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Comprehension Instruction for Students with Reading Disabilities in Grades 4 Through 12

Deborah K. Reed
The University of Texas at El Paso

Sharon Vaughn
The University of Texas at Austin

Many students with reading difficulties in grades 4 through 12 experience challenges in understanding and learning from text. Some of these learners have demonstrated reading challenges from the early grades and have not acquired successful reading skills. Others were adequate readers in the early grades when word reading was the focus and when text complexity was minimal. Improving reading outcomes for both persistently poor readers and relatively newly challenged readers requires school-wide instructional practices integrated into content area instruction in math, science, and social studies. This article describes these practices and provides examples of how to teach reading comprehension within the content area.

The challenges many students in grades 4 through 12 experience in reading to understand and to learn from the complex texts in English/language arts, social studies, science, and even mathematics have been recognized by researchers and policy makers (Joseph & Schisler, 2009; Kamil et al., 2008; Kemple et al., 2008). In fact, findings from research conducted with adolescents suggest that the most commonly identified difficulty is with comprehension (Hock et al., 2009; Valencia & Buly, 2004), particularly when reading informational text (Saenz & Fuchs, 2002). Some students did not exhibit difficulties through third grade but emerged later as poor readers, having problems in comprehension or in both comprehension and word processing (Leach, Scarborough, & Rescorla, 2003; Lipka, Lesaux, & Siegel, 2006).

Traditionally this has been termed the “fourth-grade slump” (Chall & Jacobs, 2003), referring to the high numbers of students who were reasonably successful readers in the early grades but who later developed reading difficulties. “Slump,” however, implies a temporary problem associated with the shift to more expository text and the increase in multi-syllable words in upper-grade-level texts. Students in a reading “slump” could be expected to recover through time, but a number of adolescents experience a persistent difficulty. Among adolescents meeting criteria for having a reading disability (RD), many researchers estimate that 41% to 47% were late-emerging or late-identified (Badian, 1999; Leach et al., 2003; Shaywitz, Escobar, Shaywitz, Fletcher, & Makuch, 1992). Most of these students (approximately 82%) will need specialized intervention in word identification, but 58% demonstrate weaknesses in comprehension—either alone (approximately 18%) or in combination with word identification problems (Leach et al., 2003).

Adolescents with RD are a very heterogeneous group exhibiting different patterns of strengths and weaknesses in component reading skills such as comprehension, vocabulary, fluency, and word identification (Hock et al., 2009). Consequently, the reading challenges of students in 4th grade and above provide considerable stress for teachers who are confronted with the dual task of ensuring that students read with understanding and also that they learn and acquire content (Perfetti, Landi, & Oakhill, 2005). While these two goals are not contradictory, most content teachers (e.g., in social studies, science) do not perceive that they have adequate knowledge, skills, or time to address reading comprehension and content acquisition (Kosanovich, Reed, & Miller, 2010). Despite initially feeling overwhelmed at having to address factors associated with poor comprehension (e.g., limited vocabulary and conceptual knowledge, learning disabilities) while also accomplishing the content standards of their courses, general education teachers can be successful at integrating effective literacy practices with subject matter curricula (Sturtevant & Linek, 2003). The purpose of this article is to summarize recommendations for teaching reading comprehension in the content areas as a means for enhancing both reading for understanding and learning with students who have reading difficulties.

Effective Comprehension Instruction in All Academic Classes

There have been several recent summaries of the available research on academic literacy instruction for adolescents offering recommendations for improvements that all content-area teachers could make to support and develop their students' literacy abilities (Kamil et al., 2008; Kosanovich et al., 2010; Torgesen et al., 2007). These included (but are not limited to) the following: (1) explicitly teaching vocabulary; (2) providing comprehension strategy instruction; (3) increasing the amount of extended discussions about words and texts; (4) focusing on the essential content of the subject; and (5) supporting students' motivation to read. Implementation of recommendations such as these occurs within an integrative model that acknowledges and draws upon the relationship among characteristics of the reader, text being read, and context of the reading event (Sweet & Snow, 2003).

