Using Read-Alouds to Help Struggling Readers Access and Comprehend Complex, Informational Text

Lana Edwards Santoro, Scott K. Baker, Hank Fien, Jean Louise M. Smith, and David J. Chard

Mr. Alexander's students will be starting a science unit in their firstgrade general education class on insects (known in first-grade playground nomenclature as "bugs"). To help his students prepare for the unit, Mr. Alexander selects an informational text from the core reading program's booklist to help preteach vocabulary and familiarize students with key concepts they will encounter during the unit. Mr. Alexander knows the text might be difficult for many of his students to read and understand, and he isn't highly confident about how to use complex, informational text with struggling readers. He does know, however, that using the informational text will provide valuable exposure to content and comprehension strategy practice for his students. By selecting this text from the core reading program's booklist, he aligns his instruction with the content his students will encounter in the general education classroom.

During the small-group instruction, as anticipated, many students simply do not have the reading skills, vocabulary, and background knowledge to understand what they are reading. Mr. Alexander finds himself backtracking and searching haphazardly for ways to fill in knowledge gaps. His explanations

are unfocused, students start to drift, and it soon feels like a waste of valuable instructional time. To him, there's so much interesting information about bugs, but Mr. Alexander has a challenging time sequencing instruction so his students understand the most important things first. Mr. Alexander wants to use the text to help his students make inferences about the text's key ideas. Without a system for using specific comprehension strategies, however, students flounder inside the text's complex structure, and Mr. Alexander sees their interest and motivation fade. Like many other special education teachers, Mr. Alexander wants to use complex, informational text with his students, but he's just not sure how to make it work.

The use of informational texts in the elementary grades provides a context for helping students develop content understanding and domain knowledge across a wide range of subject matter. Reading informational text also provides students with the language of thought, foundational vocabulary that can be connected to other words, and technical content or subject-area understanding that frames how readers see themselves and the world (Pinker, 2007). When reading an informational book about mammals, for example, students

encounter words like *nocturnal, migrate, hibernate, and species*. Informational text also introduces students to the worlds of famous people, scientific exploration, events in history, and travel.

Reading informational text provides students with the language of thought, foundational vocabulary that can be connected to other words, and technical content or subject-area understanding that frames how readers see themselves and the world.

Fascinating and educationally important words and worlds are found in informational text, but for students who struggle with reading or have a learning disability, informational text is often extremely challenging to access because of their limited vocabulary knowledge and conceptual understanding of a particular topic (Nation, 2007). Informational text can often be complex in structure, with a higher frequency of technical vocabulary, complex sentence structure, and visual displays of



information (Duke & Billman, 2009). Unlike narrative text, which typically follows a text structure based on unifying story structure and grammar (i.e., character, plot, setting, theme), informational text includes many different structures, including literacy nonfiction (autobiographies, biographies, memoirs, historical fiction); accounts based on history, science, technical, and economic perspectives; essays about art or literature; expositions; and speeches. For example, in second grade, students may read an informational text on ancient Greek civilization, insects, Westward Expansion, immigration, or the U.S. Civil War (Editors, 2010-2011). Perhaps most challenging for a struggling reader is that informational text requires the simultaneous orchestration of multiple reading comprehension strategies (Duke, Bennett-Armistead, & Roberts, 2003).

The Common Core State Standards (CCSS; National Governors Association Center for Best Practices & Council of Chief State School Officers, 2010) prominently emphasize the use of informational text, even in the early grades, precisely because the texts are complex. Active engagement with complex texts holds the key for student growth in vocabulary, language, knowledge acquisition, and thinkingthat is, in areas increasingly referred to as deep comprehension. Deep comprehension is an intentional

interaction between the reader and text to extract or construct meaning (National Reading Panel, 2000). As Mr. Alexander's experience illustrates, however, informational text can be very tough to use with students who struggle with reading because the content and difficult structure requires the intentional application of many comprehension strategies and an active monitoring of understanding, or "thinking about thinking" (Duke & Billman, 2009).

To manage instructional obstacles posed by complex, informational text, special education teachers can use read-alouds to provide a context for engaging, motivating topics and provide visible mental models of the comprehension process for elementarygrade students who struggle with reading or those identified with a learning disability (Baker et al., 2013; Fien et al., 2011; Santoro et al., 2014; Santoro, Chard, Howard, & Baker, 2008). In a study by Fien and colleagues (2011), read-alouds were structured with before-, during-, and after-reading comprehension instruction to help students engage with complex, challenging texts that they could not manage successfully on their own because they had not yet developed the necessary reading skills (Cummins & Stallmeyer-Gerard, 2011; Smolkin & Donovan, 2003). The read-alouds used by Fien et al. included the integration of highly purposeful and explicit comprehension instruction within the

context of the read-aloud experience, and teacher think-alouds were used to help frame the comprehension process. To help students comprehend informational text, Fien et al. used a "What Do I Think I Know?-What Do I Want to Learn?-What Did I Learn?" (K-W-L) conceptual framework (Klingner, Vaughn, & Boardman, 2015; Ogle, 1986).

