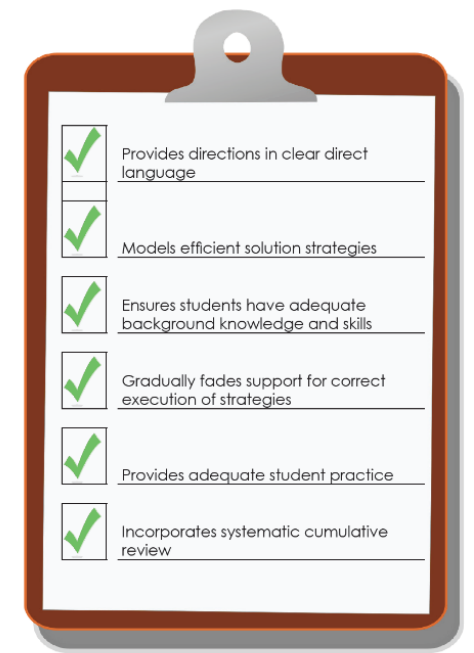
Appendix A2.3 Outcome measures in the comprehension domain

Outcome measure	Description
<i>Reading comprehension</i>	
Group Reading Assessment and Diagnostic Evaluation (GRADE): Passage Comprehension subtest	The GRADE is an untimed, norm-referenced standardized test. The passage comprehension subtest includes a passage of text and corresponding multiple-choice comprehension questions (as cited in Torgesen et al., 2006).
WRMT–R: Passage Comprehension subtest	In this standardized test, comprehension is measured by having students fill in missing words in a short paragraph (as cited in Torgesen et al., 2006).

Comprehensiveness: Academics

Reflects the number of explicit instruction principles that the intervention incorporates. Examples:

1. Provides explanations in simple, direct language.
2. Models efficient strategies (e.g., decoding unknown words) instead of expecting students to discover strategies on their own.
3. Ensures that students have the necessary background knowledge and skills to succeed with these strategies.
4. Gradually fades support for students' correct execution of these strategies.
5. Provides practice so that students use the strategies to generate many correct responses.
6. Incorporates systematic cumulative review.



Comprehensiveness = Explicit Instruction

- Explicit instruction is “a way of teaching where the teacher selects an important objective, models the skills being taught, and provides scaffolded practice to help a student achieve mastery” (Kearns, 2018).
- Explicit instruction has long been the gold standard when intervening with students with and at risk for **learning disabilities** (Ciullo, Sabrina Lo, Wanzek, & Reed, 2016; Scammacca, Roberts, Vaughn, & Stuebing, 2015).

High-Leverage Practices

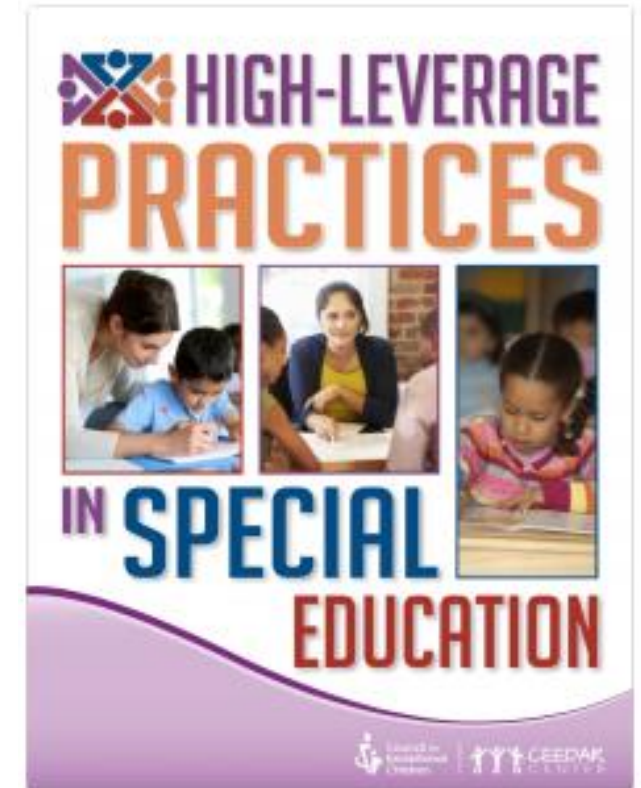


Developed by the Council for Exceptional Children and the CEEDAR Center, high-leverage practices are 22 essential special education techniques that all K-12 special education teachers should master for use across a variety of classroom contexts. Learn more about these practices in the guidance document [High-Leverage Practices in Special Education](#).



This interactive alignment tool, developed in collaboration with CEEDAR, identifies which IRIS resources provide information on HLPs.

Assessment (12)	▼
Collaboration (9)	▼
Instruction (43)	▼
Social/Emotional/Behavioral (26)	▼



Comprehensiveness: Behavior

The extent to which the intervention includes a plan for

- teaching appropriate behavior;
- adjusting antecedent conditions to prevent problem behavior;
- reinforcing appropriate behavior;
- minimizing reinforcement for problem behavior;
- fading supports;
- monitoring fidelity;
- working in conjunction with related services; and
- communicating with parents.

Comprehensiveness

WWC Intervention Report

U.S. DEPARTMENT OF EDUCATION

What Works Clearinghouse



Beginning Reading

July 2, 2007

Wilson Reading System®

Program description¹

Wilson Reading System® is a supplemental reading and writing curriculum designed to promote reading accuracy (decoding) and spelling (encoding) skills for students with word-level deficits. The program is designed to teach phonemic awareness, alphabetic principles (sound-symbol relationship), word study, spelling, sight word instruction, fluency, vocabulary, oral expressive language development, and comprehension. Students engage in a variety of activities in the classroom, including hearing sounds, practicing with syllable and word cards, listening

to others read, and reading aloud and repeating what they have read in their own words. The program is designed to help children master new skills, with reviews reinforcing previous lessons.

This program was designed for students in grade 2 and above. *Foundations*®, a related program not reviewed in this report, was recently developed with the same principle for students in Kindergarten through third grade. In the single study reviewed by the WWC for this report, only the word-level components of *Wilson Reading System*® were implemented.

Behavioral Support in Academic Interventions

Behavioral support refers to the extent to which interventions incorporate

- methods to **promote self-regulation and executive function** and
- behavioral principles to **minimize non-productive behavior**.



Self Regulation

The ability to manage your emotions and behavior in accordance with the demands of the situation

Executive Function

A set of processes that all have to do with managing oneself and one's resources in order to achieve a goal

These make up the mental processes that enable us to plan, focus attention, remember instructions, and juggle multiple tasks successfully.

Behavioral Support for Academic Interventions

Additional program information¹

Developer and contact

Developed by Barbara Wilson, *Wilson Reading System*[®] is distributed by Wilson Language Training. Address: 47 Old Webster Road, Oxford, MA 01540. Email: info@WilsonLanguage.com. Web: www.wilsonlanguage.com/w_wrs.htm. Telephone: (508) 368-2399.

Scope of use

The *Wilson Reading System*[®] was originally designed in 1988 to teach reading and writing to students who experienced difficulties with written language from upper elementary school through adulthood. *Wilson Reading System*[®] has been implemented in public and private schools, clinics, adult education classes, family literacy programs, and home school settings across the United States. In 2002 *Foundations*[®] was designed for students in Kindergarten through third grade, building on the principles of the *Wilson Reading System*[®]. The number of students and schools using the *Wilson Reading System*[®] is not available.

Teaching

The *Wilson Reading System*[®] has a daily 10-part lesson plan that builds on interaction between the teacher and student. It is divided into three blocks: parts one through five emphasize word study, parts six through eight emphasize spelling, and parts nine and 10 emphasize fluency and comprehension. The *Wilson*

Reading System[®] teaches the structure of words in the English language focusing first on basic word skills and then on more complex language structure, including morphological principles. The program provides two levels of vocabulary. Level A uses reading material appropriate for younger or ESL students, while Level B is for older students. The intervention model can be used in reading classes, small groups, or tutorials, for 45–90 minute daily lessons in general or special education classrooms. The intensive model of 60–90 minute instruction in small groups or individually is recommended for the most challenged readers. The *Wilson Reading System*[®] provides teachers and students with materials necessary to implement the program, including a *Wilson* instructors' manual that helps the teacher prepare the daily lesson.

