

# Aligning Evidence-Based Practices in the What Works Clearinghouse Practice Guides With the Every Student Succeeds Act Tiers of Evidence

## A Step-by-Step Guide for Ohio Striving Readers Subgrant Applicants

This guide is intended for Ohio districts applying for 2018 Striving Readers subgrants. Before using this guide, it is expected that districts will have conducted a needs assessment and are ready to choose evidence-based practices that meet their needs based on the data.

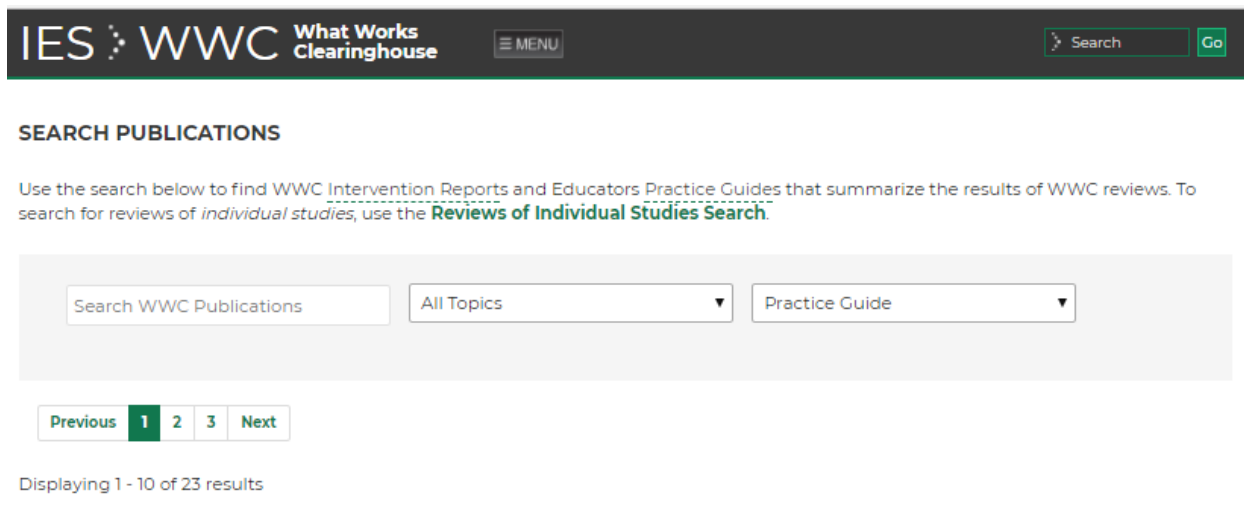
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## Step 1. Identify a What Works Clearinghouse Practice Guide

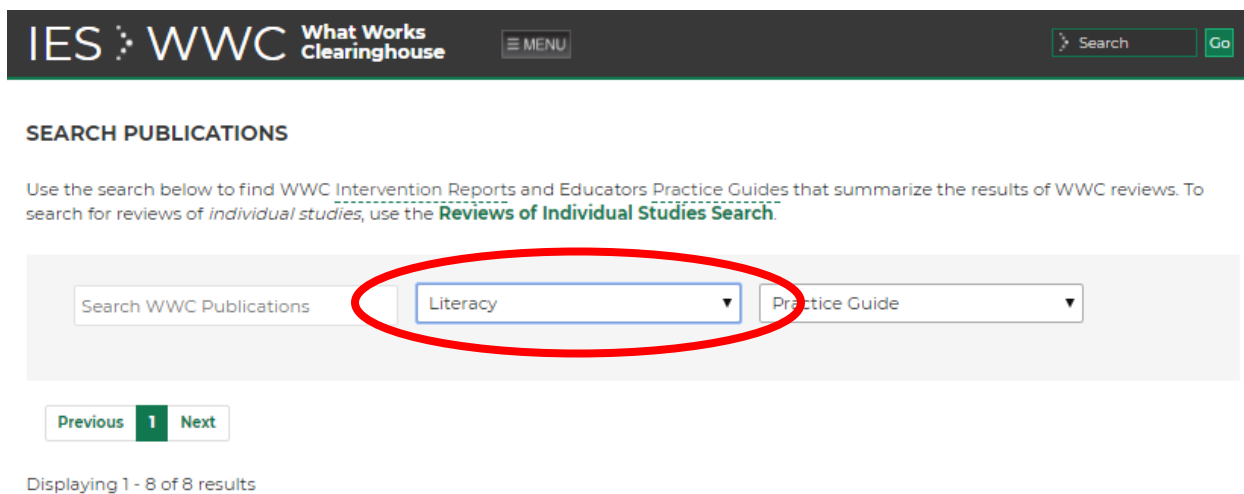
The What Works Clearinghouse (WWC) provides several practice guides that include recommended practices with strong, moderate, or minimal evidence. There are eight guides with a specific focus on literacy. For the purposes of Striving Readers subgrants, applicants can align these levels of evidence with the Every Student Succeeds Act (ESSA) evidence tiers by following a few extra steps.