Active engagement with complex texts holds the key for student growth in vocabulary, language, knowledge acquisition, and thinking.

Specifically, the Fien et al. (2011) study employed structured read-alouds with teacher-read text and integrated explicit comprehension instruction to evaluate the impact of a small-group read-aloud intervention on the vocabulary and comprehension of first-grade students identified with low language and low vocabulary skills. For the study, 102 first-grade students scoring below the 50th percentile on relational vocabulary were blocked by classroom, matched according to vocabulary score, and randomly assigned within 18 participating classrooms to condition. Students with identified disabilities were included in the sample; 18.5% were eligible for special education services. All students participated in the whole-class Read Aloud Curriculum (Baker et al., 2013). Students in the intervention group received small-group instruction (Read Aloud-Small Group) for 20 minutes two times per week for 8 weeks in addition to the whole-class Read Aloud instruction (Read Aloud-Whole Group). The small-group instruction included additional read-aloud activities and opportunities to preview, review, and enhance vocabulary and content aligned with the whole-class Read Aloud Curriculum. The no-treatment control group did not receive any additional small-group instruction. Therefore, groups participating in the study included students in the intervention

group, who received Read Aloud-Whole Group and Read Aloud-Small Group, and students in the comparison group, who received only Read Aloud-Whole Group. Fien et al. noted that the use of a no-treatment control group was important to determine the optimal effect of the use of read-alouds as an intervention strategy before including other instructional comparisons in future research. It should be noted that a subsequent study by Fien et al. (2016) on the use of read-alouds included a control group. While students in the intervention group received small-group read-aloud instruction, students in the control group had opportunities to listen to the same read-aloud texts used by the intervention group at listening centers and to complete content-related activity sheets.

Results from both of the Fien et al. (2011, 2016) studies indicated that students who received small-group instruction reliably outperformed their controls on vocabulary assessments and expository retells (with effect sizes of .57 to .66 reported in Fien et al., 2011). The results provide promising support that small-group read-alouds appear to enhance the vocabulary knowledge and expository retelling of students identified with low vocabulary and language skills. These findings are in the context of classrooms where students were already receiving high-quality, whole-class-readaloud instruction that incorporated direct and explicit vocabulary and comprehension strategies (Baker et al., 2013). In other words, the small-group intervention effect on the increased vocabulary and expository retells of students with low language and vocabulary skills was an added value above and beyond the benefit of whole-class instruction alone. Teachers can use read-alouds to promote students' interactions with complex, informational texts that are meaningful, conversation based, and comprehension and vocabulary building.

Instructional Framework for Read-Alouds

The read-alouds used by Fien et al. (2011, 2016) includes several

instructional features that teachers can use to help special education students build comprehension and vocabulary (Table 1). The first instructional feature emphasizes the importance of preselecting read-aloud texts and thinking about how content is structured across the curriculum. The second instructional feature integrates highly purposeful and explicit comprehension instruction within the context of the read-aloud experience. Fien et al. (2011) used explicit comprehension instruction by deliberately planning read-alouds around the use of a K-W-L chart that the teacher completed before, during, and after read-alouds. The K-W-L helped students ask and answer questions, identify key ideas and details, and summarize the text after readingcomprehension strategies that are essential for students with learning disabilities (Klingner et al., 2015). The use of text-based discourse and vocabulary instruction was also explicit. Finally, read-aloud instruction was language based. Teachers read texts aloud to students and paused strategically to highlight vocabulary, model comprehension strategies, and discuss content with students. Textbased discussions were scaffolded through the use of teacher models and prompts. Expressive oral language and vocabulary (versus reading vocabulary) was also emphasized. Language-based instruction is particularly important for students with learning disabilities who have oral language difficulties, including listening and reading comprehension problems in addition to the worddecoding, word-reading, and spelling problems that affect their learning to read and write (Berninger & Wolf, 2009; Scott, 2004).

Identify Multiple Texts Across the Curriculum

The CCSS emphasizes the use of informational texts representing a range of topics, quality, complexity, and type (e.g., literacy nonfiction, like autobiographies, memoirs, and historical fiction; historical, scientific, technical, and economic accounts; essays about art or literature;

exposition; speeches). The complexity of content and structure in informational texts varies extensively from text to text and across subject matter. Texts, therefore, can be strategically sequenced across units, or a curriculum, to help students use evidence contained in one text to reinforce understanding and build deeper content knowledge when interacting with other texts (Varelas & Pappas, 2006). For example, in an informational text on reptiles, students may learn that reptiles have scales that cover their bodies. Students may also learn that reptiles are hatched from eggs and are cold-blooded. After an informational text on reptiles, subsequent read-alouds could focus on specific types of reptiles, like snakes, sea turtles, or crocodiles. When reading about those specific types of reptiles, students can make intertextual comparisons to reinforce the information learned about "what makes a reptile a reptile." Specifically, when reading about crocodiles, students could learn how scales protect a crocodile's body, why crocodiles guard their nests after laying eggs, and why a crocodile might lay in the sun. All answers to these questions are based on what was initially learned about reptiles, but the information is applied in a deeper way.