Training for *Wilson Reading System*[®] includes a formal professional development process. Offerings include an intensive program certification, workshops, videos, online education, and onsite visits for feedback. In addition, ongoing support, during and after training, is provided by phone, email, an annual national conference, and resources posted on the online *Wilson Academy*.

Cost

The *Wilson Reading System*[®] instructional sets range from \$149 to \$500. Materials for the teacher include an instructor

Learn More About Behavioral Supports

BEHAVIOR SUPPORT FOR INTENSIVE INTERVENTION



EIGHT MODULES OF FREE COURSE CONTENT FOR PRE-SERVICE AND IN-SERVICE PROFESSIONAL LEARNING. INCLUDES VIDEO LECTURES, ACTIVITIES & MORE.

NCII, through a collaboration with the University of Connecticut and the National Center on Leadership in Intensive Intervention and with support from the CEEDAR Center and PBIS Center, developed content focused on enhancing and developing educators' knowledge of behavioral theory and skills in designing and delivering effective behavioral supports for students with intensive needs.

National Center on
INTENSIVE INTERVENTION
at American Institutes for Research

<https://intensiveintervention.org/intensive-intervention-behavior-course>



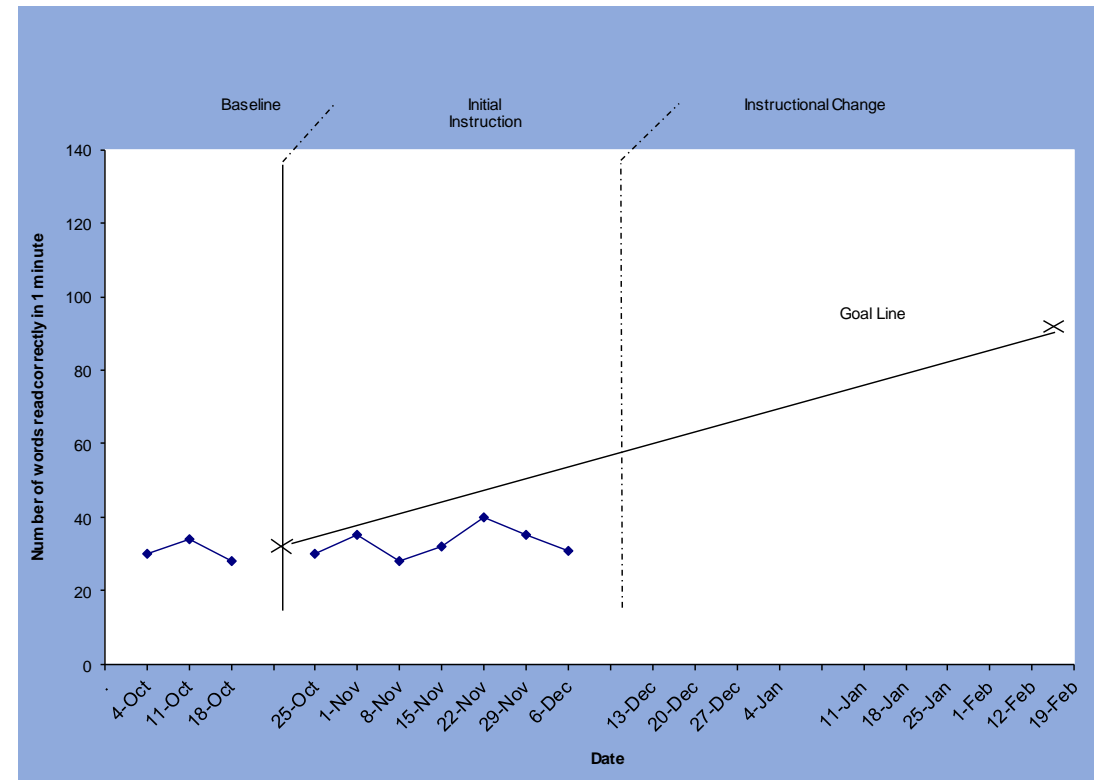
Academic Support for Behavior Intervention

- Are behavioral interventions easily integrated within the context of academic instruction?
- Does it complement rather than supplant the academic focus?
- Does it include procedures for reinforcing responses related to academic achievement (e.g., engagement, work completion)?



Individualization

A **validated, data-based process for individualizing intervention**, in which the special educator or interventionist systematically adjusts the intervention over time, in response to **ongoing progress-monitoring data**, to address the student's complex learning needs.



Individualization

WWC Intervention Report

U.S. DEPARTMENT OF EDUCATION

What Works Clearinghouse



Beginning Reading

July 2, 2007

Wilson Reading System®

Program description¹

Wilson Reading System® is a supplemental reading and writing curriculum designed to promote reading accuracy (decoding) and spelling (encoding) skills for students with word-level deficits. The program is designed to teach phonemic awareness, alphabetic principles (sound-symbol relationship), word study, spelling, sight word instruction, fluency, vocabulary, oral expressive language development, and comprehension. Students engage in a variety of activities in the classroom, including hearing sounds, practicing with syllable and word cards, listening

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This program was designed for students in grade 2 and above. *Foundations*®, a related program not reviewed in this report, was recently developed with the same principle for students in Kindergarten through third grade. In the single study reviewed by the WWC for this report, only the word-level components of *Wilson Reading System*® were implemented.

Step 1: Choose an intervention.	Step 2: Based on the implementation in your district. What do you think?	Step 3: Compare to What Works Clearing House Intervention Report
Intervention:		
Effect Size: What is the strength of the intervention (small/ minimum, moderate, strong)?		
Dosage: How is the intervention delivered? That is, the number of times that the student has the opportunity to respond and receive corrective feedback. Number of sessions Duration of sessions Student/ Teacher Ratio		
Alignment: What skill deficit(s) does the intervention address?		
Attention to transfer: Do you have evidence that the intervention demonstrates efficacy on standardized measures or measures of generalization?		



Group Activity

Step 3: Using the What Works Clearing House Intervention Report to complete column 3

Compare to how the intervention is being implemented in your school or district.

Evidence is Important, But It's Not the Only Thing

From the IRIS Center

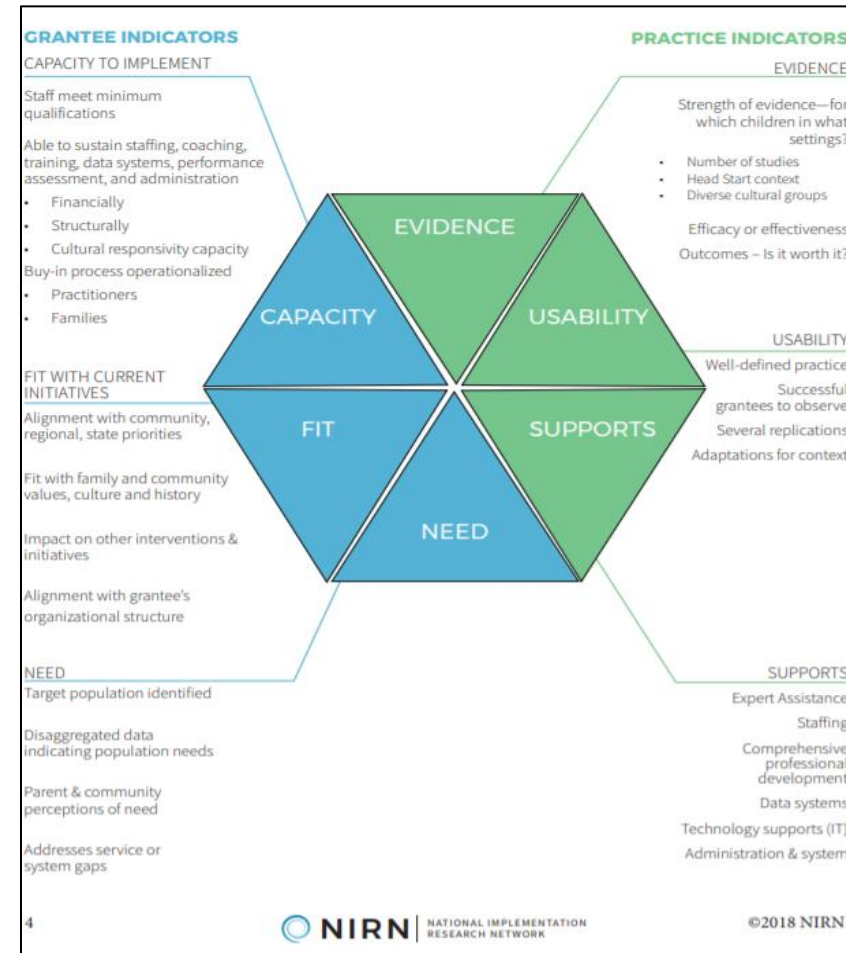
- You need to take into account the unique characteristics of the children and families or students you are working with and the setting in which the practice or program will be implemented.
- You must consider your local resources and whether or not the EBPs can be supported.