For example, strategy instruction (recommendation 2 above) might include the use of graphic organizers (Gajria, Jitendra, Sood, & Sacks, 2007), but simply providing a graphic organizer will not achieve the desired improvement in comprehension and content knowledge. To be effective, strategy instruction must teach students *why* the graphic organizer is useful, *how* it can be used to display the relationship among the ideas in a particular text, and *in what ways* the tools might be applied to other texts or settings. For students with RD, this instruction must be very explicit and not assume that students will pick-up on implicit cues from teacher modeling (Manset-Williamson & Nelson, 2005). When students believe that they have control over strategies that they can employ to help them with challenging academic tasks, they exhibit motivation to work hard (related to recommendation 5 above) and a positive self-perception (Meltzer, Katzir, Miller, Reddy, & Roditi, 2004).

A critical component of incorporating discussion in classroom instruction (from recommendation 3 above) is actively involving students in processing text and critiquing the ideas contained therein (McKeown, Beck, & Blake, 2009). This can be done by posing open questions that are not based on identifying literally stated information, but that require extended responses and develop habits of analysis and critical thinking. Deep discussions such as these are sometimes called extended curricular conversations (Applebee, Adler, & Fihan, 2007). They are linked to the other recommendations because students may need to learn the technical vocabulary used to communicate the ideas (from recommendation 1 above) as well as strategies for analyzing the text at more than a surface level. In addition, the discussions are focused on the essential content learning (recommendation 4 above) and the continued development of students' background knowledge relevant to the new concepts presented in the text.

These practices are stated in a general sense to emphasize their applicability across courses. Within the broad recommendations, however, there are often specific suggestions for helping students learn the specialized vocabulary and understand the discourse of a particular discipline.

Disciplinary Literacy Instruction for Students with Reading Disabilities

Mathematics

Mathematics is often referred to as having its own "language" (Adams, 2003; Riccomini, Sanders, & Jones, 2008). This expression refers not only to conceptual terms, such as *argand plane*, that are infrequently heard or used outside of math classes, but also to unique uses of more common words and the grammatical structure of mathematical sentences. Consider, for example, the use of the word *reduced* in the following problems:

1. A graphic designer created a computer graphic that is 6 inches long and 4 inches wide. If the graphic is proportionally <u>reduced</u> so that the length is 4 inches, what would be the new width of the graphic?
2. Joe has a part-time job at a department store. During the holiday, he worked 30 hours per week. After the holidays, he <u>reduced</u> his hours to 20 per week. How many hours less is he working per week now?

In the first problem, the term *reduced* requires setting-up a proportion using fractions, cross multiplying, then dividing. In the second problem, however, the term *reduced* only requires subtraction. There are still other uses of the term students might encounter: *reduced* by ½ as much, *reduced* by 120%, *reduced* the fraction. Each is associated with different mathematical steps, so students must be taught the multiple meanings of the word and how to use the very brief context of a word problem to determine which meaning applies. There are several types of context clues taught for learning unfamiliar words in traditional texts: embedded definitions, synonyms, antonyms, noted examples, and general clues that could be extended across several sentences (Baumann, Font, Edwards, & Boland, 2005). Many of these are not as likely to be present in the condensed text of mathematical word problems or might be based on numbers and symbols rather than words. For example, the general clues in the problems above would include the dimensions of the graphics and the number of hours Joe worked per week during and after the holidays. Only the second problem provides a form of a synonym for *reduced*: *less*.

Sometimes, students encounter different but related math terms that signify different operations in different contexts. Orr (1997) noted such a difficulty with the words *half* and *twice* because "when one divides something in half, one divides it into two equal parts and there are, therefore, twice as many things as there were before" (p. 89). Orr reasoned that this confusion could lead students to believe that a 2 in the denominator meant the fraction should be doubled. Potentially, then, students could start treating other numbers in the denominator as multipliers rather than as divisors.

Two possible means of addressing these vocabulary issues include a categorization strategy (Berenson, 1997) and a mnemonic strategy (Riccomini et al., 2008). For the former, students are given different expressions for a concept, such as *division*, and asked to group related words. The teacher then explores student thinking by posing open questions:

- What name will you give this group?
- How are these words alike?
- Can you explain why these words belong in the group?

In the mnemonic strategy, students are taught to associate the math term with a similar sounding key word and a picture or graphic that depicts the essential information (Mastropieri , Scruggs, & Fulk, 1990). Teachers then promote retrieval of the correct definition by having students describe the picture/graphic in a sentence or two, using the target vocabulary.