The complexity of content and structure in informational texts varies extensively from text to text and across subject matter.

Just as questions about story structure can be used to understand and discuss narrative texts, a common set of organizing questions can be used to guide students' development of more expansive responses across informational texts (Santoro et al., 2014). For example, questions such as "Where does the animal live?," "What does it eat?," and "What does it look like?" can be applied when learning about any animal. Also, by focusing on a range of animals over the course of the units,

Table 1. Instructional Framework for Using Read-Alouds With Informational Text

Instructional framework	Implementation considerations	
Identify multiple texts for use across the curriculum	 When selecting texts, consider how to make text-to-text comparisons. Link texts strategically within units and sequence them meaningfully across units. 	
Provide opportunities for explicit instruction	 Use a consistent conceptual framework, like the K-W-L, before, during, and after readalouds to model question asking and answering, key idea and detail identification, and summarizing. Develop focus questions that can be used predictably when discussing a specific thematic category (e.g., questions for living things, people, holidays). Prioritize content related to focus questions. It is okay to read excerpts from the text during the read-aloud (versus the whole text). 	
Facilitate academic discussions	 Demonstrate, explain, and help students practice academic language. Use strategic pause points during read-alouds in which questions become scaffolds that prompt students to think more deeply about the text. Use sentence stems, prompt language extension with "super sentence" use, and expand ideas with the prompts "Why?" and "How do you know?" Use think time, for example, "Stop and think. [Wait 4 seconds.] Now let's talk about" 	
Promote expressive vocabulary use	 Introduce and explicitly teach word meanings. Emphasize expressive vocabulary (versus reading vocabulary). Prompt student expressive use of vocabulary (e.g., "I like what you said about insects. Now use the word <i>insects</i> in a super sentence.") Make word learning concrete with pictures, examples, and non-examples. 	
Link listening and reading comprehension	 Consider how oral language and listening comprehension can be used as a reading comprehension "warm-up." Model and explicitly teach reading comprehension strategies within a listening comprehension context. Use read-alouds to show students what comprehension "looks like." 	

Note. K-W-L = What Do I Think I Know?-What Do I Want to Learn?-What Did I Learn?

teachers can teach scientific attributes that make an animal a mammal, a reptile, or an insect. That way, students can demonstrate understanding of these formal classification systems through various compare-and-contrast activities. Table 2 provides sample focus questions that can be applied across other types of informational text.

A second consideration when using multiple texts for read-alouds is how the texts are paired or grouped within a unit. Although there are different ways to group texts within a unit, one approach is to use thematic pairings of narrative and informational texts. When the unit focuses on insects, for example, read-alouds can include both an informational text about insects and a narrative text featuring different kinds of insects as story characters. For example, after participating in a read-aloud with the informational text

Insects (Stewart, 2001), students would understand that the arachnids in the narrative text *The Buggliest Bug* (Shields, 2002) are spiders. Knowing that some spiders are predators of other insects is important to understanding the plot of the story. The overarching principle, therefore, is that linking texts strategically within units, and sequencing them in a thoughtful manner across units, can help students develop mental models for processing text and generating inferences as they read more complex texts (Kintsch & Rawson, 2007).

After attending his district professional development series, where the use of read-alouds and the findings from Fien et al. (2011) were discussed, Mr. Alexander decides to use complex informational text with his students again. Rather than selecting one text for his read-aloud, he begins to review

multiple books for use in a series of read-alouds. After looking at the general education science content more thematically, Mr. Alexander selects a set of books that can help students ask and answer focus questions about insects. For example, his first read-aloud book is on the general topic of insects. When using this book, he can help students ask and answer questions like "What is an insect?," "What do insects eat?," and "Where do insects live?" Mr. Alexander also picks books that discuss different types of insects (e.g., ladybugs, butterflies). When reading these books, he plans to help students ask and answer questions like "What do ladybugs look like?" "What do ladybugs eat?" and "What are ladybug habitats?" Because Mr. Alexander's primary instructional purpose is to help students prepare for their general education science unit, he decides that he will read the text aloud to his students. That

Table 2. Sample Focus Questions to Promote Comprehension Across Multiple Conceptually Linked Texts

Thematic category	Example(s)	Focus questions
Living things	Animals	 What types of animals are? What do they look like? What do they eat? Where do they live? How do they survive? What are their challenges? (What threatens their survival?) What is unusual or interesting about them? How are they useful or important?
People	Martin Luther King Jr., George Washington, Abraham Lincoln	 Who was he [she]? Why is he [she] famous? What were his [her] accomplishments? When did he [she] live? Were there any unusual or interesting things about him [her]?
Holidays	Presidents' Day, Valentine's Day, Columbus Day, Veterans' Day	 What is it? Why do we celebrate it? How do we celebrate it? What are the customs and traditions? Why is it important? When was it first celebrated?
Nonliving things	Rocks, furniture, clothing	 What is it? What does it look like, feel like, smell like? Where is it found? How is it made? Are there different types? What is unusual or interesting about it? How is it useful or important?
Events	Historical events (e.g., Boston Tea Party), community events (e.g., parade, circus)	When did this event occur?Where did it occur?Why did it occur?What happened?Why was it important?

way, he can plan pause points for comprehension and vocabulary instruction, and his students can focus on language and comprehension without the added struggle of trying to independently read the text. (Of course he still will provide explicit decoding and word-reading instruction at another time.)