Visit <https://ies.ed.gov/ncee/wwc/Publication#/ContentTypeId:3> to search for practice guides. This will bring you to the following search page:



The screenshot shows the top navigation bar with the IES WWC logo and 'What Works Clearinghouse' text. A search bar is located on the right with a 'Go' button. Below the navigation bar is the 'SEARCH PUBLICATIONS' section. A text box prompts the user to use the search below to find WWC Intervention Reports and Educators Practice Guides. Below this is a search interface with a text input field labeled 'Search WWC Publications', a dropdown menu currently set to 'All Topics', and another dropdown menu set to 'Practice Guide'. Below the search interface are navigation buttons: 'Previous', '1' (highlighted), '2', '3', and 'Next'. At the bottom, it says 'Displaying 1 - 10 of 23 results'.

Choose “Literacy” from the left-hand-side drop-down menu.



This screenshot is identical to the previous one, but the dropdown menu in the search interface is now set to 'Literacy'. A red oval is drawn around the 'Literacy' dropdown menu to highlight the selection. The navigation buttons now show 'Previous', '1' (highlighted), and 'Next'. At the bottom, it says 'Displaying 1 - 8 of 8 results'.

This will filter your results to the following practice guides that may be particularly useful for meeting your needs:

- [\*Assisting Students Struggling with Reading: Response to Intervention \(RtI\) and Multi-Tier Intervention in the Primary Grades\*](#)
- [\*Foundational Skills to Support Reading for Understanding in Kindergarten Through 3rd Grade\*](#)

- [Improving Adolescent Literacy: Effective Classroom and Intervention Practices](#)
- [Improving Reading Comprehension in Kindergarten Through 3rd Grade](#)
- [Teaching Academic Content and Literacy to English Learners in Elementary and Middle School](#)
- [Teaching Elementary School Students to Be Effective Writers](#)
- [Teaching Secondary Students to Write Effectively](#)
- [Using Student Achievement Data to Support Instructional Decision Making](#)

## Step 2. Search Recommendations

Clicking on a practice guide brings you to a page like this:

### Teaching Elementary School Students to Be Effective Writers



Released: June 2012  
PDF (4.9 MB)

Recommendations Details Panel

This practice guide provides four recommendations for improving elementary students' writing. Each recommendation includes implementation steps and solutions for common roadblocks. The recommendations also summarize and rate supporting evidence. This guide is geared toward teachers, literacy coaches, and other educators who want to improve the writing of their elementary students.

<p><b>1</b> Provide daily time for students to write.</p> <p><b>MINIMAL EVIDENCE</b></p> <p>▼ Show More</p>	<p><b>2</b> Teach students to use the writing process for a variety of purposes.</p> <p><b>STRONG EVIDENCE</b></p> <p>▼ Show More</p>	<p><b>3</b> Teach students to become fluent with handwriting, spelling, sentence construction, typing, and word processing.</p> <p><b>MODERATE EVIDENCE</b></p> <p>▼ Show More</p>	<p><b>4</b> Create an engaged community of writers.</p> <p><b>MINIMAL EVIDENCE</b></p> <p>▼ Show More</p>
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## Step 3. Investigate Recommendations for Alignment With Every Student Succeeds Act Evidence Tiers

The information that applicants will need to align the recommendations differs depending on the level of evidence cited by the practice guide. The following steps show what information is needed to align with the ESSA evidence tiers in the practice guides for moderate (Step 3.1) and strong (Step 3.2) evidence.

### Step 3.1. Alignment With Moderate Evidence

Practices with a moderate evidence base are based on studies that either lack in generalizability or causality. It also is possible to have studies supporting this recommendation that show countervailing negative evidence. Therefore, applicants will first need to provide evidence that there is **no countervailing negative evidence**.