When working with mathematical vocabulary, it is important for students not only to know the particular meaning of a word, but also to understand the mathematical concepts and problem contexts to which the word applies. Therefore, the categorization and mnemonic strategies described above are not meant to suggest that words are taught in isolation. Rather, the strategies serve as tools for linking related terms and triggering students' memory as they build an overarching understanding of the math concepts the words represent. Building conceptual knowledge helps students anchor a word in a meaningful way that is not problem-specific but could be applied to other problem-solving situations (Jayanthi, Gersten, & Baker, 2008). Conceptual knowledge also supports students' comprehension of math texts, particularly how to read symbols as well as set up and solve problems.

This is related to addressing other difficulties students might experience with the syntax or the arrangement of, and relationship among, the words in mathematical sentences. Typical English texts are written from left to right and the order of the items is governed by the use of various parts of speech. When working a math problem, however, students cannot simply copy the items based on the order in which they are presented. Consider the following two problems:

1. Mrs. Garza has 28 students that she divided into 4 equal groups.
2. Mrs. Garza had 4 groups into which she equally divided her 28 students.

In the first problem, students could copy the numbers and symbols in order from left to right: $28 \div 4$. The second problem, on the other hand, requires the numbers be transposed. Both problems are correctly stated according to the rules of standard English, but they reflect two different ways of communicating the same information. Orr (1997) found that many students, especially those who are not accustomed to using standard English, simply memorize a pattern of responding. If the teacher were to work several problems worded similarly to the first one above, students will likely continue to repeat the process of copying the numbers and symbols in order from left to right even when presented problems worded in the alternate format of the second problem.

Although this may go undetected when working addition or multiplication problems, it will cause great confusion with subtraction and division. The reason for this is that addition and multiplication operations are directionless; the items being added or multiplied can be listed and computed in any order with the same result. For example, 8 + 2 has the same sum as 2 + 8. In a division problem, reversing the terms changes the quotient: 8 ÷ 2 = 4 but 2 ÷ 8 = .25.

Previous research (e.g., Brown, 1981; Herriman, 1991) suggests that students who struggle in mathematics often lack the ability to use syntax as a guide in moving from the verbal description to the algebraic notation. In fact, there are a myriad ways to express an idea in a math problem by combining, interchanging, or reordering phrases without altering the meaning of the expression. The following phrases all mean the same thing, but are worded quite differently:

- At a speed that is equal to that of . . .
- The same speed as . . .
- As fast as . . .
- Neither faster nor slower than . . .

To assist with comprehending word problems that contain these different expressions in combination with mathematical symbols, students with RD and learning disabilities (LD) can be taught strategies for identifying the elements of particular problem types (e.g., part-part-whole, additive compare) in much the same way that students are taught to recognize the organizational elements (e.g., cause-effect, problem-solution) of informational text in other subject areas (Xin, Wiles, & Lin, 2008). The key elements of a problem type are turned into questions to guide students in understanding the underlying structure, such as "Which sentence tells about the whole or combined quality?" and "Which sentence tells about one of the small parts that makes up the whole?" (Xin et al., 2008, p. 165). After detecting the problem structure and organizing the mathematical relations in the appropriate model diagram representing the structure, students then transform the diagram into a mathematical equation and solve for the unknown quantities.

As the length and complexity of word problems increase, it can be more difficult for students with RD to sort out extraneous information in order to identify the problem structure. But unlike information presented in other content area texts, math exists in a binary framework. That is, it is possible to work only with two numbers at a time, and the symbols—not the word order—dictate the sequence in which the operations are performed (Adams, 2003). This lends itself well to helping students with RD and LD breakdown a problem into manageable chunks. A graphic organizer can be used to explicitly teach students (1) how to extract pertinent information and then (2) how to plan and work through the problem in a sequence of discrete steps (Braselton & Decker, 1994).

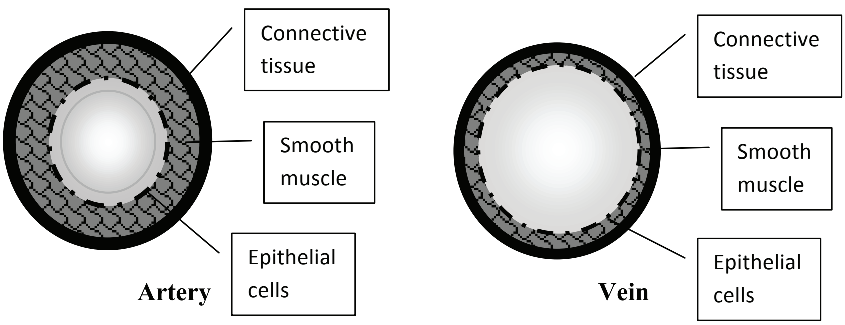
Comprehension instruction in math also ensures that students understand the particular uses of words and phrases well enough to get the gist of the problem and translate the words into the formulaic syntax of mathematics. In other words, it helps students understand why particular words and phrases mean something within the problem and how they relate to the underlying mathematical concepts they represent. The combination of building comprehension and conceptual knowledge gives students with RD and LD control over applying concepts and setting up problems for themselves, rather than being limited to performing mathematical functions with problems already set-up for them.