Provide Explicit Comprehension Instruction

Explicit instruction is particularly important for students who struggle with foundational reading skills (e.g., decoding), who have limited language

skills, or who lack robust vocabulary or background knowledge (National Reading Panel, 2000). In a sense, the tools that expert learners rely on to comprehend text—such as making and confirming predictions, applying background knowledge, and making connections—are hidden from students experiencing comprehension difficulties. The role of explicit instruction, therefore, is to let students "in on the secret" of comprehension by making essential learning skills and strategies highly conspicuous (Coyne et al., 2009). In a read-aloud context, explicit comprehension instruction can be incorporated into a daily lesson

format that includes read-alouds with before-, during-, and after-reading routines.

The role of explicit instruction is to let students "in on the secret" of comprehension by making essential learning skills and strategies highly conspicuous.

The K-W-L strategy is an example of how explicit comprehension instruction

can be conspicuously integrated into read-alouds to promote understanding of key ideas and details when reading informational text (Blackowicz & Ogle, 2001; Klingner et al., 2015; Ogle, 1986; see the CCSS reading standards for informational text for grades K-5, Standards 1 through 3, "Key Ideas and Details"). Teachers can use the K-W-L as a graphic organizer before, during, and after a read-aloud to document what students think they know about a topic (priming background knowledge), what they want to learn from the text (question asking), and what they are learning during the read-aloud and after the read-aloud is concluded (question answering and note taking). When the K-W-L chart is completed, the information in the column "What Did We Learn?" is summarized by retelling. Because effective readers remember more if they ask themselves questions during reading and actively monitor their understanding, the K-W-L becomes more than just a graphic organizer; it also serves as a question-asking and -answering tool to promote active engagement, monitor, and help students ask and answer questions about the text.

Before reading, students identify things they think they know about the text's topic and brainstorm questions they hope to learn about and answer during reading. When working with students with learning disabilities, a teacher can use focus questions to guide students' brainstorming of what they think they know and what they want to learn (Table 2). For example, every time students get ready to read a book about animals, questions such as "Where does the animal live?," "What does it eat?," and "What does it look like?" help frame student thinking. During the read-aloud, there are planned and spontaneous pauses to discuss and answer the question, "What do I want to learn?" In other words, the teacher pauses to both ask and answer the focus questions ("Where does the animal live?" "What does it eat?" "What does it look like?") After the read-aloud, the K-W-L questions and answers serve as an organizing framework to help students retell key ideas and details. Overall, from an instructional design

perspective, the K-W-L provides a consistent organizational framework for the comprehension of informational text by incorporating strategies, like making predictions (e.g., asking and answering the question "What do I want to learn?" during reading) and identifying key ideas and details (e.g., using focus questions as key ideas).

Mr. Alexander uses the K-W-L to frame comprehension for his students. Because he uses the K-W-L across multiple read-alouds that focus on animal-related texts, students learn the predictability of asking and answering content-related questions about animal habitat (Where does it live?), diet (What does it eat?), and appearance (What does it look like?). Mr. Alexander also shows his students how the focus questions work as "key ideas." As they read aloud texts, learn interesting facts and information, and answer focus questions, the K-W-L chart becomes a place where key ideas and details can be recorded, organized, and summarized.

To help make question asking and answering even more concrete, Mr. Alexander writes the focus questions used on the K-W-L chart onto individual student response cards for each student in his small group. Mr. Alexander instructs his students to hold up a card with the appropriate question when they hear something from the text that will help answer that question. Overall, Mr. Alexander finds that using the K-W-L chart and focus questions gives a structure to his read-alouds. Unlike his first read-aloud attempt, when he had a challenging time sequencing instruction so his students could understand the most important things first, he is able to focus instruction cohesively on key ideas and details. Through the use of the K-W-L framework and focus questions, Mr. Alexander learns that not every piece of information in the text needs to be discussed in detail, and not all parts of the text have to be read. If discussions become off task, or parts of the text are truly too confusing or require too much backtracking to build background knowledge, he can always redirect the read-aloud to topics relating to the focus questions.