### Step 3.1.1. Investigating whether there are negative outcomes associated with a recommendation

For each recommendation that has moderate evidence, read the summary of evidence section of the practice guide. First, click on the link for the full pdf file.





#### Teaching Elementary School Students to Be Effective Writers

Recommendations | Details | Panel

Released: June 2012  
PDF (4.9 MB)



This practice guide provides four recommendations for improving elementary students' writing. Each recommendation includes implementation steps and solutions for common roadblocks. The recommendations also summarize and rate supporting evidence. This guide is geared toward teachers, literacy coaches, and other educators who want to improve the writing of their elementary students.

<b>1</b> Provide daily time for students to write.  MINIMAL EVIDENCE <a href="#">Show More</a>	<b>2</b> Teach students to use the writing process for a variety of purposes.  STRONG EVIDENCE <a href="#">Show More</a>	<b>3</b> Teach students to become fluent with handwriting, spelling, sentence construction, typing, and word processing.  MODERATE EVIDENCE <a href="#">Show More</a>	<b>4</b> Create an engaged community of writers.  MINIMAL EVIDENCE <a href="#">Show More</a>
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Within the practice guides, each recommendation will have a summary of evidence, like this:

#### Recommendation 4 (continued)

##### Summary of evidence: Moderate Evidence

Twenty-two studies that examined the effectiveness of interventions with connected text meet WWC group design standards and include a relevant outcome (see Appendix D).<sup>117</sup> Although 18 studies showed positive effects on word reading, **oral reading accuracy, oral reading fluency**, and/or reading comprehension outcomes,<sup>118</sup> eight of these studies also reported no discernible effects on other outcomes in these areas.<sup>119</sup> In addition, three studies found no discernible effects for any outcome,<sup>120</sup> and one study found a negative effect for one outcome.<sup>121</sup> Because of this inconsistent pattern of positive effects, the panel and staff did not assign a strong evidence rating to this recommendation.

The 18 studies that found positive effects contributed to the moderate level of evidence;<sup>122</sup> the remainder of this paragraph focuses on those studies. Nine of these

studies had interventions that included all three components of Recommendation 4,<sup>123</sup> and the interventions in an additional five studies aligned with two components of Recommendation 4.<sup>124</sup> Fifteen studies meet WWC group design standards without reservations<sup>125</sup> The studies collectively included diverse students in kindergarten through grade 3; 11 studies examined students at risk for reading difficulties,<sup>126</sup> and the other seven studies examined general education students.<sup>127</sup> The interventions in 11 studies were delivered one-on-one,<sup>128</sup> while six studies examined interventions implemented with small groups of students,<sup>129</sup> and one intervention used a combination of small groups and whole-class instruction.<sup>130</sup> Sixteen studies occurred in the United States,<sup>131</sup> and two studies occurred in the United Kingdom.<sup>132</sup> Overall, the 18 studies related to Recommendation 4 found an inconsistent pattern of positive effects. Therefore, the panel and staff assigned a *moderate* level of evidence to Recommendation 4.

Applicants should read the summary of evidence to determine whether the studies supporting the recommendation showed any negative countervailing evidence. Each summary will list whether there were negative effects found from any of the studies. For example:

- In [\*Assisting Students Struggling with Reading: Response to Intervention \(RtI\) and Multi-Tier Intervention in the Primary Grades\*](#), Recommendation 1 (moderate evidence) was based on evidence from five correlational studies, which would fall under Tier 3, or promising evidence (p. 11).
- In [\*Foundational Skills to Support Reading for Understanding in Kindergarten Through 3rd Grade\*](#), Recommendation 2 (moderate evidence) had no countervailing negative effects (p. 18), and Recommendation 5 (moderate evidence) was based on studies with countervailing negative effects (pp. 34–35).
- In [\*Teaching Elementary School Students to Be Effective Writers\*](#), Recommendation 3 (moderate evidence) found mixed effects on outcomes (pp. 27–28).
- In [\*Teaching Academic Content and Literacy to English Learners in Elementary and Middle School\*](#), Recommendation 4 (moderate evidence) had no negative effects, but included some studies with no discernable evidence (p. 60).

If a practice is supported by studies with countervailing negative evidence (a negative effect on an outcome, where the control group’s outcomes are more positive than the treatment group), that outcome does not align with ESSA Tiers 1–3. If there is no countervailing negative evidence, applicants can move on to determining the sample size.