Science

Some science classes share the same issues with word problems and formulaic syntax as math courses. However, science texts typically include more prose than math texts. These lengthier segments of writing are integrated with graphics, such as diagrams or illustrations, and students are expected to move back and forth between them (Shanahan & Shanahan, 2008). In other words, the two forms of science information are in a reciprocal relationship: the written descriptions support students' interpretation of the graphics, and the graphics support students' understanding of the written material. Consider the following example that might appear in a segment of biology text:

> *Both arteries and veins are structures that carry blood throughout the body. Their walls are made of three layers, but there is an important difference between the two types of blood vessels. The walls of arteries are much thicker than the walls of veins.*

Cross-sectional View of Arterial and Venal Walls



> *The reason arteries need to be thicker is because they carry blood away from the heart under strong pressure exerted each time the heart muscle contracts or pumps. Blood moving back toward the heart in the veins has much less force.*

The first sentences establish what students will see in the cross-sectional diagrams. The graphics expand on the written information by providing the names of the three layers and depicting the contrasting thickness of arterial and venal walls. Students are then returned to the written material to understand why there is a difference, even though the same three layers are present in each structure. Gaining sufficient content knowledge is dependent upon the information in both the written and graphic portions of the text, but putting the two together can be challenging for students with RD.

To guide students in constructing scientific knowledge, Chin (2007) recommends that teachers pose open questions to elicit student thinking and then offer instructional feedback and/or extension questions to weave together verbal, visual, and symbolic ideas. Possible stems include:

- How is the diagram/graph/image related to the explanation of _____?
- What does ____ tell you about ____?
- What happens to _____ when _____?
- How can you tell if _____?
- How can you describe _____?

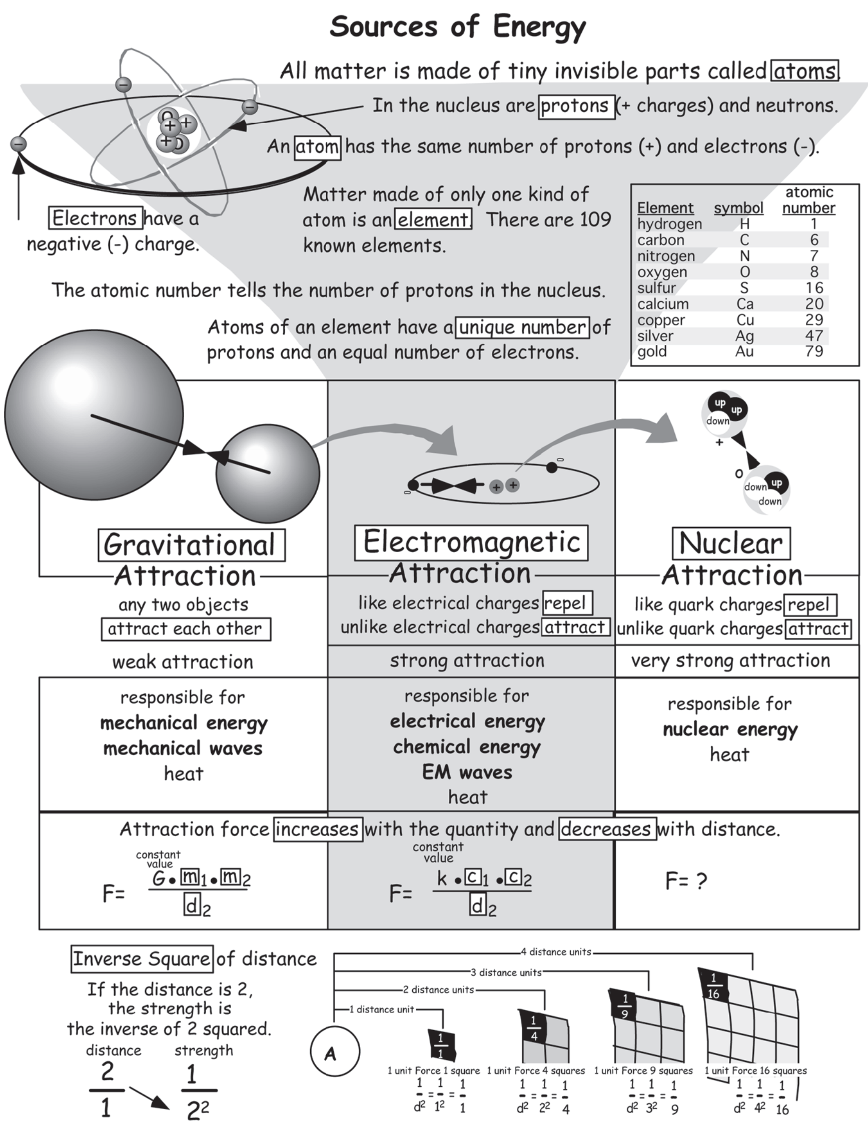
In addition to using interactive questioning techniques, Carnine and Carnine (2004) suggest explicitly teaching how to read and learn from the graphic sources of information. This can be facilitated by preparing graphic organizers incorporating various figures, charts, or other visuals from a chapter with blanks or missing portions for students to practice their recall of key information. Teachers first model how to complete the graphic organizer as they talk through extracting information from the written and visual/symbolic sources of information and considering its relationship to other information as depicted on the organizer. An example of a graphic organizer from a chapter on energy and matter is provided in Figure 1.