Fit and Feasibility

The School Improvement Specialist Field Guide Feasibility Worksheet Tool 4.3

Questions	Yes/No
Does the culture of the school support the expected behaviors the project supports?	
Is sponsorship for the project and its related initiatives assured in the long term?	
Is there oversight or governance of the planned project in place beyond the immediate launch or refocus?	
Is there evidence that you can get adequate funding over the time required for the project to be effective? (For example, if a grant is available to start the work, what funding source will keep the work going after the grant expires?)	
Are expected new behaviors integrated in jobs, performance measures, and evaluations? (For example, if the new behaviors are seen as "outside of the regular work," it will be difficult to sustain them.)	
Are resources committed in the long term to support the adoption of new behaviors? (For example, will resources for retraining or coaching be available after the start-up?)	
Is the infrastructure in place to support the interventions? (Does the plan show the people, time, working arrangements, etc. needed to get the proposed work done?)	
Do current leadership and administrative practices support the new behaviors necessary to carry out the project? (For example, do job descriptions and roles and responsibilities support doing the work of the project?)	
Is there a planned process for monitoring outcomes and impact and measuring progress and results that will give feedback in time to make adjustments?	
Will the change each intervention produces be enough to outweigh the estimated cost and effort?	
Will the targeted results be accepted as achievement or success? (For example, is everyone in agreement on what effectiveness and success look like?)	
Are all proposed interventions aligned with each other so that they work together to achieve the desired state of performance and results? (For example, are improved recruiting processes aligned to the plans of the school to improve specific student outcomes?)	
Will there be a critical mass of internal stakeholders to support this effort? (Critical mass is 51 percent of the right people—those who have the influence to bring others along to support the effort, those who can offer resources or support, and those who could stall progress or prevent the work from being sustainable.)	
Will there be a critical mass of external stakeholders to support this effort?	

The Hexagon: An Exploration Tool





Once at-risk students have been identified through an Early Warning System, LEAs and schools will determine interventions that will best meet the student's needs. The relevance of the evidence, specifically the setting and/or population of the evidence, as well as local capacity to support interventions may predict how well an evidence-based intervention will work in a local context.

Select Evidence-Based Intervention

Select

Evidence-Based Interventions (EBI) are strategies, practices, and programs with available research documenting their effectiveness and data suggesting that if used as designed, they will enhance student progress. EBIs are content specific and should be based on the needs of the student. When selecting EBIs it is important to ensure they have been shown to be effective in working with types students (i.e. age, grade, deficit area, etc.) we plan to use them with and that there is adequate research evidence to support their effectiveness. [Click each image to access resource, presentation or full document.](#)

- National Dropout Prevention Center-15 Effective Strategies for Dropout Prevention
- National Implementation Research Network (NIRN) – Active Implementation Hub

Select Evidence-Based Interventions Evidence-Based Practices: What, Why, Where and How?



Evidence-Based Practices Resource Links

National Center on Learning Disabilities	National Technical Assistance Center on Transition	What Works Clearinghouse	Praxis Practice	National Center for Systemic Improvement
Best Evidence Synthesis	National Dropout Prevention Center/Network	Collaborative for Academic, Social, and Emotional Learning	Framework for ESSA	Student Engagement Project
SAMHSA Evidence				

School Completion Toolkit

Step 2: Select Intervention



<https://www.gadoe.org/Curriculum-Instruction-and-Assessment/Special-Education-Services/Pages/5-steps-School-Completion-Toolkit.aspx>

Session Goal

The participant will be able to utilize electronic resources and tools to aid in the selection and evaluation of appropriate evidence-based interventions.

QUESTIONS



Contact Information

Annette Murphy, State Systemic Improvement Program Specialist

anmurphy@doe.k12.ga.us

404-844-8759

Susan Brozovic, State Systemic Improvement Program Specialist

sbrozovic@doe.k12.ga.us

470-316-8634

Ann Cross, Program Manager GLRS

lacross@doe.k12.ga.us

678-326-2361



Georgia Department of Education



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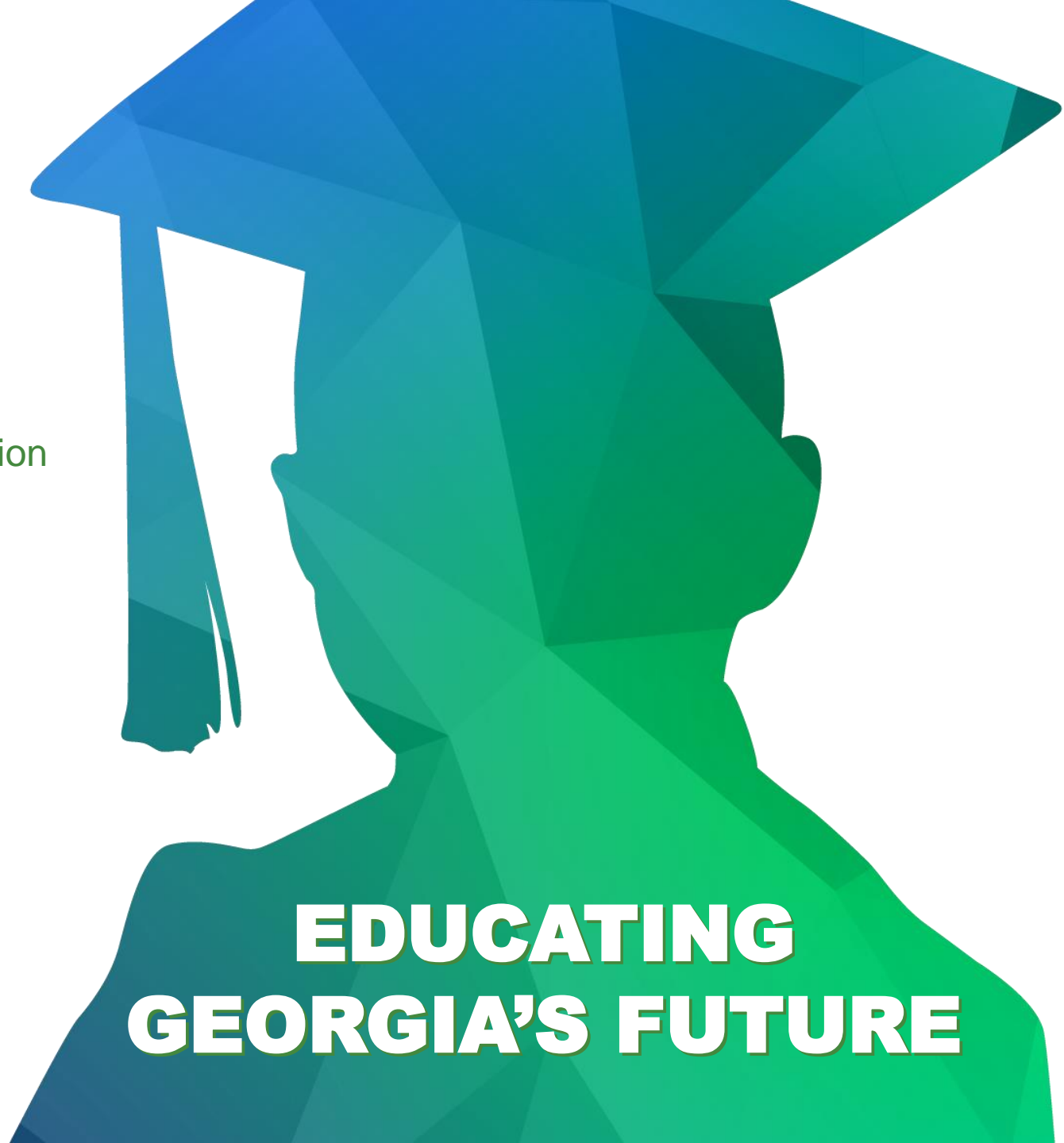
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**EDUCATING
GEORGIA'S FUTURE**



