

Assisting Students Struggling with Reading: Response to Intervention (RtI) and Multi-Tier Intervention in the Primary Grades



Recommendation 3. Provide intensive, systematic instruction on up to three foundational reading skills in small groups to students who score below the benchmark on universal screening. Typically, these groups meet between three and five times a week for 20 to 40 minutes (tier 2).

Tier 2 instruction should take place in small homogenous groups ranging from three to four students using curricula that address the major components of reading instruction (comprehension, fluency, phonemic awareness, phonics, and vocabulary). The areas of instruction are based on the results of students' scores on universal screening. Instruction should be systematic—building skills gradually and introducing skills first in isolation and then integrating them with other skills. Explicit instruction involves more teacher-student interaction, including frequent opportunities for student practice and comprehensible and specific feedback. Intensive instruction should occur three to five times per week for 20 to 40 minutes.

Level of evidence: Strong

The panel judged the evidence supporting this recommendation as *strong* based on 11 studies that met WWC standards or that met WWC standards with reser-

vations.⁴¹ These studies on supplemental instruction in reading support tier 2 intervention as a way to improve reading performance in decoding. Six studies showed positive effects on decoding,⁴² and four showed effects on both decoding and reading comprehension.⁴³ Six studies involved one-on-one instruction,⁴⁴ and the remainder used small groups ranging from two to five students. Given that effect sizes were not significantly higher for the one-on-one approach, small group work could be considered more practical for implementation.

Brief summary of evidence

The 11 studies that met WWC standards or that met WWC standards with reservations suggest that educators should emphasize the critical reading skills of phonemic awareness, decoding, reading comprehension, and fluency at appropriate grade levels. Two of five studies that measured phonemic awareness demonstrated significant effects.⁴⁵ Five of nine studies that measured decoding demonstrated significant effects, and students showed positive

41. Ebaugh (2000); Gunn, Biglan, Smolkowski, and Ary (2000); Mathes, Denton, Fletcher, Anthony, Francis, and Schatschneider (2005); Jenkins, Peyton, Sanders, and Vadasy (2004); Lennon and Slesinski (1999); Vaughn, Mathes, Linan-Thompson, Cirino, Carlson, Pollard-Durodola, Cardenas-Hagan, and Francis (2006); Vadasy, Sanders, and Peyton (2005); Ehri, Dreyer, Flugman, and Gross (2007); Gibbs (2001); McMaster, Fuchs, Fuchs, and Compton (2005); Vadasy, Jenkins, Antil, Wayne, and O'Connor (1997).

42. Ebaugh (2000); Gunn et al. (2000); Jenkins et al. (2004); Lennon and Slesinski (1999); Vadasy, Sanders, and Peyton (2005); Vaughn et al. (2006).

43. Gunn et al. (2000); Jenkins et al. (2004); Vadasy, Sanders, and Peyton (2005); Vaughn et al. (2006).

44. Gunn et al. (2000); McMaster et al. (2005); Vadasy et al. (1997); Vadasy, Sanders, and Peyton (2005); Jenkins et al. (2004); Gibbs (2001).

45. Ehri et al. (2007); Lennon and Slesinski (1999).

effects in five of seven studies⁴⁶ that measured reading comprehension. Only one study found significant effects in reading fluency. Vocabulary was the least examined outcome of the 11 studies, with only 1 study measuring and finding effects on vocabulary knowledge.⁴⁷

Since 7 of the 11 studies that met WWC standards or that met standards with reservations produced a significant effect on at least one reading outcome, and all seven studies used explicit instruction, we concluded that explicit instruction is an effective approach to use in tier 2 intervention.⁴⁸

How to carry out this recommendation

1. Use a curriculum that addresses the components of reading instruction (phonemic awareness, phonics, vocabulary, comprehension, and fluency) and relates to students' needs and developmental level.

Tier 2 intervention curricula are sometimes called *standard protocols*. Standard protocols are tutoring programs taught to all students scoring below benchmark.⁴⁹ These “one size fits all” programs address foundational skills and strategies that are essential to learning to read. The panel suggests that schools should use intervention programs to provide tier 2 instruction for all students scoring below benchmark for at least five weeks to discern which

students may need further intervention. After five weeks, some students may have caught up.