Learning to cope with the interplay between different modes or sources of information in a science text is compounded by the density of the technical vocabulary included. Fortunately, however, many scientific terms are based on classification systems derived from Greek and Latin words for which students can be directly taught the prefixes, roots, and suffixes that unlock the meaning of the terms (Fang, 2006). The following list of words from a geology unit on the classification of rocks, demonstrates how the scientific terms can be broken into their meaningful parts:

- Sedimentary: *sed* (to settle); *ment* (a product of); *ary* (adjective, describing word)
    - Evaporites: *e* (out of); *vapor* (steam); *ite* (mineral or fossil)
    - Breccia: *brec/brech* (fragment, break); *ia* (plural noun)
- Igneous: *ign* (fire); *eous* (composed of, resembling)
    - Diorite: *dior* (to distinguish); *ite* (mineral or fossil)
    - Granite: *gran* (grainy, made of grains); *ite* (mineral or fossil)
    - Extrusive: *ex* (out); *trus* (to thrust or push); ive (describes something that has a tendency to)
- Metamorphic: *meta* (change); *morph* (shape, structure, form); *ic* (adjective, describing word)
    - Foliated: *foli* (leafy); *ate* (noun, naming word)
    - Graphite: *graph* (black lead, to write); *ite* (mineral or fossil)

These word parts subsequently can be used to understand terms in other science courses (e.g., *evapotranspiration*, *laterotrusion*, *trifolium*, *lymphogranulomatosis*, *amorphous*, *excavate*, *ignescent*). These kinds of analytic strategies give students with RD a means to break apart the long unfamiliar words they encounter and better access science content (Bhattacharya, 2006).

***Figure 1.* A graphic organizer for integrating written and visual/symbolic sources of information**



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The academic language of science is not limited to the use of technical terms. Students also need to become familiar with the authoritative rhetorical structure that distinguishes scientific discourse (Snow, 2010). Students may find it difficult to relate to texts in which few, if any, personal pronouns are used and where the author rarely describes personal experiences. Rather, science is based on abstractions in which particular experiences or individual phenomena are generalized through the use of nominalizations (Shanahan & Shanahan, 2008). That is, a verb, adjective, or adverb is transformed into the start of an abstract noun phrase capable of summarizing the event. In some cases, derivational suffixes are used to create the nominalization. Consider the following examples:

- Arteries and veins help circulate blood throughout the body. During *the process of circulating blood,* oxygen and other nutrients are carried to the tissues.
- Some rocks are formed over time as solid particles formerly suspended in a liquid settle and accumulate in layers. S*edimentation* can be accelerated when debris or deposits of coarse sediments divert channels of water over soil. The *channelization of rivers* increases soil *erosion* and the *deposition* of sediments.