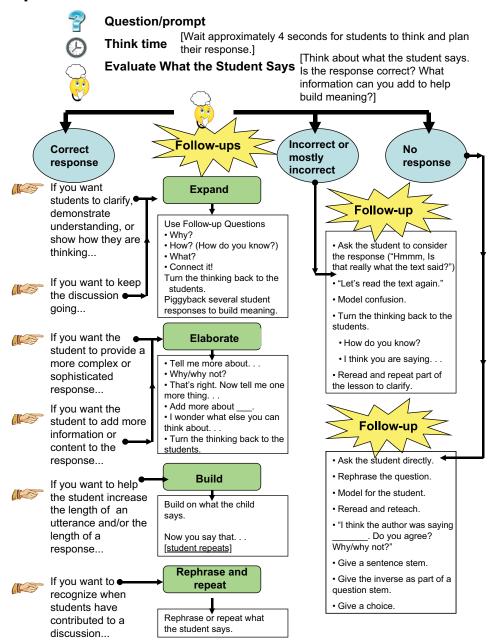
Facilitate Interactive Academic Discussions

In addition to using read-alouds to explicitly teach comprehension skills and strategies (e.g., identifying the key idea, making inferences, summarizing), read-aloud routines can foster interactive academic discussions about text. Interactive discourse can be considered part of explicit instruction because teachers demonstrate, explain, and help students practice the features that make these types of discussions beneficial for comprehension. The use of read-alouds to facilitate interactive academic discussions can be particularly helpful to students who struggle with understanding heard language and who struggle to express ideas and intentions in oral language (e.g., students with oral and written language learning disability; Berninger & Wolf, 2009).

Discourse cycles throughout the before, during, and after phases of a read-aloud involve teacher-student exchanges about the text with strategic pause points, in which questions become scaffolds that prompt students to think more deeply about the text. In a typical exchange, a student's answer to an initial question is followed by a prompt, such as "Why?" or "Tell me more about that." The student elaborates and the teacher provides feedback on the response. Additional prompts can also be provided to clarify or expand the discussion, for example, "Tell me something I read in our book about insects to support why you think a ladybug is an insect."

To facilitate discussions during read-alouds with informational text, teachers can use a set of *talk routines*, based on the Questioning the Author program (Beck & McKeown, 2006; Beck, McKeown, Hamilton, & Kucan, 1997). Figure 1 shows a "talk map" illustrating talk routines that can help guide teachers' use of questions, "think time" so that students have time to process and think about their response, and follow-up prompts (Fien et al., 2011; Santoro et al., 2014). Talk routines during read-alouds are intended to increase and improve teachers' use of

Figure 1. Talk Map With Discourse Routines



open-ended questions (McKeown & Beck, 2003). Open-ended questions used with strategically placed follow-up prompts help bridge literal and inferential understanding. To respond to inquiries like "Why?" and "How do you know?," for example, students make connections among different parts of the text, work to construct a coherent representation of the text, and fill in gaps by drawing accurate inferences. Through read-aloud discussions, first-grade students, for example, can infer key ideas and details, consider how two texts on the same topic

provide similar and different interpretations, and identify the reasons an author gives to support points in the text (see CCSS reading standards for informational text, K–5, Standards 7–9, "Integration of Knowledge and Ideas').

When having text-based discussions with his students, Mr. Alexander learns how he can scaffold and support student expressive language while simultaneously challenging student thinking with open-ended questions. For example, before a read-aloud, Mr. Alexander uses sentence stems to help

students warm up for read-aloud time and practice language: "Repeat after me: Insects have three body parts. Insects have what?" [Three body parts.] "Insects have six legs. Insects have what?" [Six legs.] "Insects have a pair of antennae. Insects have a pair of what?" [Antennae.]

During reading, Mr. Alexander pauses, show students a picture of an insect, and asks "What do insects look like?" When a student answers the question by saying, "Two long hairs," Mr. Alexander responds with, "Yes, we

call this part of the insect the antennae. Repeat after me, 'Antennae.' That's right, insects have antennae. Antennae are a pair of feelers on an insect's head that detect motion, smells, and sounds around them. What word means a pair of feelers on an insect's head that detects motion, smells, and sound around?" Mr. Alexander also expands the discussion by asking, "What else do insects have?" When a student responds by saying that insects have three body parts, Mr. Alexander asks, "Why?" and "How do you know?"

Promote Expressive Vocabulary Use

Understanding complex, informational text requires knowledge of numerous content-specific vocabulary words. Typically, more so than narrative text, many of these words are conceptually difficult (e.g., metamorphosis, larvae, chrysalis) and often represent completely new concepts for students. To develop a rich understanding of concepts like habitat, survive, and protect requires extensive experience with words and concepts, interactive discussions, demonstrations, and opportunities for students to use taught vocabulary to convey their emerging understanding (Hiebert & Cervetti, 2012).

