

# Teaching Academic Content and Literacy to English Learners in Elementary and Middle School

## Practice Guide Summary

## What Works Clearinghouse™

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Teachers of science, history, mathematics, writing, or other content areas may find it challenging to build the English language and literacy skills of English learners in their classrooms while also teaching content-area material. However, students with varying levels of English proficiency, including students currently or formerly classified as English learners and students whose first language is English, can benefit when teachers provide explicit instruction and other learning opportunities to use and practice the English language.

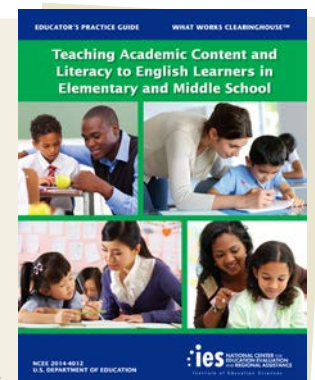
The *Teaching Academic Content and Literacy to English Learners in Elementary and Middle School* practice guide was developed by the **What Works Clearinghouse™** (WWC) in conjunction with an expert panel to support teachers in providing language instruction. The practice guide provides teachers with guidelines and examples of ways to systematically and explicitly build students' English language proficiency and literacy by providing English learners more opportunities to speak, listen to, and write about academic topics ranging from literature to science to history in daily classroom instruction.

The practice guide includes recommendations for teaching English learners in K-8. For purposes of this summary, both students who are officially designated as limited English proficient and those students “redesignated” as fluent in English are considered English learners.

### Recommendations for elementary and middle school educators:

1. Teach a set of academic vocabulary words intensively across several days using a variety of instructional activities.
2. Integrate oral and written English language instruction into content-area teaching.
3. Provide regular, structured opportunities to develop written language skills.
4. Provide small-group instructional intervention to students struggling in areas of literacy and English language development.

For a full description of the recommendations and more implementation tips, [download your free copy of the guide](#).



This summary introduces the recommendations and supporting evidence described in the full practice guide. The recommendations in this practice guide summary apply to any teacher or instructor who works with students who have varying levels of English proficiency.

## Recommendation 1. Teach a set of academic vocabulary words intensively across several days using a variety of instructional activities.

State and district standards for English Language Arts emphasize teaching students academic language and, in particular, academic vocabulary. Academic vocabulary represents words that are used primarily in academic disciplines. Teachers can introduce and teach academic vocabulary along with content material in science, history, mathematics, and writing to English learners during regular classroom instruction.

Many English learners lack opportunities to develop the academic vocabulary necessary to support reading, writing, and discussion of the academic topics covered in school. This can often lead to struggles with complex texts that are loaded with abstract content and academic vocabulary. Instructional activities that are focused on a small set of words over several lessons and that provide various opportunities for students to use the words in writing, speaking, and listening, can help students learn and correctly use grade-level general academic and domain-specific vocabulary.

### How do academic language and academic vocabulary differ?

**Academic language** skills include: articulating ideas beyond immediate context (inferential language); clearly relating a series of events, both fictional and nonfictional (narrative language); and comprehending and using a wide range of academic vocabulary and grammatical structures, such as pronoun references.

**Academic vocabulary**, one skill associated with academic language, represents words that are used primarily in academic disciplines. The *Teaching Academic Content and Literacy to English Learners in Elementary and Middle School* practice guide provides teachers with guidelines and examples of ways to systematically and explicitly build students' academic vocabulary during content instruction in history, math, science, and other disciplines.

#### Grades included in the evidence base

K 1 2 3 4 5 6 7 8

Level of evidence

Strong

Study settings

Integrated instruction with English learners and proficient English speakers

Percent of students receiving English learner supports in the studies

At least 60 percent

### How to carry out the recommendation

1. **Choose a brief, engaging piece of informational text that includes academic vocabulary as a platform for intensive academic vocabulary instruction.** Use a grade-level text and scaffold instruction so English learners can access the language

of the text and understand challenging new words, even if some students might not be able to independently comprehend such material. Read the text aloud at the start of the lesson, and then facilitate discussion about the words in the text.

## Recommendation 1

Choose an informational text that:

- Is brief, interesting, and engaging for the students.
- Contains a variety of target academic words to focus on.
- Connects to a given unit of study and builds the students' knowledge of a topic.
- Provides sufficient detail and examples for students to be able to comprehend the passage.
- Contains ideas that can be discussed from a variety of perspectives.