In addition to learning word parts, two other strategies can help students understand and construct nominalizations. In the first, teachers create a cloze practice by removing the nominalization from the sentence and teaching students how to complete the sentence by forming the abstract noun phrase (Fang, 2006). Sentence completion tasks formed from the previous examples would appear as follows:

- Arteries and veins help circulate blood throughout the body. During ____________________________________, oxygen and other nutrients are carried to the tissues.
- Some rocks are formed over time as solid particles formerly suspended in a liquid settle and accumulate in layers. ________________ can be accelerated when debris or deposits of coarse sediments divert channels of water over soil. The __________________________ increases soil ________________ and the ________________ of sediments.
- The other approach to helping students understand the academic language of science is to have them rewrite excerpts from science texts in everyday language and, later, transform everyday language into scientific language (Fang, 2006). For example, the scientific version

Gravitational attraction is in direct proportion to the product of the objects' masses and inverse proportion to the square of their distance apart.

can be paraphrased in everyday language:

The pull of gravity is stronger when the objects are heavier and closer together.

Although the latter allows students initially to access the information, it is much less precise. For example, *mass* is not synonymous with *weight* because weight is dependent upon the environment; whereas, mass is not. Cervetti, Bravo, Hiebert, Pearson, and Jaynes (2009) found that narrative story versions of scientific concepts actually led to more misconceptions than those that occur if students read the informational version written in the more typical rhetorical structure of the discipline. Therefore, it is important for students to learn the more difficult skill of transforming information from simple expressions to the academic language of science.

Social Studies

Unlike in science texts, personal perspective is integral to social studies documents and, more specifically, to historical inquiry. Textbooks, the predominate means of conveying social studies content (Sewall, 2000), have been criticized for perpetuating "the belief by many that history is nothing more than a series of facts to be memorized" (Lavere, 2008, p. 5). Indeed, the "facts" contained in textbooks have been documented as changing over time and providing different portrayals of cultures and events that are not always considered to be highly authentic or accurate (Brown & Brown, 2010; Duran & Null, 2009; Maoz, Freedman, & McCauley, 2010; Sanchez, 2007). Rather than treating social studies texts as compendiums of truths written by anonymous authorities, students are expected to analyze the potential biases of the authors to better evaluate actions and events (De La Paz & MacArthur, 2003).

Expert readers will judge the trustworthiness of a text by corroborating the information presented, considering the time and place in which the account was rendered, and checking the source of the material and the purpose for which it was written or recorded (Wineburg, 1991). Reading in social studies, then, is about reconstructing information from multiple situated interpretations. Because this involves an examination of different primary and secondary source documents, historical understanding can prove particularly challenging for students with RD (Ferretti, MacArthur, Okolo, 2001). Consider this portion of Nikita Khrushchev's so-called Secret Speech delivered to the 20th Congress of the Soviet Communist Party on February 25, 1956:

> Comrades, if we sharply criticize today the cult of the individual which was so widespread during Stalin's life and if we speak about the many negative phenomena generated by this cult which is so alien to the spirit of Marxism-Leninism, various persons may ask: How could it be? Stalin headed the party and the country for 30 years and many victories were gained during his lifetime. Can we deny this? In my opinion, the question can be asked in this manner only by those who are blinded and hopelessly hypnotized by the cult of the individual, only by those who do not understand the essence of the revolution and of the Soviet State, only by those who do not understand, in a Leninist manner, the role of the party and of the nation in the development of the Soviet society. (Congressional Record, 1956, p. 9402)

Comprehending this primary source document involves a complex interaction among the historical context, linguistic features of the text, and the vocabulary used to convey the information (Foorman, 2009). Students must have sufficient background knowledge to understand the references to Marx, Lenin, and Stalin. They must also understand that the surface information about moving the Soviet Union away from Stalinism and back toward Leninism belies the subtext of Khrushchev's justifying the arrest and execution of his political rival, a Stalin loyalist, as he attempted to consolidate his own power. The latter information is not a part of the "Secret Speech," so taking it at face value would lead to misunderstandings. Accurate interpretations involve making inferences that connect the content with relevant background knowledge to form a mental model of the situation (Kintsch & Rawson, 2005).

