

answers. So the SRE for this group of fifth graders reading the first chapter of *Indian School* looks like this:

Prereading:	Motivating Preteaching Vocabulary Prequestioning
During-reading:	Reading to Students Guided Reading
Postreading:	Small-Group Discussion Answering Questions Large-Group Discussion

Several characteristics of this SRE are particularly worth noting. For one thing, it is considerably more substantial than the SRE for *Frindle*. This is a sturdy structure, intended to support students successfully reading and learning from a more challenging text. For another, you selected the activities you did based on your assessment of your fifth-grade students, the selection they were reading, and the purpose of their reading it. And even though this combination of prereading, during-reading, and postreading activities was specifically designed for this particular combination of students, text, and purpose, it is only one of a number of combinations you could have selected. There is no unique combination of pre-, during-, and postreading activities that constitutes the ultimate or only choice. There are usually a number of choices that will be appropriate in a particular situation—along with an even larger number that will *not* be appropriate.

A Differentiated SRE for a Challenging Science Text

Now consider the planning you might do and the SRE you might construct for a chapter on waves in a fifth-grade science text (Hackett & Moyer, 1991). This is the same class as before—a class that includes six English language learners (four of whom speak Spanish as their native language and two of whom speak Vietnamese) whose conversational English is quite good. Nevertheless, they still need plenty of assistance in working with technical and academic language. Somewhat similarly, your native English speakers also need some assistance, though not as much as your English learners.

After reading the chapter, you decide that the important reading purposes are for students to understand the concept of waves, note some of the

properties of waves, describe several different types of waves, and come away with the understanding that waves are important physical phenomena, a scientific topic they will meet again and learn more about in later grades. Thinking again about your students, you decide that they can handle the chapter, with your help. You also realize that your English learners will need more help than your native speakers, and that you therefore need to construct a differentiated SRE.

Again considering the chapter, you identify the specific concepts you want to stress, and you note that the chapter contains some material students do not need to deal with at the present time. You also note that the chapter is 10 pages and about 3,000 words long, and you estimate that it will take most of your native speakers 20 to 30 minutes to read through it once and most of your English learners perhaps 45 minutes to do so. You also realize, however, that reading it through once is not going to result in the sort of learning you want students to achieve, regardless of how proficient their English is.

All this thinking—these considerations about your students, the chapter, and the purposes of reading it—is in your mind as you plan the SRE. With these considerations in mind, you come up with a basic set of pre-, during-, and postreading activities that all students will participate in. But you also come up with additional activities intended for only your English learners. Figure 5.3 shows an outline of this SRE, with the additional activities for English learners in italics.

For the prereading that all students will do, you decide to include a motivational activity that will relate the topic of waves to something they are familiar with and can readily see and feel. You include a motivating activity because you believe that some sort of motivation is almost always a good idea and because students will not automatically be interested in waves. For the activity, you have students demonstrate a wave by arranging themselves in a line across the front of the room and then successively standing up and sitting down—much as fans do at a football game. Following this demonstration (students will probably have to practice the wave several times before it becomes rhythmic and looks very much like a wave), you point out that all waves have certain characteristics, among which are *amplitude* and *frequency*, two characteristics of waves that they will learn about. You then briefly explain these concepts and have students demonstrate several different wave forms, changing the amplitude of their wave by raising both hands rather than standing up and changing its frequency by standing up and sitting down or raising and lowering their hands at different rates. Finally, you draw several wave forms on the board to illustrate the different amplitudes and frequencies waves can have.