- 2. Choose a small set of academic vocabulary for in-depth instruction.** Choose about five to eight words from the selected text, and focus on these words over the course of several lessons. This will provide students enough time to learn concepts and nuances associated with a given word, and will allow for ample time to practice words in writing, speaking, and listening activities.

### When choosing words to teach, look for:

- Words central to understanding the text.
- Words frequently used in the text.
- Words that might appear in other content areas.
- Words with more than one meaning, such as words that have multiple related meanings across a variety of domains.
- Words with affixes (prefixes or suffixes), so students can learn how word parts change a root word's meaning or grammatical form.
- Words with cross-language potential or cognate relationships, as these can help students build their confidence in learning new words in English.

- 3. Teach academic vocabulary in depth using multiple modalities (writing, speaking, listening).** When students have frequent opportunities to experience new vocabulary in multiple ways, these new vocabulary words become an integral part of students' listening, speaking, reading, and writing.

Teach student-friendly definitions that provide accessible descriptions of the target academic words and can be used to help comprehend the instructional text. Explicitly clarify and reinforce these definitions using examples, non-examples, and concrete representations.

The goal of instruction is for students to understand the connotation of the words (i.e., how a word is typically used), which goes beyond memorizing definitions.

- 4. Teach word-learning strategies to help students independently figure out the meaning of words.** Prepare students to independently figure out the meaning of unknown words by teaching context clues, word parts (morphology), and cognates.

Students can use **context clues** from surrounding text they understand to develop their own workable definitions. For example, students can figure out the meaning of the word *environment* while using context clues from the rest of the sentence (e.g., *a natural environment for a gorilla has grass and trees, while an unnatural environment is a cramped cement area*).

Students may also benefit from using **morphology** to focus on prefixes, suffixes, and root words to find pattern in new, unfamiliar words (e.g., the word *unreachable* can be broken down into parts, as seen in the example below).

**Cognates**, which are words that share a common origin and sound similar in two or more languages (e.g., *electricidad* and *electricity*), can also help students figure out word meanings by linking English words to their primary languages. Scaffold instruction by modeling each step using a think-aloud that makes the thinking process public.

## Recommendation 1

Ms. Juarez writes the word *unreachable* on the board. She tells students that the first thing she is going to do is to see whether she can find a root word. She breaks the word into three parts by drawing lines: un/reach/able. She illustrates that after removing those affixes they are left with the root word reach. She defines reach. She then calls on students to explain the meaning of the prefix un- (i.e., not) and the suffix -able (i.e., being capable of doing something) that they have already learned. Finally, she integrates the meaning of the root word and the affixes. She tells her students, “Reach means moving your hand or arm to try to touch or grab something. Able means you can do something. Then, the meaning of reachable is that you can touch or grab something. When we add the prefix un- which means not, it changes the meaning of the word to not being able to touch or grab something. So, if I were trying to change a light bulb on the ceiling without a ladder, it would be unreachable.”

Ms. Juarez continues by applying the procedure to other meanings of reach (e.g., reaching a destination, reaching someone, reaching an agreement). In addition to teaching the meaning of the academic word unreachable using the word parts, Ms. Juarez discusses the word’s morphological forms (i.e., reach, reachable, unreachable) in terms of their syntactical structure (i.e., noun, verb, adjective, adverb). The students then record the morphological forms according to their part of speech and function in sentences in their graphic organizer (presented below).

<b>VERBS</b> (action)	<b>NOUNS</b> (person, place, thing, or idea)	<b>ADJECTIVES</b> (words to describe nouns)	<b>ADVERBS</b> (words to describe actions)
Investigate	Investigati <u>o</u> n Investigato <u>r</u>	Investigati <u>ve</u>	
Environment	Environment Environmen <u>t</u> alism	Environmen <u>t</u> al Environmen <u>t</u> ally	
Pursue	Pursuit	Pursuan <u>t</u>	
Opt	Option	Option <u>a</u> l	Option <u>a</u> lly
<b>Reach</b>	<b>Reach</b>	<b>Unreachable</b> <b>Reachable</b>	

## Recommendation 2. Integrate oral and written English language instruction into content-area teaching.

Increased expectations for students’ oral and written academic communications pose challenges for English learners, who are learning a second language and complex grade-level content simultaneously.

This recommendation outlines an approach to providing structured opportunities for engaging students in academic discussions about the content, using instructional tools strategically to clarify and anchor the content, teaching explicitly academic vocabulary that is central for understanding the content, and providing writing opportunities to reinforce learning.