Problems in connecting information across texts are compounded by how the ideas are organized. Reportedly, students demonstrate the most difficulty with understanding and recalling cause-effect relationships (Hare, Rabinowitz, & Schieble, 1989; Richgels, McGee, Lomax, & Sheard, 1982). This is particularly true for students with reading difficulties (Zinar, 1990). Comparison relationships have also been found to challenge students (Englert & Hiebert, 1984; Hare et al., 1989). Constructing coherent mental representations of complex texts is dependent upon students' awareness of the connective words and other cohesive elements that establish the causal, comparative, and other relationships among the ideas (McNamara, 2001).

One approach for assisting students with comprehending multiple social studies texts involves classroom debates (MacArthur, Ferretti, & Okolo, 2002). This combines direct instruction and small group investigations of the topic, including the comparison and contrast of "ways of life" in two different eras (MacArthur et al., 2002). Students are given guiding questions for evaluating the bias of a text and corroborating the sources such as: "Who wrote this evidence? For what purpose was it written" (p. 62-63). In the final stages of the unit, students are divided into small teams to represent different viewpoints on a controversial issue within the topic of the unit. With the use of a planning sheet, the teams prepare arguments in support of their assigned viewpoint and in refutation of the opposite view. The teacher provides clear and explicit instruction to prepare students for several rounds of debate between teams.

Because social studies texts are more likely to draw upon cultural knowledge than material in other disciplines, English language learners (ELLs) with RD often experience pronounced challenges. Vaughn and colleagues (Vaughn et al., 2009) have designed instructional practices to enhance reading comprehension for ELLs with reading difficulties in social studies. Treatment students received 12 weeks of daily multi-component social studies instruction that incorporated explicit vocabulary instruction, use of structured pairing, strategic use of video to build concepts and promote discussion, and use of graphic organizers. Teachers were taught to implement the instructional practices (e.g., vocabulary, big ideas, discourse practices, and content comprehension) and were provided with all necessary materials including lesson plans, overheads and videos. Each of the key elements in the instruction and a brief description of how they might be used by social studies teachers to enhance reading outcomes for students with reading difficulties follows.

Vocabulary instruction. Social studies teachers start lessons by reviewing key concepts and setting the purpose for reading with a 1-2 minute preview of the text as well as a review of previously learned ideas that relate to the upcoming instruction. Teachers also identify key vocabulary words, make connections between each key word and previous knowledge, and link the key word to what students will be reading. During this instruction, students write the word and a simple description of its meaning in their learning logs. Together, teachers and students discuss a visual (e.g., picture, photograph, symbol) that supports each word as it will be used in the reading. The discussion also addresses synonyms for the word as well as the use of the vocabulary word within sentences.

To conclude vocabulary instruction, students work in pairs as they verbally respond to 1-2 questions related to the vocabulary word—first with their partners and then with all partner groups through whole-class discussion. The first question directly relates to the history content. For example, if students are learning the word *conflict*, the first vocabulary question might be: “What led to conflict between the Texas settlers and the Mexican government?” The other questions for discussion are designed to give students opportunities to apply their own experiences. With our sample word *conflict*, the second question might be: “Can you describe a conflict you witnessed in the cafeteria and how it was resolved?”

Structured paired groupings. Another component of the instruction designed by Vaughn and colleagues (2009) addresses cooperative learning more directly. Teachers match more and less proficient readers in pairs so that periodically throughout the instructional sequence, students can turn and talk to their partners. These “turn and talk” opportunities are aimed at discussing the meaning of specific words or concepts and at extending understanding of the big ideas of the social studies unit.

Strategic use of video. In addition to vocabulary and peer support, teachers also show brief, purposeful video clips (2-7 minutes) containing similar content to that of the readings. Specifically, the videos are used to illustrate academic language, introduce key ideas, or link the pictures of key persons or places to the social studies content. To ensure that the link between learning and the video is clear to the students, teachers introduce each clip by previewing one or two focus points on the key concepts. For example, a teacher might introduce a clip on socialism with the focus: “While watching this video consider the perspective on socialism that is presented and be prepared to compare it with the perspective we discussed yesterday.” After students view the video clip, the teacher facilitates a brief class discussion and asks students to respond to the focus point. The sample focus point above might be followed with the discussion question: “How would you compare the perspective on socialism we discussed yesterday with the one presented in the video?”

Teacher-Led or paired student reading. Remember that the purpose for the various instructional components described thus far is to support students’ ability to read for understanding and learning. To explicitly guide students through selected texts, teacher-led read-alouds or partner reading are included in the social studies lesson. Teacher read-aloud activities include modeling of fluent reading, clarifying difficult vocabulary, conducting think-alouds, and periodically checking students’ understanding. When students work in pairs to complete the reading, they take turns reading. The partners also use their learning logs to identify key vocabulary and respond to questions as they read the text.