Intervention or Strategy?

Directions: Please circle all interventions below.

Feel free to use technology. Be prepared to justify answers.

Read 180

Check and Connect

MTSS

Preferential seating

Achieve 3000

Reading Recovery

Shortened assignments

After School Program

Suspension

Wilson Reading System

Doing MORE of the same

Retention

Leveled Literacy Intervention

Early Warning, Intervention and Monitoring System

PBIS

Mentoring Program

Taxonomy Activity

Step 1: Choose an intervention.	Step 2: Complete first column based on your experience or best guess	Step 3: Compare to What Works Clearing House Intervention Report
Age Groups:		
Designed for Use		
Effect Size: What is the strength of the intervention (small/ minimum, moderate, strong)?		
Dosage: How is the intervention delivered? That is, the number of times that the student has the opportunity to respond and receive corrective feedback. Number of sessions Duration of sessions Student/ Teacher Ratio		
Alignment: What skill deficit(s) does the intervention address?		
Attention to transfer: Do you have evidence that the intervention demonstrates efficacy on standardized measures or measures of generalization?		
Comprehensiveness: Does the intervention include explicit instruction principles? (Explicit instruction is “a way of teaching where the teacher selects an important objective,		

Step 1: Choose an intervention.	Step 2: Complete first column based on your experience or best guess	Step 3: Compare to What Works Clearing House Intervention Report
models the skills being taught, and provides scaffolded practice to help a student achieve mastery)		
Behavioral Supports: Does the Behavioral support refer to the extent to which interventions incorporate: <ul style="list-style-type: none"> a) methods to promote self-regulation and executive function and b) behavioral principles to minimize non-productive behavior. 		
Individualization: Does the intervention include a validated, data-based process for individualizing intervention, in which the special educator or interventionist systematically adjusts the intervention over time, in response to ongoing progress-monitoring data, to address the student's complex learning needs.		



The *Taxonomy of Intervention Intensity** was developed based on existing research to support educators in evaluating and building intervention intensity.



Dimensions*	Description
Strength	How well the program works for students with intensive intervention needs, expressed in terms of effect sizes. Effect sizes of above .25 indicate an intervention has value in improving outcomes. Effect sizes of 0.35 to 0.40 are moderate; effect sizes of 0.50 or larger are strong (preferred).
Dosage	The number of opportunities a student has to respond and receive corrective feedback. It refers to the size of the instructional group, the number of minutes each session lasts, and the number of sessions provided per week.
Alignment	How well the program (a) addresses the target student's full set of academic skill deficits, (b) does <i>not</i> address skills the target student has already mastered (extraneous skills for that student), and (c) incorporates a meaningful focus on grade-appropriate curricular standards.
Attention to transfer	The extent to which an intervention is designed to help students (a) transfer the skills they learn to other formats and contexts and (b) realize connections between mastered and related skills.
Comprehensiveness	The number of explicit instruction principles the intervention incorporates (e.g., providing explanations in simple, direct language; modeling efficient solution strategies instead of expecting students to discover strategies on their own; providing practice so students use the strategies to generate many correct responses; and incorporating systematic cumulative review).
Behavioral support	The extent to which the program incorporates (a) self-regulation and executive function components and (b) behavioral principles to minimize nonproductive behavior.
Individualization	A validated, data-based process for individualizing intervention, in which the educator systematically adjusts the intervention over time, in response to ongoing progress monitoring data, to address the student's complex learning needs.



*Fuchs, L.S, Fuchs, D. & Malone, A.S. (2017). The Taxonomy of Intervention Intensity. *TEACHING Exceptional Children*, 50(1), 35–43.

This document was developed under U.S. Department of Education, Office of Special Education Programs (OSEP) Grant No. HH326Q160001. Celia Rosenquist is the OSEP project officer. The views expressed herein do not necessarily represent the positions or policies of the U.S. Department of Education.

WANT TO LEARN MORE?

Visit us at www.intensiveintervention.org.



The *Taxonomy of Intervention Intensity** was developed based on existing research to support educators in evaluating and building intervention intensity.



Dimensions*	Description
Strength	How well the program works for students with intensive intervention needs, sometimes expressed as a promising or effective program by a reliable source (e.g., NCII Tools Charts, WWC).
Dosage	The number of opportunities a student has to (a) respond (i.e., practice/demonstrate skill), (b) receive positive feedback (e.g., praise, tokens, points), (c) exchange for backup reinforcers, and (d) receive corrective feedback.
Alignment	How well the program (a) addresses school-wide expectations, (b) addresses classroom/teacher expectations, (c) addresses student's skill deficits, (d) matches rewards to student's preferences and/or function of problem behavior, and (e) does not address extraneous skills.
Attention to transfer	The extent to which an intervention emphasizes how and when a student uses skills across contexts/situations and includes opportunities to practice using skills across context/situations. The program reinforces the use of skills across contexts/situations.
Comprehensiveness	The extent to which the intervention includes a plan for (a) teaching appropriate behavior, (b) adjusting antecedent conditions to prevent problem behavior, (c) reinforcing appropriate behavior, (d) minimizing reinforcement for problem behavior, (e) fading supports (and supports can be easily faded), (f) monitoring fidelity, (g) working in conjunction with related services, and (h) communicating with parents.
Academic support	The extent to which the program (a) can be easily integrated within context of academic instruction, (b) complements rather than supplants academic focus, and (c) includes procedures for reinforcing responses related to academic achievement (e.g., engagement, work completion).
Individualization	A validated, data-based process for individualizing intervention, in which the educator systematically adjusts the intervention over time, in response to ongoing progress monitoring, to address the student's complex learning needs.



*Adapted from Fuchs, L.S, Fuchs, D. & Malone, A.S. (2017). The Taxonomy of Intervention Intensity. *TEACHING Exceptional Children*, 50(1), 35–43.

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What Works Clearinghouse



Wilson Reading System®

Program description¹

Wilson Reading System® is a supplemental reading and writing curriculum designed to promote reading accuracy (decoding) and spelling (encoding) skills for students with word-level deficits. The program is designed to teach phonemic awareness, alphabetic principles (sound-symbol relationship), word study, spelling, sight word instruction, fluency, vocabulary, oral expressive language development, and comprehension. Students engage in a variety of activities in the classroom, including hearing sounds, practicing with syllable and word cards, listening

to others read, and reading aloud and repeating what they have read in their own words. The program is designed to help children master new skills, with reviews reinforcing previous lessons. This program was designed for students in grade 2 and above. *Foundations*®, a related program not reviewed in this report, was recently developed with the same principle for students in Kindergarten through third grade. In the single study reviewed by the WWC for this report, only the word-level components of *Wilson Reading System*® were implemented.