### Step 3.1.2. Determining large/multisite sample criteria

If there is no countervailing negative evidence, applicants then need to show whether the studies contributing to the ratings for the *outcomes* they are looking to improve meet the large/multisite sample criteria. This information can be found in Appendix D of the practice guides.

## Appendix D

### Rationale for Evidence Ratings<sup>97</sup>

The level of evidence is based on the findings of studies that examined the effectiveness of recommended practices and meet What Works Clearinghouse (WWC) group design standards. The studies were primarily identified through a keyword search of several databases. The search focused on studies published between 1995 and 2015 that examined practices for teaching writing to students in grades 6–12. This search was supplemented with additional studies recommended by the expert panel.

From here, applicants will need to identify the table that corresponds to their recommendation.

**Table D.5. Studies that contribute to the level of evidence for Recommendation 3**

Study Details					
Study Citation and Design <sup>269</sup>	Analytic Sample Size <sup>270</sup> and Population	Intervention Group (Dosage) <sup>271</sup>		Direct Effects: Outcome, Effect Size <sup>272</sup>	Generalization Effects: Outcome, Effect Size <sup>273</sup>
		Comparison Group <sup>274</sup>			
<b>Studies testing the effectiveness of handwriting interventions</b>					
<b>Berninger et al. (1997)</b> <i>RCT</i>	40 students in 1st grade who were at risk	visual cue and memory retrieval training small groups (3) (24 sessions, 20 minutes each) <sup>275</sup>	phonological awareness training	no eligible measures	<b>sentence structure, 0.89<sup>o</sup></b>
<b>Denton, Cope, and Moser (2006)</b> <i>RCT</i>	38 students in 1st through 4th grade who were at risk	therapeutic practice in addition to regular instruction <sup>276</sup> small groups (up to 3) (20 sessions, 30 minutes each)	regular classroom instruction	<u>Memory:</u> handwriting (mechanics), 0.17 (ns) <u>Dictated:</u> <b>handwriting (mechanics), 0.44 (ns)</b> <u>Copied:</u> handwriting (mechanics), 0.08 (ns)	no eligible measures
<b>Graham, Harris, and Fink (2010)</b> <i>RCT</i>	36 students in 1st grade who were at risk <sup>277</sup>	supplemental handwriting program in addition to regular handwriting instruction individual (27 sessions, 15 minutes each)	phonological awareness training in addition to regular handwriting instruction	no eligible measures	<u>Posttest:</u> overall writing quality, 0.04 (ns) <b>output, 1.29<sup>o</sup></b> <b>sentence structure, 0.62 (ns)</b> <u>Maintenance effects (6 months):</u> <b>sentence structure, 0.84<sup>o</sup></b>

For each outcome (for example, sentence structure), applicants can add up the analytic sample sizes in the second column. The **sample size should add up to 350 to meet the large sample size criteria.**

*Note: Most practice guides focusing on literacy do not distinguish between studies that meet WWC standards with and without reservations, which would be needed to determine whether a practice aligns with strong or moderate evidence under ESSA. If it is not possible to distinguish between these two WWC ratings, applicants should state that the practice meets **at least moderate evidence**, or Tier 2, under ESSA.*

For practice guides that do make this distinction, the table will be laid out similar to this:



**Table D.7. Studies providing evidence for Recommendation 4**

Study and design	Participant	Intervention condition as implemented in the study	Comparison condition as implemented in the study	Outcome domain and effect sizes	Related recommendation components
<b>Meets WWC Group Design Standards Without Reservations</b>					
<b>Begeny et al. (2010)<sup>a</sup></b> <i>Randomized controlled trial</i>	46 2nd-graders in the south-eastern United States	Tutors implemented the <i>Helping Early Literacy with Practice Strategies (HELPS)</i> program individually with students. Students completed repeated readings of passages three times and orally recounted the content of the passages. Tutors provided students with cues to read the passages with fluency and comprehension. The intervention involved 8- to 10-minute sessions 3 times a week for 3 months.	Teachers taught their regular lessons.	Word reading = 0.46 Oral reading fluency = 0.61 Reading comprehension = 0.75	1, 3
<b>Case et al. (2010)</b> <i>Randomized controlled trial</i>	30 at risk 1st-graders in a suburban school district in the Mid-Atlantic region of the United States	Graduate students implemented 24 scripted lessons for groups of 3 to 4 students. Each lesson included activities on phonics, sight-word recognition and vocabulary, and reading fluency and comprehension. The intervention involved 40-minute sessions 3 times a week for 11 weeks.	Teachers taught their regular lessons.	Word reading = 0.76	1, 2, 3
<b>Case et al. (2014)</b> <i>Randomized controlled trial</i>	123 at risk 1st-graders in a suburban school district in the Mid-Atlantic region of the United States	Tutors implemented 25 scripted lessons for groups of 2 to 4 students. Each lesson included activities on phonics, sight-word recognition and vocabulary, and reading fluency and comprehension. The intervention involved 40-minute sessions 3 times a week for approximately 12 weeks.	Teachers taught their regular lessons, which consisted of <i>Peer Assisted Learning Strategies</i> .	Word reading = 0.12 Oral reading fluency = 0.27	1, 2, 3