### Tip for Implementation

Graphic organizers can help scaffold learning by enabling students to organize material around a common text structure. Teachers can scaffold instruction by explicitly demonstrating how to complete a graphic organizer and by completing parts of the graphic organizer in advance, allowing students to finish the remaining portions based on the material they read or viewed.

#### Grades included in the evidence base

K 1 2 3 4 5 6 7 8

Level of evidence

Strong

Study settings

Integrated instruction with English learners and proficient English speakers

Percent of students receiving English learner supports in the studies

At least 60 percent

### How to carry out the recommendation

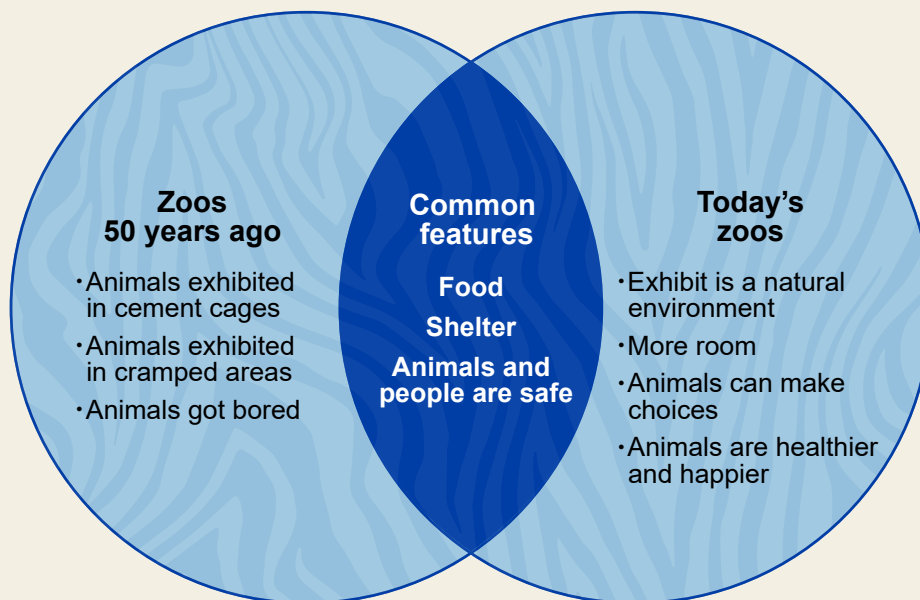
1. **Strategically use instructional tools—such as short videos, visuals, and graphic organizers—to anchor instruction and help students make sense of content.** Use short video clips (less than five minutes long) and visuals—such as pictures, experiments, demonstrations, and 3-D models—to anchor instruction in a common shared experience and to stimulate small-group and paired discussions among students. Students can use graphic organizers to organize material around a common text structure, such as temporal sequence or compare-contrast.
2. **Explicitly teach the content-specific academic vocabulary, as well as the general academic vocabulary that supports it, during content-area instruction.** To make content-area text accessible, identify the general academic terms that are critical for understanding specific content words. During content-area instruction, consider prioritizing accurate, and increasingly complex, technical definitions, and supplementing with visuals and examples from the text whenever feasible.

**3. Provide daily opportunities for students to talk about content in pairs or small groups.** Discussions not only allow students to practice the language, but also allow teachers to check on students' understanding and application. In addition, allow students, especially those at the emergent English proficiency level, to discuss English language texts in their primary languages, as this flexibility might promote comprehension by giving students a chance to articulate and clarify ideas before trying to express them in English. Group students based on heterogeneous levels of language proficiency, so students with stronger English skills

can model the language for less proficient students. Discussion opportunities do not need to be long but should occur multiple times daily. As necessary, scaffold instruction during these discussions by providing students who are at lower levels of English language proficiency with questions tailored to their current language levels and prompts to help them begin their responses.

**4. Provide writing opportunities to extend student learning and understanding of the content material.** Plan writing activities that will allow students to apply their newly learned concepts and skills.

### Graphic organizer example



This is a sample of a Venn diagram, one type of graphic organizer that is used to compare. Here it is being completed by students to compare zoos 50 years ago to today's zoos.



## Recommendation 3. Provide regular, structured opportunities to develop written language skills.

As they move up through the grades, English learners increasingly need to respond to informational texts through writing and, in doing so, generate well-organized essays that are progressively longer and more complex. This recommendation provides concrete guidance on how to accomplish this goal for English learners.