Research

One study of a modified version of *Wilson Reading System*® met the What Works Clearinghouse (WWC) evidence standards.² This one study included more than 70 third grade students in Pennsylvania.³ The WWC considers the extent of

evidence for *Wilson Reading System*® to be small for alphabets, fluency, and comprehension. No studies that met WWC evidence standards with or without reservations addressed general reading achievement.

1. The descriptive information for this program was obtained from a publicly available sources: the program's web site (www.wilsonlanguage.com, downloaded April, 2007) and the research literature (Torgesen et al., 2006). 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 fluency, comprehension, and vocabulary components of the *Wilson Reading System*® were eliminated from instruction at the request of Torgesen et al. for the purposes of the study. For further information about the program implemented, please see the research and findings sections in this report.
3. The evidence presented in this report is based on available research. Findings and conclusions may change as new research becomes available.

Effectiveness

Wilson Reading System[®] was found to have potentially positive effects on alphabets and no discernible effects on fluency and comprehension.

	Alphabets	Fluency	Comprehension	General reading achievement
Rating of effectiveness	Potentially positive	No discernible effects	No discernible effects	na
Improvement index ⁴	Average: +13 percentile points Range: +6 to +22 percentile points	Average: +6 percentile points	Average: +7 percentile points Range: +3 to +11 percentile points	na

na = not applicable

Additional program information¹

Developer and contact

Developed by Barbara Wilson, *Wilson Reading System*[®] is distributed by Wilson Language Training. Address: 47 Old Webster Road, Oxford, MA 01540. Email: info@WilsonLanguage.com. Web: www.wilsonlanguage.com/w_wrs.htm. Telephone: (508) 368-2399.

Scope of use

The *Wilson Reading System*[®] was originally designed in 1988 to teach reading and writing to students who experienced difficulties with written language from upper elementary school through adulthood. *Wilson Reading System*[®] has been implemented in public and private schools, clinics, adult education classes, family literacy programs, and home school settings across the United States. In 2002 *Foundations*[®] was designed for students in Kindergarten through third grade, building on the principles of the *Wilson Reading System*[®]. The number of students and schools using the *Wilson Reading System*[®] is not available.

Teaching

The *Wilson Reading System*[®] has a daily 10-part lesson plan that builds on interaction between the teacher and student. It is divided into three blocks: parts one through five emphasize word study, parts six through eight emphasize spelling, and parts nine and 10 emphasize fluency and comprehension. The *Wilson*

Reading System[®] teaches the structure of words in the English language focusing first on basic word skills and then on more complex language structure, including morphological principles. The program provides two levels of vocabulary. Level A uses reading material appropriate for younger or ESL students, while Level B is for older students. The intervention model can be used in reading classes, small groups, or tutorials, for 45–90 minute daily lessons in general or special education classrooms. The intensive model of 60–90 minute instruction in small groups or individually is recommended for the most challenged readers. The *Wilson Reading System*[®] provides teachers and students with materials necessary to implement the program, including a *Wilson* instructors' manual that helps the teacher prepare the daily lesson.

Training for *Wilson Reading System*[®] includes a formal professional development process. Offerings include an intensive program certification, workshops, videos, online education, and onsite visits for feedback. In addition, ongoing support, during and after training, is provided by phone, email, an annual national conference, and resources posted on the online *Wilson Academy*.

Cost

The *Wilson Reading System*[®] instructional sets range from \$149 to \$500. Materials for the teacher include an instructor

4. These numbers show the average and range of student-level improvement indices for all findings across the study.

Additional program information *(continued)*

manual, rules notebook, dictation books, assessment materials, instructional videos, and manipulatives (including sound and word cards). For \$59, teachers can access additional lesson plans, demonstrations, and weekly current event stories with an annual subscription to *Wilson Academy*. Student materials are purchased separately and include text readers (Steps 1–12),

workbooks, and a magnetic journal with letter tiles. *Wilson* provides different levels of professional development and support for teachers, offering in-service professional development to school districts as well as public workshops. A two-day public professional development course costs \$325.

Research

Nine studies reviewed by the WWC investigated the effects of *Wilson Reading System*[®]. One study (Torgesen et al., 2006) was a randomized controlled trial that met WWC evidence standards. The remaining studies did not meet evidence screens.

Torgesen et al. (2006) examined the effects of *Wilson Reading System*[®] on 71 third-grade students in eight school units⁵ in Pennsylvania. Students in the comparison group participated in the regular reading program at their schools.⁶

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 *Wilson Reading System*[®] to be small for alphabets, fluency, and comprehension. No studies that met WWC evidence standards with or without reservations addressed general reading achievement.

Effectiveness

Findings

The WWC review of interventions for beginning reading addresses student outcomes in four domains: alphabets, fluency, comprehension, and general reading achievement.⁸ The study included in this *Wilson Reading System*[®] report covers three domains: alphabets, fluency, and comprehension. Within the alphabets domain, the study reported on one construct: phonics.

Alphabets. Torgesen et al. (2006) analyzed the group differences on four phonics outcomes in the alphabets domain (Woodcock Reading Mastery Test–Revised (WRMT–R) word

identification and word attack subtests and the Test of Word Reading Efficiency (TOWRE) phonetic decoding efficiency and sight word efficiency subtests). The authors reported statistically significant effects of the *Wilson Reading System*[®] on two of these outcomes (WRMT–R word identification and word attack subtests). The statistical significance of these findings was confirmed by the WWC. The average effect size across the three outcomes was large enough to be considered substantively important according to WWC criteria (that is, an effect size at least 0.25).

Fluency. Torgesen et al. (2006) examined the effect of the intervention on one outcome in this domain (the Oral Reading

5. A school unit consists of several partnered schools so that the cluster included two third-grade and two fifth-grade instructional groups. Because of the age range defined by the Beginning Reading review, only data of the third graders were included in this review.
6. For the purposes of this study, only word-level skill components of *Wilson Reading System*[®] were implemented, but the study noted that the complete version contains instructional routines and materials that also focus on comprehension and vocabulary.
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.
8. For definitions of the domains, see the [Beginning Reading Protocol](#).

Effectiveness *(continued)*

Fluency test). They reported no statistically significant differences between groups for the outcome.

Comprehension. Torgesen et al. (2006) examined two outcomes in this domain (the WRMT–R passage comprehension subtest and the GRADE passage comprehension subtest) and reported no statistically significant effects. The average effect size across the two outcomes was neither statistically significant nor large enough to be considered substantively important.

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,⁹ the size of the difference between participants in the intervention and the comparison conditions, and the consistency in findings across studies (see the [WWC Intervention Rating Scheme](#)).

The WWC found the modified version of the Wilson Reading System® used in this study to have potentially positive effects on alphabets and no discernible effects on fluency and 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 alphabets is +13 percentile points across all findings in the single study, with a range

of +6 to +22 percentile points. The improvement index for the fluency outcome is +6 percentile points in the single study. The average improvement index for comprehension is +7 percentile points across all findings in the study, with a range of +3 to +11 percentile points.

Summary

The WWC reviewed nine studies on *Wilson Reading System*®. One study met WWC evidence standards, and the remaining studies did not meet WWC evidence screens. **Based on this one study, the WWC found potentially positive effects in alphabets, and no discernible effects in fluency and comprehension.** It should be noted, however, that the fluency, comprehension, and vocabulary components of the *Wilson Reading System*® were not used at the request of the researchers conducting the study. The evidence presented in this report is limited and may change as new research emerges.

References

Met WWC evidence standards

Torgesen, J., Myers, D., Schirm, A., Stuart, E., Vartivarian, S., Mansfield, W., et al. (2006). *National assessment of Title I interim report—Volume II: Closing the reading gap: First year*

findings from a randomized trial of four reading interventions for striving readers. Retrieved from Institute of Education Sciences, U.S. Department of Education Web site: <http://www.ed.gov/rschstat/eval/disadv/title1interimreport/index.html>

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 the [Technical Details of WWC-Conducted Computations](#) for the formulas the WWC used to calculate the statistical significance. In the case of *Wilson Reading System*®, corrections for multiple comparisons were needed.