In choosing an intervention program for tier 2, administrators should look for programs—either commercially available intervention curricula, commercially developed supplemental curricula, or intervention programs—that are compatible with their school’s core reading program and that provide intensive small group instruction in three to four foundational skills. Ideally, the intervention program has demonstrated its effectiveness through independent evaluations using rigorous experimental or quasi-experimental designs.

The intervention curriculum should teach and build foundational skills to mastery and incorporate some complex reading skills. Specific components vary by grade level and reflect the changing developmental emphasis at different stages in reading. Table 4 highlights the foundational reading skills students should develop in kindergarten through grade 2. Skills validated by research are indicated by table notes. The remaining skill areas are considered critical by the panel.

The critical skill for *kindergarteners* to master is the ability to segment phonemes, a key indicator of future success or failure in reading.⁵⁰ Also important are letter-sound identification, the alphabetic principle (the recognition of the relationship between spoken sounds and letters), and beginning decoding skills (blending written letters into words). Students who can perform these tasks understand the phonemic elements in words leading to accurate and fluent decoding.⁵¹

In general, during the first semester, grade 1 students who participate in tier 2

46. Vadasy, Sanders, and Peyton (2005); Jenkins et al. (2004); Vaughn et al. (2006); Ehri et al. (2007).

47. Gunn et al. (2000).

48. Gunn et al. (2000); Jenkins et al. (2004); Ehri et al. (2007); Ebaugh (2000); Vadasy, Sanders, and Peyton (2005); Vaughn et al. (2006).

49. There are some obvious exceptions, such as students already identified as students with significant cognitive disabilities, students who already have Individualized Education Programs in reading or language involving a much more basic curriculum.

50. Lennon and Slesinski (1999).

51. Gunn et al. (2000).

Table 4. Foundational reading skills in grades K–2

Grade	Skill
Kindergarten	Phonemic awareness ^a Letter sounds ^b Listening comprehension Vocabulary development
Grade 1	Phonemic awareness ^c Phonics ^d Fluency (high frequency words) Fluency with connected text (second half of the year) ^e Vocabulary ^f Comprehension ^g
Grade 2	Phonics ^h Fluency with connected text Vocabulary ⁱ Comprehension

a. Lennon and Slesinski (1999).

b. Lennon and Slesinski (1999).

c. Ehri et al. (2007).

d. Gunn et al. (2000); Jenkins et al. (2004); Ehri et al. (2007); Mathes et al. (2005); Vadasy, Sanders, and Peyton (2005).

e. Ehri et al. (2007).

f. Gunn et al. (2000).

g. Jenkins et al. (2004); Ehri et al. (2007); Mathes et al. (2005); Vadasy, Sanders, and Peyton (2005); Vaughn et al. (2006).

h. Gunn et al. (2000).

i. Gunn et al. (2000).

Source: Authors' compilation based on information described in the text.

interventions will need instruction in phonics (decoding one and then two syllable words) and fluency. Since these are beginning readers, fluency instruction during the first semester is taught by first focusing on fluently and accurately reading short lists of high frequency words. During the second semester, as students move into reading connected text, interventions focusing on reading accurately, fluently, and with prosody (proper expression) should be added. Some grade 1 students will still need intensive and usually more accelerated instruction in phonemic awareness (blending and segmenting sounds) and basic phonics (letter sound correspondence) interventions to increase their understanding of the alphabetic principle.⁵²

Phonics interventions for grade 2 students concentrate on learning more difficult skills, such as digraphs (*oa* as in boat and *ch* as in child), diphthongs (*ew* as in stew, *oi* as in soil), and controlled R (*ar* as in car, *ur* as in fur). These interventions address structural analysis skills that focus on prefixes, suffixes, forming plurals, and adding *-ed* and *-ing* to form past and progressive tenses. Students also apply phonetic skills to words with more than one syllable. Fluency should continue to be emphasized.⁵³

Some intervention curricula will include what the panel believes are important activities: literal comprehension (questions whose answers are stated in the text), more sophisticated comprehension strategies (summarizing a portion of text), listening comprehension strategies, spelling, ex-

52. Gunn et al. (2000); McMaster et al. (2005); Jenkins et al. (2004); Vaughn et al. (2006); Ehri et al. (2007).

53. Gunn et al. (2000).

pressive writing, and read-alouds. Literal comprehension and some rudimentary comprehension instruction occur in many of the successful interventions, and so are recommended.⁵⁴ Other elements, such as inferential comprehension and vocabulary development, may be better developed with more heterogeneous groups during the reading language arts block. It is the opinion of the panel that an intervention curriculum that covers five to six skills per day may not provide the intensity necessary to improve reading achievement.