### Tip for Implementation

Scaffold learning by consistently using a set of instructional routines that support students as they generate and organize their ideas in preparation for writing tasks. Routines should guide students through the writing process, starting with developing notes or graphic organizers, then writing complete sentences and individual paragraphs, and ultimately creating a full composition that includes revisions from earlier drafts.

Grades included in the evidence base	K	1	2	3	4	5	6	7	8
Level of evidence	Minimal								
Study settings	Integrated instruction with English learners and proficient English speakers								
Percent of students receiving English learner supports in the studies	100 percent								

### How to carry out the recommendation

- 1. Provide writing assignments that are anchored in content and focused on developing academic language as well as writing skills.** One great way to provide writing assignments that are related to classwork is by connecting the assignment to the unit or theme from the text that is being read and discussed in history, science, or literature. To promote development of language skills, ensure that writing assignments' objectives are related to developing specific English language skills or learning target academic vocabulary.
- 2. For all writing assignments, provide language-based supports to facilitate students' entry into, and continued development of, writing.** Language-based supports, such as graphic organizers, help students get started on writing assignments and use conventions of academic language. Language-based supports help students organize their ideas and arguments before completing a writing assignment. See the page below for some examples of sentence starts that can help students begin analytic writing based on texts.

**Sentence start examples**

**Tapping Prior Knowledge**

This relates to...  
This reminds me of...

**Making Predictions**

I think...  
If \_\_\_\_\_, then...

**Summarizing**

The basic gist is...  
The key information is...

**Adopting an Alignment**

The character I most identify with is...  
I really got into the story when...  
I can relate to this author because...

**Forming Interpretations**

What this means to me is...  
I think this represents...  
The idea I am getting is...

**Revising Meaning**

At first I thought \_\_\_\_\_, but now I think ...  
My latest thought about this is...

**Analyzing the Author’s Craft**

I like how the author uses \_\_\_\_\_ to show...  
A golden line for me is...  
This word/phrase stands out for me because...

**Reflecting and Relating**

So the big idea is...  
A conclusion I am drawing is...  
This relates to my life because...

**Evaluating**

I like/don’t like \_\_\_\_\_ because...  
The most important message is \_\_\_\_\_ because...

3. **Use small groups or pairs as ways for students to work and talk together on varied aspects of writing.** Students can collaborate (in pairs or groups of three to five) to brainstorm, organize ideas, identify key ideas and supporting evidence from text, and provide revisions and feedback. Student collaboration and dialogue can focus on many aspects of written language development—from working on spelling and sentence structure, to quick-writes targeting vocabulary acquisition, to long-term research projects.
4. **Assess students’ writing periodically to identify instructional needs and provide positive, constructive feedback in response.** Regular use of formative assessments, including students’ writing

samples, can provide insight into the challenges that are common to many students, such as appropriate punctuation, spelling, capitalization, or sentence construction. Provide specific, constructive feedback rooted in the lesson’s instructional objective in written and oral language, and offer further opportunities for practice. For example, if the instructional target is subject-predicate agreement, give students feedback only on that aspect, not on capitalization, spelling, or organization. The panel recommends assessing students periodically using a formal writing rubric, preferably aligned to state or district standards.



## Recommendation 4. Provide small-group instructional intervention to students struggling in areas of literacy and English language development.

Some students require literacy and/or English language development support above and beyond what typical classroom instruction provides. Use systems (such as Response to Intervention and others) that emphasize early intervention and

high-quality small-group instruction to support English learners. Teacher-directed instruction with ample scaffolds that make learning easier should be provided daily, along with plenty of opportunities to practice what is being learned.

Grades included in the evidence base	K 1 2 3 4 5 6 7 8
Level of evidence	Moderate
Study settings	Integrated instruction with English learners and proficient English speakers
Percent of students receiving English learner supports in the studies	At least 50 percent

### How to carry out the recommendation

- 1. Use available assessment information to identify students who demonstrate persistent struggles with aspects of language and literacy development.** Use measures, such as standardized tests, district benchmark tests, or English language assessments, to identify students in need of additional support. There are instruments available that can be used to assess oral language and reading and listening comprehension. Also consider information from formative assessments and informal reading assessments when making decisions about what support students need.
- 2. Design the content of small-group instruction to target students' identified needs.** In general, struggling English learners often fit into at least two distinct profiles—those who struggle with foundational reading skills and those who have adequate foundational reading skills but struggle with comprehension of grade-level texts. This first group of students will need interventions devoted to decoding and accurate fluent reading of connected text. However, many of the students in the first group will likely also need instruction in English language development and comprehension strategies. Older students

who struggle with comprehension of grade-level text may also have challenges with fluency, particularly at the passage level. Interventions for these students will require a different mixture of instructional content. These interventions should include little or no emphasis on foundational decoding skills but substantial emphasis on comprehension strategies, listening comprehension, and vocabulary.