References *(continued)*

Did not meet WWC evidence screens

- Banks, S. R., Guyer, B. P., & Guyer, K. E. (1993). Spelling improvement by college students who are dyslexic. *Annals of Dyslexia*, 43, 186–193.¹⁰
- Gustavson, K., & Watson, N. (1995). *Wilson Reading and Reading to Read*. Augusta, ME: Division of Adult & Community Education.¹⁰
- Guyer, B. P., Banks, S. R., & Guyer, K. E. (1993). Spelling improvement for college students who are dyslexic. *Annals of Dyslexia*, 43, 254–259.¹⁰
- Moats, L. C. (1998). Reading, spelling, and writing disabilities in the middle grades. In B. Wong (Ed.), *Learning about learning disabilities* (2nd edition) (pp. 1–19). Orlando, FL: Academic Press.¹⁰
- Wilson, B. A. (1998). Matching student needs to instruction: Teaching reading and spelling using the Wilson Reading System. In S. A. Vogel & S. Reder (Eds.), *Learning disabilities, literacy, and adult education* (pp. 213–234). Baltimore, MD: Brookes Publishing.¹¹
- Wilson, B. A., & O'Connor, J. R. (1995). Effectiveness of the Wilson Reading System used in public school training. In C. W. McIntyre & J. S. Pickering (Eds.), *Clinical studies of multisensory structured language education* (pp. 247–254). Salem, OR: International Multisensory Structured Language Education Council.¹¹
- Wilson Language Training. (2002). [Evidence of Effectiveness: Wake Forest University, 2002: Data analysis]. Unpublished raw data. Retrieved from http://www.wilsonlanguage.com/PDF/Evidence_Data_Analysis.pdf¹²
- Wilson Language Training Corporation. (2002). *Wilson Literacy Solutions: Evidence of effectiveness Wilson Spelling results 2000*. Retrieved from http://www.wilsonlanguage.com/PDF/Lynn_Results.pdf¹²

For more information about specific studies and WWC calculations, please see the [WWC Wilson Reading System® Technical Appendices](#).

10. The sample is not appropriate to this review: the parameters for this WWC review specified that students should be in grades kindergarten through 3 during the time of the intervention; this study did not focus on the targeted grades.
11. The sample is not appropriate to this review: the parameters for this WWC review specified that students should be in grades kindergarten through 3; this study did not disaggregate students in the eligible range from those outside the range.
12. Does not use a strong causal design: this study did not use a comparison group.

Appendix

Appendix A1.1 Study characteristics: Torgesen et al., 2006 (randomized controlled trial)

Characteristic	Description
Study citation	Torgesen, J., Myers, D., Schirm, A., Stuart, E., Vartivarian, S., Mansfield, W., et al. (2006). <i>National assessment of Title I interim report—Volume II: Closing the reading gap: First year findings from a randomized trial of four reading interventions for striving readers</i> . Retrieved from Institute of Education Sciences, U.S. Department of Education Web site: http://www.ed.gov/rschstat/eval/disadv/title1interimreport/index.html
Participants	The study design was based on random assignment of 37 school units ¹ to one of the four interventions, <i>Corrective Reading</i> , <i>Kaplan SpellRead</i> , <i>Failure Free Reading</i> , and <i>Wilson Reading System</i> [®] . Within each school, students were randomly assigned to the intervention condition or to the comparison condition. ² This report focuses on eight school units assigned to <i>Wilson Reading System</i> [®] . ³ At the time of analysis, the study included a total of 71 third-grade students (53 in the intervention and 18 in the comparison groups). Sample size at posttest by outcome measure was not reported. ⁴ In the intervention group, 61% of the students were female, 45% were African-American, and 36% were eligible for the free/reduced lunch program. In the comparison group, 79% of the students were female, 32% were African-American, and 64% were eligible for the free/reduced lunch program.
Setting	Eight school units in Pennsylvania.
Intervention	<i>Wilson Reading System</i> [®] was implemented by nine teachers from November 2003 to May 2004. For purposes of this study only word-level skills were developed, although the complete version of <i>Wilson</i> contains instructional routines and materials that also focus on comprehension and vocabulary. A 50-minute lesson was delivered five days a week to groups of three students with various basic reading levels. The average capabilities of each three-student group determined the pace of learning. Many of the sessions took place during the students' regular classroom reading instruction but were held outside their regular classrooms. Thus intervention group students received less reading instruction in the classroom than did students in the comparison group. Implementation fidelity was examined by reading program trainers who observed the teachers and coached them over a period of months, project coordinators who observed a sample of instructional sessions, and ratings based on a sample of videotaped sessions. Implementation was rated as acceptable.
Comparison	The comparison group students received their regular reading instruction, which included typical classroom instruction and, in many cases, other services (such as another pull-out program). The comparison group students had fewer small group instructional hours than the intervention group students, but more one-on-one instructional hours.
Primary outcomes and measurement	The outcome measures in the alphabetic domain were the phonemic decoding efficiency and sight word efficiency subtests of the Test of Word Reading Efficiency (TOWRE) and the word identification and word attack subtests of the Woodcock Reading Mastery Tests–Revised (WRMT–R). The only measure in the fluency domain was the Oral Reading Fluency test. Measures in the comprehension domain were the passage comprehension subtest of the Group Reading Assessment and Diagnostic Evaluation (GRADE) and the passage comprehension subtest of WRMT–R. (See Appendix A2.1–2.3 for more detailed descriptions of outcome measures.)
Teacher training	Trainers from <i>Wilson Reading System</i> [®] provided teacher training, which included group instruction, coaching, telephone consultation, and independent study using the <i>Wilson Academy</i> online course. On average, intervention group teachers participated in 62.5 professional development hours across all phases of the study (initial training phase, practice phase, and implementation phase).

1. A school unit consists of several partnered schools so that the cluster included two third-grade and two fifth-grade instructional groups.
2. One of seven indicators of students' reading skills at baseline (TOWRE-SWE) showed statistically significant differences between the intervention and comparison groups. Baseline differences were taken into account in the WWC analysis of the program effects.
3. Findings on *Corrective Reading*, *Kaplan SpellRead*, and *Failure Free Reading* are included in other WWC beginning reading reports.
4. The study reported that four students in the intervention group and three students in the comparison group were lost to analysis. However, it is not clear whether those students were in third grade or were part of an additional sample of fifth-grade students also examined in this study. The fifth-grade sample included in this study is not reviewed in this report because it is outside the scope of the review. For sample relevancy criteria, please see the [Beginning Reading Protocol](#).

Appendix A2.1

Outcome measures in the alphabetic domain

Outcome measure	Description
<i>Phonics</i>	
Test of Word Reading Efficiency (TOWRE): Phonetic Decoding Efficiency subtest	The TOWRE is a standardized, nationally normed measure. The phonetic decoding efficiency subtest measures the number of pronounceable printed nonwords that can be accurately decoded within 45 seconds (as cited in Torgesen et al., 2006).
TOWRE: Sight Word Efficiency subtest	The TOWRE is a standardized, nationally normed measure. The sight word efficiency subtest assesses the number of real printed words that can be accurately identified within 45 seconds (as cited in Torgesen et al., 2006).
Woodcock Reading Mastery Test–Revised (WRMT–R): 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 Torgesen et al., 2006).
WRMT–R: Word Attack subtest	This standardized test measures phonemic decoding skills by asking students to read pseudowords. Students are aware that the words are not real (as cited in Torgesen et al., 2006).

Appendix A2.2

Outcome measure in the fluency domain

Outcome measure	Description
Edformation Oral Fluency Assessment	This test measures the number of words correct per minute (WCPM) that students read using three brief grade-level passages (AIMSweb, as cited in Torgesen et al., 2006). These passages include both fiction and nonfiction text. The norms for this test are updated by Edformation each school year.