Integrating explicit vocabulary instruction and extended discussions about word meanings into read-aloud routines is an ideal opportunity for students to interact with words in a variety of contexts and over an extended period of time (Puhalla, 2011). In terms of the CCSS (National Governors Association Center for Best Practices & Council of Chief State School Officers, 2010), it is important to consider how vocabulary is emphasized in the language strand (i.e., Standards 4, 5, and 6 focus on "vocabulary acquisition and use"). That is, students should not only recognize age-appropriate vocabulary terms and know word meanings; they must also use words accurately to express themselves and convey their knowledge of specific disciplinary content, demonstrate their understanding of vocabulary terms,

and analyze the structure of words for meaning.

Table 3 illustrates how read-aloud discussions about the word *insect* can be used to introduce and explicitly teach a word's meaning. Note how the term *super sentence* can prompt students to add more to their statements about insects (e.g., "I liked what you said about reptiles. Now add more to your idea and use the word *insect* in your super sentence."). Picture cards representing read-aloud vocabulary can also be used to make learning more concrete.

Mr. Alexander also starts introducing vocabulary words to students with explicit instruction. As he teaches words to students and has students practice using vocabulary words during text-based discussions, Mr. Alexander realizes the instructional difference between helping students learn and build vocabulary expressively versus teaching vocabulary words that students will encounter in their own reading. To help support expressive vocabulary use, Mr. Alexander continues to model language and show students how to use vocabulary words in "super sentences." He also uses examples and non-examples to illustrate distinctions in word meaning whenever he can. For example, he shows students pictures of a June beetle, a butterfly, and a chipmunk when teaching the word insect. He also knows that during his reading instruction with students, he can reinforce the vocabulary taught during read-aloud time by using other researchbased vocabulary strategies, like semantic maps or mnemonic (key word) approaches (Jitendra, Edwards, Sacks, & Jacobson, 2004; Kame'enui & Bauman, 2012).

Link Listening and Reading Comprehension

The use of language is central to the read-aloud experience for students because written language and complex text are experienced directly without the demands of proficient reading as a precondition for grappling with a text's

meaning. When teachers assume primary responsibility for reading the text, students are released to develop listening comprehension skills during read-alouds. Even though listening comprehension is emphasized during read-alouds, the same skills and strategies teachers use to help students build listening comprehension can eventually be used by students to comprehend text on their own (Baker et al., 2013). More specifically, readalouds (listening comprehension instruction) can be strategically combined with reading comprehension instruction to help students with learning disabilities transfer listening comprehension skills to reading and integrate the various higher-order components of comprehension in resource-limited working memory (Berninger & Wolf, 2009). In other words, listening and reading comprehension instruction can be taught in the same lesson so comprehension becomes functionally integrated (e.g., read-alouds are used as a lesson warm-up or as an introduction to a lesson followed by reading comprehension instruction).

The process of text comprehension, whether based on listening to or reading text, requires an active, ongoing, internal dialogue about the text. In the early stages of developing this internal dialogue, read-alouds with an expert adult (e.g., the teacher) that involves explicit instruction, thinkalouds, and interactive discussions can help accelerate the comprehension learning process. Through ongoing, structured read-aloud experiences with explicit vocabulary and comprehension instruction, students learn welldeveloped mental models for how comprehension looks and feels that can be applied to their experience with complex, informational text. Comprehension instruction, therefore, can begin well before the time students are ready to actually read and navigate complex texts on their own and can be used to help students who require additional oral language practice. Simply put, oral language is the preparation for written language (Berninger & Wolf, 2009).

Table 3. Read-Aloud Vocabulary Instruction for Introducing Words

Instructional step	Sample instructional language
1. Introduce the word	"Today we are going to talk about a word. Listen while I say the word. <i>Insect.</i> Let's work on really understanding what <i>insect</i> means."
2. Model saying the word	"Our word is insect."
3. Say the word together	"Say the word insect with me. Insect."
4. Students say the word	"Now, say the word on your own." ("Insect.")
5. Say the definition and model your thinking	"An insect is a small animal that has three body parts, six legs, and a pair of antennae." "What word means 'a small animal that has three body parts, six legs, and a pair of antennae'?" ("Insect.")
6. Discuss examples and non-examples and tell them what you are thinking	"Now it's your turn to think about <i>insect</i> . I'm going to show you a picture and you're going to tell me if it shows an insect or not an insect. Here's a picture of a June beetle." "Does this picture show an insect?" "How do you know this is an insect?" "Does it have three body parts, six legs, and a pair of antennae?" Set the butterfly and chipmunk pictures on the table. Make sure all students can see the pictures. Ask the students to look at the pictures and figure out (in their head) which picture shows an example of an insect and how they know that it is an example of an insect. "Which picture shows an insect?" ("Butterfly.") If students respond incorrectly, stop, review the definition, and repeat the question: "Which picture shows an insect?" "How do you know this is an example of an insect?" "Everyone say the word we've been talking about." ("Insect.") If necessary, provide additional examples and non-examples of insect. If student(s) respond incorrectly, immediately provide the correct response, have all students repeat the correct response, then review and discuss the definition.
7. Ask students to identify and say the word	"Tell me the word for a small animal that has three body parts, six legs, and a pair of antennae." Using the choral response prompt, ask students the following: "The word is" ("Insect.") "That's right, the word is insect."
8. Ask, "What does [vocabulary word] mean?"	"What is an insect?" "An insect is a" ("Small animal that has three body parts, six legs, and a pair of antennae.") "That's right, an insect is a small animal that has three body parts, six legs, and a pair of antennae."
9. Model how to use the word in a super sentence and tell what you are thinking	"Now, I want you to use the word <i>insect</i> in a super sentence. A super sentence uses lots of words, not just a few words, to tell what you know. Let me show you. An ant is an insect because it has three body parts, six legs, and a pair of antennae. How do I know? I know a butterfly is an insect because it has three body parts, six legs, and a pair of antennae."
10. Students say the word in a super sentence and tell what they are thinking	Using the partner response prompt, guide students to complete a super sentence by leading with a sentence stem, for example, "A fly is an insect because it has three body parts, six legs, and a pair of antennae." Use follow-up partner response prompts to help students demonstrate their thinking (e.g., "How do you know a fly is an insect?") If needed, you can also tell students that using the word <i>because</i> helps tell why.