2. Implement this program three to five times a week, for approximately 20 to 40 minutes.

Tier 2 instruction should be implemented for 20 to 40 minutes, three to five times per week in small groups of three to four students. Student grade level and needs should determine the duration.

An intervention session can range from 20 to 30 minutes for kindergarten students to 40 to 50 minutes for grade 2 students, depending on student needs. Providing kindergarten students with 20 minutes of daily instruction has been demonstrated to have a positive impact on their acquisition of early reading skills, such as phonemic awareness and letter-sound correspondence.⁵⁵ As students move into grades 1 and 2, the time needed for interventions usually increases as the skills they need to catch up to their peers without reading difficulties broaden.

A small body of descriptive evidence suggests that the time spent on each area of instruction might be more important than the total instructional time. How time is spent and proportioned appears critical. For example, merely doubling instructional time—providing double doses of

the same intervention—is not effective.⁵⁶ But according to Harn, Linan-Thompson, and Roberts (2008), doubling instructional time while changing the percentage of time allotted to each instructional area in response to students' changing needs resulted in better outcomes on timed oral reading fluency and word reading measures for students.

3. Build skills gradually and provide a high level of teacher-student interaction with opportunities for practice and feedback.

Reading instruction should be systematic—building skills gradually and introducing skills first in isolation and then by integrating them with other skills to provide students practice and to build generalization.⁵⁷ Students should be given clear, corrective feedback, and cumulative review to ensure understanding and mastery. For example, in phonics, a critical area in grade 1 tier 2 interventions, a systematic curriculum might begin by introducing a few of the most frequently used consonants sounds (m, s, t, b) followed by a vowel, usually the short a. This allows students to integrate these newly learned sounds by blending sounds into words.

Reading instruction should also be explicit. Explicit instruction involves a high level of teacher-student interaction that includes frequent opportunities for students to practice the skill and clear, specific corrective feedback. It begins with overt and unambiguous explanations and models. An important feature of explicit instruction is making the thinking process public. Thinking aloud should occur during all instructional components of tier 2 interventions ranging from systematic skill building in phonics to teaching more

54. Vaughn et al. (2006); Gunn et al. (2000).

55. Gunn et al. (2000); Gunn, Smolkowski, Biglan, and Black (2002); Lennon and Slesinski (1999).

56. Wanzek and Vaughn (2007).

57. Gunn et al. (2002); Vadasy, Sanders, and Peyton (2005); Vaughn et al. (2006); Mathes et al. (2005); Jenkins et al. (2004); McMaster et al. (2005).

complex and intricate comprehension strategies (such as summarizing or making inferences). When thinking aloud, teachers should stop, reflect, and formulate an explanation of their thinking processes.

Roadblocks and suggested approaches

Roadblock 3.1. *Some teachers or reading specialists might worry about aligning the tier 2 intervention program with the core program.*

Suggested Approach. Since tier 2 instruction relies on foundational (and sometimes prerequisite) skills that are determined by the students' rate of progress, it is unlikely that the same skill will be addressed in the core reading instruction at the same time. Alignment is not as critical as ensuring that instruction is systematic and explicit and focuses on the high priority reading components.

Roadblock 3.2. *Finding an additional 15 to 50 minutes a day for additional reading instruction can be a daunting task.*

Suggested Approach. Schools should first determine who will provide the intervention. If the classroom teacher will provide the intervention, then small group instruction could occur when students are working independently at classroom learning centers. In grade 2 classrooms, where there is non-direct instructional time, intervention lessons can occur at times that do not conflict with other critical content areas, such as mathematics, particularly if a person other than the classroom teacher is providing the intervention. There may be situations in schools with reading blocks of two to two and a half hours where it is appropriate for students to work at learning stations or complete assignments while the classroom teacher is conducting tier 2 interventions, especially if tier 2 students are unable to complete these assignments.