Appendix A2.3

Outcome measures in the comprehension domain

Outcome measure	Description
<i>Reading comprehension</i>	
Group Reading Assessment and Diagnostic Evaluation (GRADE): Passage Comprehension subtest	The GRADE is an untimed, norm-referenced standardized test. The passage comprehension subtest includes a passage of text and corresponding multiple-choice comprehension questions (as cited in Torgesen et al., 2006).
WRMT–R: Passage Comprehension subtest	In this standardized test, comprehension is measured by having students fill in missing words in a short paragraph (as cited in Torgesen et al., 2006).

Appendix A3.1 Summary of study findings included in the rating for the alphabetics domain¹

Outcome measure	Study sample	Sample size (school units/ students)	Authors' findings from the study		WWC calculations			
			Mean outcome (standard deviation ²)		Mean difference ³ (Wilson Reading System [®] – comparison)	Effect size ⁴	Statistical significance ⁵ (at $\alpha = 0.05$)	Improvement index ⁶
			Wilson Reading System [®] group	Comparison group				
Torgesen et al., 2006 (randomized controlled trial)⁷								
TOWRE: Phonetic Decoding Efficiency subtest	Grade 3	8/71	91.97 (15.00)	86.19 (15.00)	5.78	0.38	Statistically significant	+15
TOWRE: Sight Word Efficiency subtest	Grade 3	8/71	87.19 (15.00)	84.14 (15.00)	3.05	0.20	ns	+8
WRMT–R: Word Identification subtest	Grade 3	8/71	92.21 (15.00)	89.75 (15.00)	2.46	0.16	ns	+6
WRMT–R: Word Attack subtest	Grade 3	8/71	103.10 (15.00)	94.30 (15.00)	8.80	0.58	Statistically significant	+22
Domain average⁸ for alphabetics						0.33	na	+13

ns = not statistically significant

na = not applicable

1. This appendix reports findings considered for the effectiveness rating and the average improvement indices. The study also included subgroup analyses by initial skill level (WRMT–R word attack subtest and Peabody Picture Vocabulary Test (PPVT)) and socio-economic status. The study found statistically significant positive effects on WRMT–R word attack scores at posttest only for students with initial high word attack scores and students with initial high PPVT scores. Finally, the study found statistically significant positive effects on WRMT–R word attack and TOWRE-PDE posttest scores only for students who were not eligible for free/reduced lunch program, but not for those students who were eligible for free/reduced lunch.
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. Positive differences and effect sizes favor the intervention group; negative differences and effect sizes favor the comparison group. The intervention group mean is the comparison group mean plus the mean difference.
4. For an explanation of the effect size calculation, see [Technical Details of WWC-Conducted Computations](#).
5. Statistical significance is the probability that the difference between groups is a result of chance rather than a real difference between the groups.
6. 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.
7. 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 Torgesen et al. (2006) and the alphabetics domain, no corrections for clustering were needed because students were assigned to conditions. Corrections for multiple comparisons were needed because the study's reported corrections for multiple comparisons were based on grouping of outcomes that differs from the grouping of domains for this review.
8. This row provides the study average, which in this instance is also the domain average. The WWC-computed domain average effect size is a simple average rounded to two decimal places. The domain improvement index is calculated from the average effect size.

Appendix A3.2 Summary of study findings included in the rating for the fluency domain¹

Outcome measure	Study sample	Sample size (school units/ students)	Authors' findings from the study		WWC calculations			
			Mean outcome (standard deviation ²)		Mean difference ³ (Wilson Reading System [®] – comparison)	Effect size ⁴	Statistical significance ⁵ (at $\alpha = 0.05$)	Improvement index ⁶
			Wilson Reading System [®] group	Comparison group				
Torgesen et al., 2006 (randomized controlled trial)⁷								
Oral Reading Fluency	Grade 3	8/71	46.95 (39.20)	41.00 (39.20)	5.95	0.15	ns	+6
Domain average⁸ for fluency						0.15	ns	+6

ns = not statistically significant

1. This appendix reports findings considered for the effectiveness rating and the average improvement indices. The study also included subgroup analyses by initial skill level (WRMT–R word attack subtest and Peabody Picture Vocabulary Test (PPVT)) and socio-economic status. No differences were found between subgroups of students for the outcome in the fluency domain.
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. Positive differences and effect sizes favor the intervention group; negative differences and effect sizes favor the comparison group. The intervention group mean is the comparison group mean plus the mean difference.
4. For an explanation of the effect size calculation, see [Technical Details of WWC-Conducted Computations](#).
5. Statistical significance is the probability that the difference between groups is a result of chance rather than a real difference between the groups.
6. 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.
7. 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 Torgesen et al. (2006) and fluency, no corrections for clustering were needed because students were assigned to conditions. No corrections for multiple comparisons were needed because there is only one outcome in this domain.
8. This row provides the domain average, which in this instance is also the single outcome finding from the one study.

Appendix A3.3 Summary of study findings included in the rating for the comprehension domain¹

Outcome measure	Study sample	Sample size (school units/ students)	Authors' findings from the study			WWC calculations		
			Mean outcome (standard deviation ²)		Mean difference ³ (Wilson Reading System [®] – comparison)	Effect size ⁴	Statistical significance ⁵ (at $\alpha = 0.05$)	Improvement index ⁶
			Wilson Reading System [®] group	Comparison group				
Torgesen et al., 2006 (randomized controlled trial)⁷								
GRADE: Passage Comprehension subtest	Grade 3	8/71	89.97 (15.00)	85.78 (15.00)	4.19	0.28	ns	+11
WRMT-R: Passage Comprehension subtest	Grade 3	8/71	93.87 (15.00)	92.87 (15.00)	1.00	0.07	ns	+3
Domain average⁸ for comprehension						0.17	ns	+7

ns = not statistically significant

1. This appendix reports findings considered for the effectiveness rating and the average improvement indices. The study also included subgroup analyses by initial skill level (WRMT–R word attack subtest and Peabody Picture Vocabulary Test (PPVT)) and socioeconomic status. No differences were found between subgroups of students for outcomes in the comprehension domain.
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. Positive differences and effect sizes favor the intervention group; negative differences and effect sizes favor the comparison group. The intervention group mean is the comparison group mean plus the mean difference.
4. For an explanation of the effect size calculation, see [Technical Details of WWC-Conducted Computations](#).
5. Statistical significance is the probability that the difference between groups is a result of chance rather than a real difference between the groups.
6. 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.
7. 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 Torgesen et al. (2006) and the comprehension domain, no corrections for clustering were needed. No correction for multiple comparisons were needed because the study's reported corrections for multiple comparisons were based on the same grouping of outcomes as the domain for this review.
8. This row provides the domain average, which in this instance is also the study average. The WWC-computed domain average effect size is a simple average rounded to two decimal places. The domain improvement index is calculated from the average effect size.

Appendix A4.1 *Wilson Reading System*[®] rating for the alphabets 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 alphabets, the WWC rated *Wilson Reading System*[®] as 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, no discernible effects, potentially negative, or negative) were not considered because *Wilson Reading System*[®] 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 showed a statistically significant positive effect.

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 a statistically significant or substantively important negative effect. The single study that met the WWC standards showed a statistically significant positive effect.

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 [WWC Intervention Rating Scheme](#) for a complete description.

Appendix A4.2 Wilson Reading System® rating for the fluency 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 fluency, the WWC rated *Wilson Reading System*® as no discernible effects. It did not meet the criteria for other ratings (positive effects, potentially positive effects, mixed effects, potentially negative effects, and negative effects) because the single study that met WWC standards did not show statistically significant or substantively important effects.

Rating received

No discernible effects: No affirmative evidence of effects.

- Criterion 1: None of the studies shows a statistically significant or substantively important effect, either *positive* or *negative*.

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

AND

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

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

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.

Not met. No studies showed statistically significant or 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.

Not met. The single study that met WWC standards showed indeterminate effects.

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 statistically significant or substantively important effects, either positive or negative.

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.

Not met. No studies showed statistically significant or substantively important effects, either positive or negative.