- 3. Provide additional instruction to students struggling with language and literacy in small groups consisting of three to five students.** When creating these small groups, consider whether it would be most beneficial to group students with similar proficiency levels or with varying proficiency levels. Small homogenous groups are useful when focusing on foundational skills, such as phonemic awareness, decoding, fluent reading of connected text, or select areas of English language development, whereas heterogenous groups can be beneficial during instruction on writing, oral language, and reading comprehension, since students can benefit from hearing opinions or oral language expressions from students of more advanced proficiency levels. Monitor progress of students in these groups at least twice a month, and regroup students as needed based on their progress. These activities should be brief (4-5 minutes each).
- 4. For students who struggle with basic foundational reading skills, spend time not only on these skills but also on listening and reading comprehension strategies and vocabulary development.** Use small-group instructional time to emphasize vocabulary and address basic

foundational skills. Whenever possible, plan instructional activities to address both literacy and language needs simultaneously. Because the goal is to teach language skills in addition to vocabulary, open up a meaningful dialogue with students by providing open-ended prompts that require students to explain their answers in English. See some sample vocabulary prompts on the next page.

- 5. Provide scaffolded instruction that includes frequent opportunities for students to practice and review newly learned skills and concepts in various contexts over several lessons to ensure retention.** Break a task into smaller, manageable parts when teaching complex tasks. This way, students will have limited information to process and will be able to do so quickly, and with a high degree of accuracy. Teach students in an explicit, systematic manner, regularly modeling and using think-alouds, to depict how to complete each instructional task. Initially, teachers may model and provide think-alouds often to help students, but over time the goal is to provide them less often, allowing students more opportunities to think aloud their reasoning independently. Conduct frequent checks for student understanding and provide immediate corrective feedback if students are having difficulty with a task or are making errors. Regularly review previously taught material and provide students with repeated practice opportunities.

## Summary of Evidence by Recommendation

	<b>Recommendation 1</b> <i>Teach a set of academic vocabulary words intensively across several days using a variety of instructional activities</i>	<b>Recommendation 2</b> <i>Integrate oral and written English language instruction into content-area teaching</i>	<b>Recommendation 3</b> <i>Provide regular, structured opportunities to develop written language skills</i>	<b>Recommendation 4</b> <i>Provide small-group instructional intervention to students struggling in areas of literacy and English language development</i>
<b>Number of Studies</b>	6	5	2	6
<b>Level of Evidence</b>	Strong	Strong	Minimal	Moderate
<b>Results by Outcome Domain</b>				
Content acquisition	x	+	x	x
English language development	+	x	x	0
Reading	0	x	0	+
Vocabulary	+	x	x	0
Writing	x	x	0	x

+ = of studies reporting effects in this outcome domain, (1) at least half reported at least one positive effect that either has an effect size greater than 0.25 standard deviations or is statistically significant at  $p < .10$  and (2) none reported negative effects that were statistically significant  
 0 = more than half of the studies reporting effects in this outcome domain reported only effects that are both (1) not significant at  $p < .10$  and (2) have effect sizes between -0.25 and 0.25 standard deviations  
 x = no studies meeting WWC standards evaluated the impacts of practices described in the recommendation on outcomes in this domain

**For more practical tips and useful classroom examples, download a copy of the *Teaching Academic Content and Literacy to English Learners in Elementary and Middle School* practice guide at <https://ies.ed.gov/ncee/wwc/PracticeGuide/19>.**

The Institute of Education Sciences publishes practice guides in education to provide educators with the best available evidence and expertise on current challenges in education. The What Works Clearinghouse™ (WWC) develops practice guides in conjunction with an expert panel, combining the panel’s expertise with the findings of existing rigorous research to produce specific recommendations for addressing these challenges. The expert panel for this guide included Esther Geva, Michael J. Kieffer, Nonie Lesaux, Sylvia Linan-Thompson, Joan Morris, C. Patrick Proctor, Randi Russell, and Scott Baker. See Appendix A in the practice guide for a full description of the series.

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