Through ongoing, structured read-aloud experiences with explicit vocabulary and comprehension instruction. students learn welldeveloped mental models for how comprehension looks and feels.

Final Thoughts

In the vignette used throughout this article, Mr. Alexander is preparing his special education students for a general education science unit on insects. To expose students to the sophisticated vocabulary and content required for the science unit, Mr. Alexander purposefully selects multiple, thematically linked informational texts to use in his small-group read-alouds. Because Mr. Alexander will be using a framework of explicit instruction for comprehension, vocabulary, and textbased discussion, he confidently selects informational text that is complex in structure. By using read-alouds, and oral language as the context, Mr. Alexander also knows that he can introduce students to complex text without the demands of proficient reading skills as a precondition for figuring out meaning. By following the instructional framework for using readalouds with informational text presented in this article (Table 1), Mr. Alexander's students no longer flounder inside the text's complex structure. Mr. Alexander now sees students who are interested in learning about insects and motivated to engage and interact with informational text.

References

- Baker, S. K., Santoro, L. E., Chard, D. J., Fien, H., Park, Y., & Otterstedt, J. (2013). An evaluation of an explicit read aloud intervention taught in whole-classroom formats in first grade. Elementary School Journal, 113, 331-358. http://dx.doi. org/10.1086/668503
- Beck, I. L., & McKeown, M. G. (2006). Improving comprehension with questioning the author: A fresh and

- expanded view of a powerful approach. New York, NY: Scholastic.
- Beck, I. L., McKeown, M. G., Hamilton, R., & Kucan, L. (1997). Questioning the author: An approach for enhancing student engagement with text. Newark, DE: International Reading Association.
- Berninger, V. W., & Wolf, B. J. (2009). Teaching students with dyslexia and dysgraphia: Lessons from teaching and science. Baltimore, MD: Brookes.
- Blackowicz, C., & Ogle, D. (2001). Reading comprehension: Strategies for independent learners. New York, NY: Guilford Press.
- Coyne, M. D., Zipoli, R. P., Chard, D. J., Faggella-Luby, M., Ruby, M., Santoro, L. E., & Baker, S. (2009). Direct instruction of comprehension: Instructional examples from intervention research on listening and reading comprehension. Reading and Writing Quarterly, 25, 221-245. http://dx.doi. org/10.1080/10573560802683697
- Cummins, S., & Stallmeyer-Gerard, C. (2011). Teaching for synthesis of informational texts with read alouds. Reading Teacher, 64, 394-405. http:// dx.doi.org/10.1598/RT.64.6.1
- Duke, N. K., Bennett-Armistead, V. S., & Roberts, E. M. (2003). Bridging the gap between learning to read and reading to learn. In D. M. Barone & L. M. Morrow (Eds.), Literacy and young children: Research-based practices (pp. 226-242). New York, NY: Guilford Press.
- Duke, N. K., & Billman, A. K. (2009). Informational text difficulty for beginning readers. In E. H. Hiebert & M. Sailors (Eds.), Finding the right texts: What works for beginning and struggling readers. New York, NY: Guilford Press.
- Editors. (2010–2011, Winter). Envisioning a common core curriculum. American Educator, pp. 37–42. Retrieved from http://www.aft.org/sites/default/files/ periodicals/CommonCore.pdf
- Fien, H., Santoro, L. E., Baker, S., Park, Y., Chard, D., Williams, S., Otterstedt, J., & Haria, P. (2011). Read alouds enhanced with Tier 2 instruction: Closing the vocabulary and comprehension gap in first grade. School Psychology Review, 40, 307-318.
- Fien, H., Santoro, L. E., Baker, S., Park, Y., Williams, S., Otterstedt, J., . . . Haria, P. (2016). Examining the impact of a read aloud intervention in first grade: A randomized controlled trial. Manuscript in preparation.
- Hiebert, E. H., & Cervetti, G. N. (2012). What differences in narrative and