(continued)

Appendix A4.2 Wilson Reading System® rating for the fluency domain (continued)

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

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

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

AND

- Criterion 2: No studies showing a statistically significant or substantively important *positive* effect, or more studies showing statistically significant or substantively important *negative* effects than showing statistically significant or substantively important *positive* effects.

Met. No studies showed statistically significant or substantively important positive effects. In addition, no studies showed a statistically significant or substantively important negative effect.

Negative effects: Strong evidence of a negative effect with no overriding contrary evidence.

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

Not met. No studies showed statistically significant negative effects.

AND

- Criterion 2: No studies showing statistically significant or substantively important *positive* effects.

Met. No studies showed statistically significant or substantively important positive 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 [WWC Intervention Rating Scheme](#) for a complete description.

Appendix A4.3 Wilson Reading System® 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 *Wilson Reading System*® as no discernible effects. It did not meet the criteria for other ratings (positive effects, potentially positive effects, mixed effects, potentially negative effects, and negative effects) because the single study that met WWC standards did not show statistically significant or substantively important effects.

Rating received

No discernible effects: No affirmative evidence of effects.

- Criterion 1: None of the studies shows a statistically significant or substantively important effect, either *positive* or *negative*.

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

AND

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

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

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.

Not met. No studies showed statistically significant or 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.

Not met. The single study that met WWC standards showed indeterminate effects.

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 statistically significant or substantively important effects, either positive or negative.

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.

Not met. No studies showed statistically significant or substantively important effects, either positive or negative.

(continued)

Appendix A4.3 Wilson Reading System® rating for the comprehension domain (continued)

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

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

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

AND

- Criterion 2: No studies showing a statistically significant or substantively important *positive* effect, or more studies showing statistically significant or substantively important *negative* effects than showing statistically significant or substantively important *positive* effects.

Met. No studies showed statistically significant or substantively important positive effects. In addition, no studies showed a statistically significant or substantively important negative effect.

Negative effects: Strong evidence of a negative effect with no overriding contrary evidence.

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

Not met. No studies showed statistically significant negative effects.

AND

- Criterion 2: No studies showing statistically significant or substantively important *positive* effects.

Met. No studies showed statistically significant or substantively important positive 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 [WWC Intervention Rating Scheme](#) for a complete description.

Appendix A5 Extent of evidence by domain

Outcome domain	Number of studies	Sample size		Extent of evidence ¹
		School units	Students	
Alphabets	1	8	71	Small
Fluency	1	8	71	Small
Comprehension	1	8	71	Small
General reading achievement	0	0	0	na

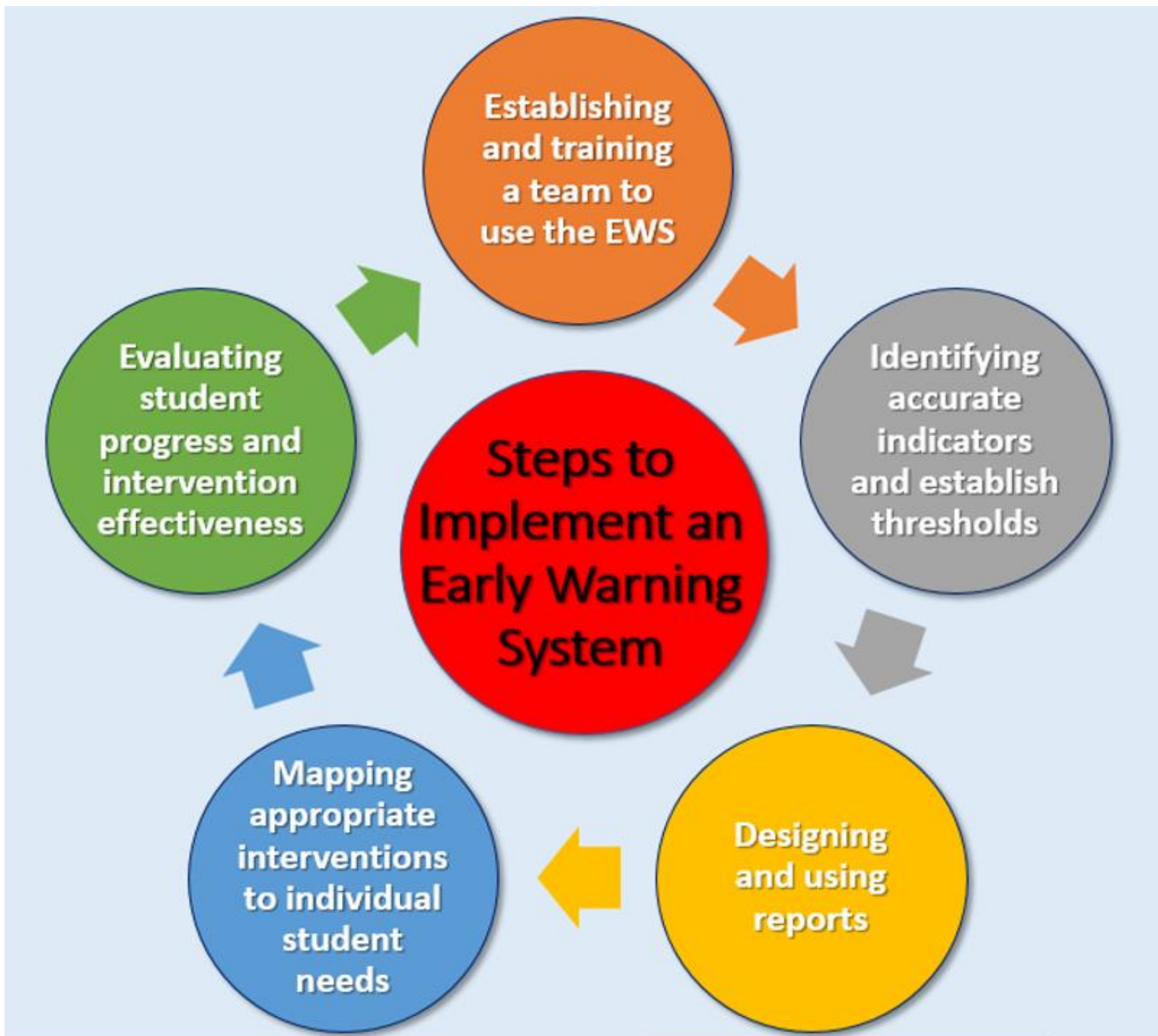
na = not applicable/not studied

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.”

Implementing & Monitoring an Early Warning System



Early Warning Systems (EWS) are an important strategy to monitor students who may be at-risk for dropping out. Early Warning Systems are based on established indicators that predict whether a student is off-track for graduation.



By tracking Early Warning Indicators, it is possible to identify when students are beginning to fall off-track, providing time to intervene and alter their trajectory to keep students on the pathway to graduation.

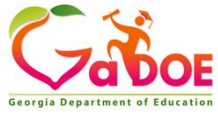


Early Warning System Implementing with Fidelity

Early Warning System Checklist



I. Establish and train a team using the EWS	Documented Evidence Provided	In Progress	Not Evident
a. Develop a team of broad stakeholders			
b. Provide professional development on EWS			
c. Assign roles and responsibilities			
d. Establish a monthly meeting schedule			
II. Identify accurate indicators			
a. Choose indicators			
b. Establish thresholds			
III. Design and use reports			
a. Identify at-risk students utilizing recommended timeframe			
b. Develop student level reports			
c. Develop school summary reports/ District reports			
IV. Map appropriate interventions to individual student needs			
a. Map school level interventions to indicators			
b. Assign interventions to students			
V. Evaluate student progress and intervention effectiveness.			
a. Examine student progress			
b. Examine intervention effectiveness			
c. Modify intervention plan as needed			
d. Document next steps			



Selecting and Implementing Evidence-base Interventions Requested Resources

- [School Completion Toolkit](#)
- [Check and Connect](#)
- [Self-Study Guide for Scheduling High School Interventions](#)
- [Structuring Out-of-School Time to Improve Academic Achievement](#)
- [Strategies for Scheduling](#)