FIGURE 5.3 Differentiated scaffolded reading experience for a chapter on waves

Planning		
<i>Students</i>	<i>Selection</i>	<i>Purpose</i>
Thirty fifth graders, including six English language learners	Chapter on waves in a fifth-grade science text	To understand and recall the concepts of waves, wave particles, and typical waves
Implementation		
<i>Prereading Activities</i>	<i>During-Reading Activities</i>	<i>Postreading Activities</i>
Motivating: Acting out the motion of a wave.	Reading to Students: Read the first section of the chapter aloud to students.	Discussion: Small groups discuss the chapter and add information to the discussion guide you gave them. <i>English learners may have dual-language discussion guides.</i>
Preteaching of Concepts: Teaching the concepts of amplitude and frequency.	Modifying the Text: Make an audiotape of the chapter available to English learners.	Reteaching: Reteach and extend major concepts as necessary. <i>English learners may need more reteaching.</i>
Building Text-Specific Knowledge: Use the headings in the chapter to show its organization and have students predict some of its content.	Guided Reading: Students read the chapter silently, referring to the chapter headings on the board or <i>their dual-language outline</i> as they do so.	Writing: Have students write an imaginative tale, perhaps one in which a wave goes berserk, and share their writing with the class. <i>English learners may or may not share orally.</i>
Using Students' Native Language: <i>Give English learners an outline of the chapter with headings in both English and Spanish or Vietnamese.</i>		

Motivating students also might include stressing that waves are an important scientific concept; reminding them that they are already familiar with some sorts of waves, such as those in oceans or lakes; and asking them what other sorts of waves play parts in their daily lives. Microwaves and television waves are likely responses.

Next you move to directly teaching the concepts of amplitude and frequency as they apply to waves. You begin by writing *amplitude* and *frequency* on the board; then you define each concept. As you give each definition, you

try to act out the meaning with gestures and sketch a visual representation on the board. Because the amplitude of a wave is the height of the wave from its origin to its crest, your drawing of a wave includes a line from the base of the wave to its highest point. This, you explain, is the wave's amplitude. Because the frequency of a wave—the number of cycles of the wave that pass through a given point in a certain amount of time—is a dynamic concept, it is challenging to illustrate. But a memory from your childhood suggests an approach. You show the students an extended “slinky.” Then, you draw a line on the board and, with a student's help, gradually pull the slinky through it, counting each circle on the slinky as it crosses the line. When you finish counting, you explain that you have just demonstrated a wave's frequency. You then remind students that their own wave had amplitude and frequency; its amplitude was perhaps a foot or two, and its frequency might have been 10 cycles a minute. Finally, you might ask students if they know of other words or phrases that express concepts similar to amplitude and frequency. (“Height,” “size,” and “how often something happens” are possible responses.) Of course, these brief activities have not fully taught these complex concepts, but having had this instruction, students will be better prepared to more fully understand them when they come up in the chapter.

To further prepare students to deal with both the content and the organization of the chapter, you next write the headings and subheadings from the chapter on the board, being sure to preserve the features of the text used to show subordination: For example, the superordinate topics might be printed all in capital letters and left justified, while the subordinate topics might have just the first letter of each word in capitals and be indented. Then you ask students to identify the superordinate and subordinate topics by noting their placement and the type of letters used. Finally, you ask students to brainstorm what they can learn just from reading the headings. For example, the first heading, “How Do Waves Transfer Energy?” clearly indicates that one thing waves do is transfer energy. You write this on the board and continue through the rest of the outline with the class, jotting down information students glean from the outline.

As an additional prereading activity for your English learners, you (or a student or community resource person) might create an outline that shows the chapter headings in both English and Spanish and another that shows the headings in both English and Vietnamese; you would then briefly go through each of these with your English learners. Note that you will need some other activity for your native English speakers at this time—perhaps gathering illustrations of waves and making a bulletin board display; perhaps some independent reading or journaling.

For during-reading activities that all students will undertake, you might plan to read the first section of the chapter aloud to ease them into it. After the first section, your native English speakers will finish the chapter by reading silently to themselves, referring to the list of headings on the board to be sure they understand the structure of the chapter. Before students begin their listening or reading, however, you remind them that they should not try to learn everything in the chapter, but should focus their attention on the topics discussed in the outline—the properties of waves and the different sorts of waves described.

Next you consider during-reading activities for your English learners. Because you have discovered that the six English learners in your class do particularly well when they can both read and listen to a challenging text, the major additional during-reading activity you plan is having students listen to a tape and follow along in the book. You carefully prepare the tape, reading slowly and enunciating clearly, and listen to the finished tape to be sure it is sharp and clear. Even so, you remind your English learners that they can stop and replay the tape whenever they need to, and that they will probably need to read or listen to much of the chapter more than once. You also encourage them to use the dual-language outlines of the chapter to track their progress and further their understanding. Because your English learners will require more time to read the chapter, you will again need to have an additional activity ready for your native speakers.