Studies that meet WWC standards without reservations (one criteria for strong evidence, or Tier 1, under ESSA) are listed first. To determine whether a practice meets strong evidence, all the studies that meet standards **without** reservations need to add up to a sample size of 350. So, there are three possible scenarios here:

1. Sample sizes for the outcome of interest do not add up to 350. In this case, the practice meets **promising evidence, or Tier 3, under ESSA**.
2. Sample sizes for studies that meet WWC standards without reservations do not add up to 350, but including sample sizes from the other studies (the ones that meet WWC standards with reservations) adds up to at least 350. In this case, the practice meets **moderate evidence, or Tier 2, under ESSA**.
3. Sample sizes for studies that meet WWC standards without reservations add up to at least 350. In this case, the practice meets **strong evidence, or Tier 1, under ESSA**.

### Step 3.2. Alignment With Strong Evidence

Recommendations with a strong evidence base in the WWC practice guides are supported by several studies that meet WWC standards with and without reservations, have been replicated by multiple studies, and have consistent positive effects with no countervailing negative evidence. Therefore, to align these recommendations with the ESSA tiers, applicants only need to investigate the sample size. This process is outlined in detail in step 3.1.2 above.

### Step 4. Context

Finally, applicants will need to align their populations with the students in the sample. Each practice guide provides this information in a different way, but can generally be found in the same tables in Appendix D where applicants determine sample size. Some examples include the following:

Study and design	Participants	Intervention condition as implemented in the study	Comparison condition as implemented in the study <sup>a</sup>	Outcome domain and effect size <sup>b</sup>	Related recommendation components
<b>Torgesen et al. (2006)<sup>a</sup></b> <i>Randomized controlled trial</i>	79 at-risk 3rd-graders near Pittsburgh, Pennsylvania <sup>b</sup>	Teachers implemented 140 lessons from the decoding strand of the <i>Corrective Reading</i> curriculum for groups of 3 students. The lessons focused on word identification and oral reading fluency. The intervention involved 55-minute sessions daily over 7 months.	Teachers taught their regular lessons.	Word reading = 0.22 <sup>c</sup>	1, 2, 3, 4, 5, 6

Study and design	Participants and targeted grade range	Setting	Intervention condition as implemented in the study	Comparison condition as implemented in the study	Outcome domain and effect size
<b>Kim et al. (2011)<sup>b</sup></b> <i>Randomized controlled trial</i>	2,721 6th- to 12th-grade students	15 secondary schools in Santa Ana Unified School District, California	Teachers received professional development through the <i>Pathway Project</i> on reading and writing strategy instruction. They modeled the strategies in class and gave students time to practice and reflect on their use of writing strategies. They used an on-demand writing assessment to gauge student needs and progress. The intervention was implemented over 2 school years, with effects measured	Teachers received professional development that emphasized interpreting test data, using test data to improve state standardized test scores, and	overall writing quality = 0.22 <sup>ac</sup>

Study Details					
Brief Citation	Study Design	Study Size and Population	Comprehension Outcome and Effect Size <sup>a</sup>	Alignment to Recommendation <sup>b</sup>	Text Type
<b>Positive Comprehension Effect</b>					
<b>Baumann and Bergeron (1993)<sup>c</sup></b>	RCT	74 students; 1st grade, Midwest, rural	Author-designed outcomes: Central story elements: +1.40, ns Story map components: +0.78, ns Central story components: +0.82, ns Delayed posttest: +0.75, ns	✓✓	Narrative

Applicants will need to show that the characteristics of the samples, as provided by the practice guides, align with their populations of students.