- informational texts mean for the learning and instruction of vocabulary. In E. J. Kame'enui & J. F. Baumann (Eds.), Vocabulary instruction: Research to practice (pp. 322-344). New York, NY: Guilford Press.
- Jitendra, A. K., Edwards, L. L., Sacks, G., & Jacobson, L. A. (2004). What research says about vocabulary instruction for students with learning disabilities. Exceptional Children, 70, 299-322. http://dx.doi. org/10.1177/001440290407000303
- Kame'enui, E. J., & Baumann, J. F. (2012). Vocabulary instruction: Research to practice (2nd ed.). New York, NY: Guilford Press.
- Kintsch, W., & Rawson, K. A. (2007). Comprehension. In M. J. Snowling & C. Hulme (Eds.), The science of reading: A handbook (pp. 209-226). Malden, MA:
- Klingner, J. K., Vaughn, S., & Boardman, A. (2015). Teaching reading comprehension to students with learning difficulties (2nd ed.). New York, NY: Guilford Press.
- McKeown, M., & Beck, I. L. (2003). Taking advantage of read-alouds to help children make sense of decontextualized language. In A. van Kleeck, S. A. Stahl, & E. B. Bauer (Eds.), On reading books to children: Parents and teachers (pp. 159-176). Mahwah, NJ: Lawrence Erlbaum.
- Nation, K. (2007). Children's reading comprehension difficulties. In M. J. Snowling & C. Hulme (Eds.), The science of reading: A handbook (pp. 209-226). Malden, MA: Blackwell.
- National Governors Association Center for Best Practices & Council of Chief State School Officers. (2010). Common Core State Standards. Washington, DC: Author.
- National Reading Panel. (2000). Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading. Washington, DC: National Institute of Child Health and Human Development.
- Ogle, D. (1986). KWL: A teaching model that develops active reading of expository text. Reading Teacher, 39, 564-570. http://dx.doi.org/10.1598/RT.39.6.11
- Pinker, S. (2007). The stuff of thought: Language as a window into human nature. New York, NY: Penguin.
- Puhalla, E. (2011). Enhancing the vocabulary knowledge of first-grade children with supplemental booster instruction. Remedial and Special

Education, 32, 471-481. http://dx.doi. org/10.1177/0741932510362495

Santoro, L. E., Chard, D. C., Howard, L., & Baker, S. K. (2008). Making the VERY most of read alouds to promote comprehension and vocabulary. Reading Teacher, 61, 396-408. http://dx.doi. org/10.1598/RT.61.5.4

Santoro, L. E., Williams, S., Bousselot, T., Baker, S. K., Fien, H., & Chard, D. (2014). Read Aloud! Developing narrative and scientific literacy-small group curriculum. Eugene, OR: Center on Teaching and Learning.

Scott, C. (2004). Syntactic contributions to literacy learning. In C. A. Stone, E. R. Silliman, B. J. Ehren, & K. Apel (Eds.), Handbook of language and literacy: Development and disorders (pp. 340-362). New York, NY: Guilford Press.

Shields, C. D. (2002). The buggliest bug. Cambridge, MA: Candlewick Press.

Smolkin, L. B., & Donovan, C. A. (2003). Supporting comprehension acquisition for emerging and struggling readers: The interactive information book read-aloud. Exceptionality, 11(2), 25-38. http:// dx.doi.org/10.1207/S15327035EX1101_3

Stewart, M. (2001). Insects: A true book. New York, NY: Children's Press.

Varelas, M., & Pappas, C. C. (2006). Intertextuality in read-alouds of integrated science-literacy units in urban primary classrooms: Opportunities for the development of thought and language. Cognition and Instruction, 24, 211-259. http://dx.doi.org/10.1207/ s1532690xci2402_2

Authors' Note

The research discussed by Fien et al. (2011) was supported by the Institute of Education Sciences, U.S. Department of Education, through Grant R305G050216 to the Pacific Institutes for Research. The opinions expressed are those of the authors and do not represent views of the Institute or the U.S. Department of Education.

Lana Edwards Santoro, Courtesy Research Associate, Center on Teaching and Learning, University of Oregon, Eugene. Scott K. Baker, Research Professor, Center on Research and Evaluation, Southern Methodist University, Dallas, Texas. Hank Fien, Associate Professor and Director; and Jean Louise M. Smith, Research Assistant Professor and Associate Director, Center on Teaching and Learning, University of Oregon, Eugene. David J. Chard, Dean, Annette Caldwell Simmons School of Education and Human Development, Southern Methodist University, Dallas, Texas.

Address correspondence regarding this article to Lana Edwards Santoro, University of Oregon, P.O. Box 30380, Alexandria, VA 22310 (e-mail: lana@lanasantoro.com).

TEACHING Exceptional Children, Vol. 48, No. 6, pp. 282-292.

Copyright 2016 The Author(s).