In deciding on postreading activities for all students, you take into account the fact that the chapter is challenging, and that you definitely want students to remember the major concepts dealt with in it. Therefore, you prepare and hand out a discussion guide that parallels the chapter outline you wrote on the board, and give students 20 minutes to discuss the concepts in it in small groups. You might or might not provide a dual-language version of the discussion guide. Each group is asked to focus on a particular concept and to select one or two important facts about that concept that they will teach to the rest of the class. You are careful to place the English learners in groups in which there are students who will be supportive of their participation. Afterward the class comes back together, and each group reports one piece of information they discovered about waves. Because it is likely that some students will need extra work with some concepts in the chapter, you might offer to join any group in which students expressed such a need.

Next, because many of your students have a creative side and because you believe that waves and related concepts might prompt interesting creative writing or other creative activities, you suggest that students work independently

or in small groups to create stories, poems, drawings, and perhaps even dramas in which waves play central roles. One idea you might suggest, in case some students need a prompt to get started, is that they create something in which a wave goes berserk. (Note that you may need to teach the word *berserk* to most students.) Finally, once students have completed their creations, they either present them orally or post them around the room.

There are no totally separate postreading activities for your English learners. However, you realize that English learners are particularly likely to need extra work on some of the concepts covered, and you are prepared to spend extra time with them if need be. Similarly, you understand that some English learners may not want to do oral presentations; at the same time, you know that if they do oral presentations and are successful at them it will be a very positive experience. You therefore monitor your English learners carefully as they are working on their creative writing endeavors and offer guidance about making oral presentations on an individual basis.

All in all, most students in the class might spend three or four days with this SRE, and some English language learners as well as some other students (not all of your native English speakers are likely to be equally strong readers) might spend an additional day. Your purpose in designing these activities, and the purpose in planning and carrying out any SRE, is a straightforward one: You want to do everything possible to ensure that *all* students have a successful reading experience. As we suggested before, we believe that a successful reading experience is one in which students glean and construct meaning from the selection, learn from it, respond to it, and enjoy it. Importantly, our goal includes students' realizing that they have been successful and recognizing that they have dealt competently with the selection. Of course, not all students will be totally successful with every selection they read, but as much as possible, students need to conclude their reading of a selection feeling that they worked on it, that the effort they put into it paid off in at least partial success, and that similar effort in the future will result in similar payoffs. If students are to become lifelong readers who not only *can* read but voluntarily *choose to* read, they must believe in themselves as readers.

Concluding Remarks

An SRE is a particular kind of lesson plan that relies heavily on the concept of scaffolding and on a number of other instructional concepts developed and validated over the past three decades (Fitzgerald & Graves, in press; Graves

& Graves, 2003). More specifically, an SRE is a set of prereading, during-reading, and postreading activities designed to assist a particular group of students in successfully reading, understanding, learning from, and enjoying a particular reading selection. In our judgment, SREs can be an extremely important part—albeit only one part—of a comprehensive and balanced reading and language program for both English language learners and native English speakers.

We believe that SREs should be used frequently in multilingual classrooms. They should be used whenever the class as a whole or a sizable group of students within the class is reading a text that they will be more successful with if they get some assistance from you. SREs markedly increase the likelihood that students' reading experiences will be successful and rewarding, and repeatedly engaging in successful and rewarding reading experiences will produce students who are better readers, are more knowledgeable, more fully understand the topics they read about, and are more likely to become independent and lifelong readers. Success breeds success.

Finally, there is the matter of how much scaffolding to provide. From a conceptual standpoint, we believe that the question has a straightforward answer: You provide enough scaffolding that students will succeed with the reading they are asked to do, but not so much that they do not have to work to achieve that success. From a practical standpoint, however, we believe that the answer is anything but straightforward; in fact, it is in answering this question that much of the art of teaching comes into play. As a professional, you must first become as informed as possible about your students, the subjects you teach, the texts you use, and the goals you have for your students. Then, you need to both ask and answer the question of how much scaffolding it will take to lead those students to successful reading experiences while at the same time challenging them enough to keep them actively involved, in ways that will produce real learning.

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