Use of writing with graphic organizers. The final component of instruction for ELLs with reading difficulties developed by Vaughn and colleagues (2009) involves having students work with their partners to complete a graphic organizer or some other writing activity designed to organize and synthesize the key ideas covered in the lesson. Teachers provide brief instruction to students about the key concepts and explain how to complete the graphic organizer or other activity. Then, students complete the graphic organizer by working collaboratively with their partners to identify and summarize the most important information (see Figure 2 for an example).

***Figure* 2. Graphic organizers to support expository text comprehension**

The Earliest Texans

were

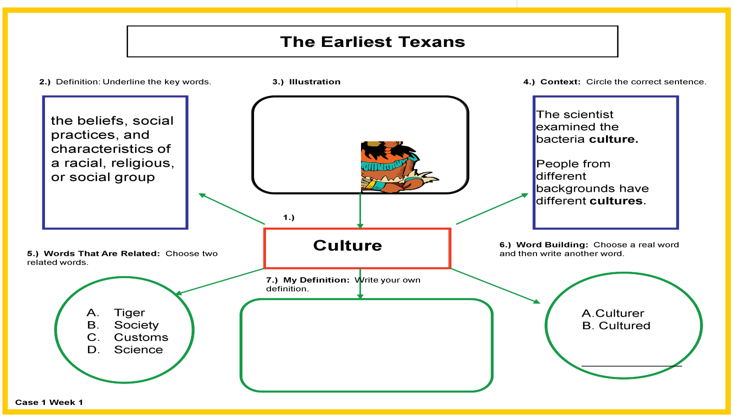
hunters who later began to farm and settle in communities

When	Way of life:	How they survived:	How they lived:	Children and grandchildren or their_________
First Trail to Texas: 50,000 years ago	Followed herds of woolly mammoths and giant bison	Animals provided food, clothing and shelter.	Came over a land bridge called __________ that connected Asia and North America	Moved southward
Learning About the Past: 10,000 years ago	Followed animal herds	Objects made by these people or _________ tell us that they hunted herds of animals and used the meat, bones, and hides.	Traded flint from an open pit mine or_________	Arrived in Texas
Changes in Ways of Life: 2,000 years ago	Way of life or _________ changed as the giant animals died out or became extinct.	They began to grow their own food or practice __________. Baskets, pottery, and dried foods became __________.		Known as ________ ________

________provide information about the earliest Texans. About 10,000 years ago the _______________ of the first people in North America arrived in Texas. They hunted animals for food, clothing, and shelter. They also traded flint from a______ in the Texas Panhandle. About 2,000 years ago their______ changed and the earliest Texans began practicing ___________.

Vocabulary List

agriculture
artifacts
trading goods
culture
descendants
Native Americans
quarry



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Summary

Classroom teachers of students in grades 4 through 12 will recognize that a growing number of these students fail to adequately understand text, and most students with LD and RD need additional supports to learn from their content area texts. Accessing and understanding text is essential as it promotes the requisite conceptual knowledge of a subject. A prevailing concern of content area teachers is that they have so many idea units to teach that they are concerned that vocabulary and comprehension instruction might derail content coverage. Teachers of math, science, and social studies can integrate instructional practices within their content area instruction to enhance reading comprehension without sacrifice content learning. On the contrary, academic literacy is intended to better facilitate students' reading for understanding and learning of content area information.

As the examples provided here highlight, some practices (e.g., explicitly teaching vocabulary, providing comprehension strategy instruction, increasing the amount of extended discussions about words and texts) are widely applicable. However, they might take on a different form or function when applied to a particular subject. The reason for this is that each content area has unique needs for supporting students as they work with the discipline-specific language structures, words, and methods of conveying concepts. By providing contextualized applications of comprehension instruction, this article might be a first step in helping content area teachers support students who have reading difficulties and learning disabilities.

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Author Note

Deborah K. Reed, The University of Texas at El Paso; Sharon Vaughn, The Meadows Center for Preventing Educational Risk, The University of Texas at Austin.

Correspondence concerning this article should be addressed to Deborah K. Reed, The University of Texas at El Paso, 500 W. University Ave., Ed 901B, El Paso, TX 79968. Email: dkreed@utep.edu.