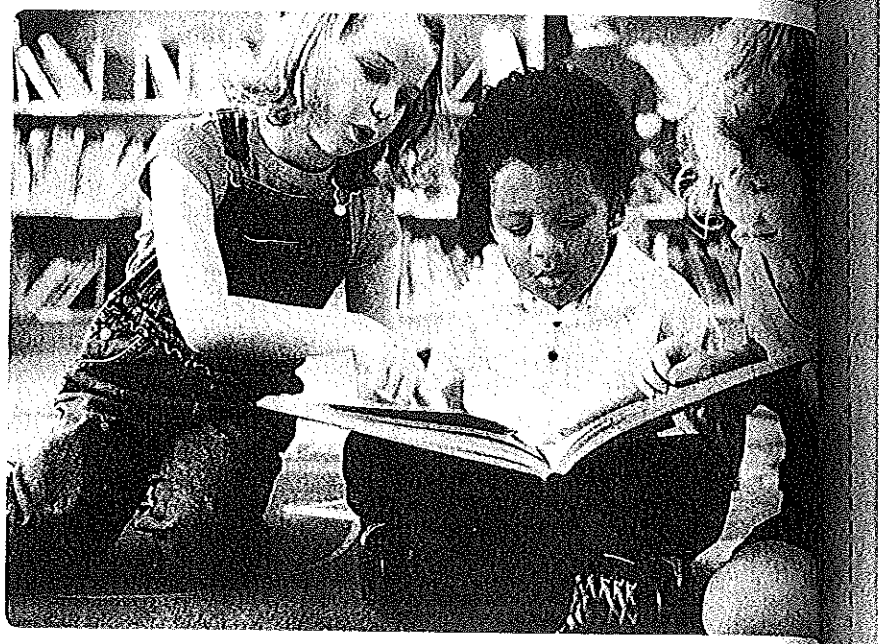

Think about a time when you had to read a challenging text, such as a graduate-level chapter or a computer manual. Because this was required reading, you probably set yourself up for success by sitting in a good chair by proper lighting, with a highlighter, pen or pencil, and sticky notes. As you read, you took notes, highlighted important information, and tagged material that you wanted to find quickly at a later time. If you came across something you didn't understand, you tried a number of different things, such as rereading, checking the text's glossary, trying to summarize previously read material, generating some questions, using text structures, and/or checking class notes or another source for clarification (McLaughlin, 2010). Why did you employ these learning strategies while reading? Were they taught to you, or did you develop them naturally because you are an avid reader? What other strategies do you employ to help you read and learn more effectively?

Background

As introduced in Chapter 3, researchers have found that information is retained and connected in the brain through "mental pathways" that are linked to an individual's existing schemata (Anderson, 1984; Barnhardt, 1997). If schemata for a particular topic are well developed and personally meaningful, new information is easier to retain and recall, and proficient learners initiate and activate their associations between the new and old learning. In cognitive theory, initiation and activation are described as the mental processes that enhance comprehension, learning, and retention of information. Teachers of English learners sometimes have difficulty determining their students' proficiency with learning strategies, especially in the beginning stages of their acquisition of English. Teachers may misdiagnose English learners' lower *English* skills by regarding them as symptoms of poor or underdeveloped *learning* skills. In this chapter, we discuss the importance of teaching and providing practice with a variety of learning strategies that facilitate the learning process. We also suggest that all students, including English learners, benefit from questions and tasks that involve higher levels of thinking. In order to accomplish these goals, teachers must carefully scaffold instruction for those who need additional support.

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SIOP® FEATURE 13:

Ample Opportunities Provided for Students to Use Learning Strategies

There is considerable evidence from research over the past four decades supporting the assertion that explicitly teaching a variety of self-regulating strategies improves student learning and reading (August & Shanahan, 2010; Dole, Duffy, Roehler, & Pearson, 1991; Pressley, 2000; 2002; Snow, Griffin, & Burns, 2005; Vogt & Nagano, 2003). Many of these research studies focused on highly effective readers and learners who use a variety of strategies in an interactive and recursive manner. Paris (2001, p. 89) suggests that self-regulated learning "emphasizes autonomy and control by the individual who monitors, directs, and regulates actions toward goals of information acquisition, expanding expertise, and self-improvement." Chamot (2009, p. 57) suggests that learning strategies are important because:

- Good language learners use task-appropriate and flexible strategies.
- Students who are mentally active and strategic are better learners.
- Learning strategies are particularly effective with academic tasks.
- Learning strategies can be taught and learned.
- Learning strategies can transfer to new tasks.

As English learners develop English proficiency, it is important that their language, literacy, and content instruction include a focus on learning and practicing a variety of learning strategies (Chamot, 2009; Dymock & Nicholson, 2010; National Institute of Child Health and Human Development, 2000; Vogt, Echevarría, & Short, 2010). These strategies can be classified as follows:

1. **Cognitive Learning Strategies.** These strategies help students organize the information they are expected to learn through the process of self-regulated learning (Paris, 2001). Cognitive strategies are directly related to individual learning tasks and are used by learners when they mentally and/or physically manipulate material, or when they apply a specific technique to a learning task (Slater & Horstman, 2002). Examples of cognitive strategies include the following (McLaughlin, 2010; Vogt & Shearer, 2011):
   - Previewing a story or chapter before reading
   - Establishing a purpose for reading and/or learning
   - Consciously making connections between personal experiences, beliefs, and feelings and what is learned while reading
   - Using mnemonics
   - Highlighting, underlining, or using sticky notes to identify important information
   - Taking notes or outlining
   - Reading aloud for clarification

- Rereading to aid comprehension
- Mapping information or using a graphic organizer
- Identifying key vocabulary
- Identifying, analyzing, and using varied text structures

2. **Metacognitive Learning Strategies.** The process of purposefully monitoring our thinking is referred to as metacognition (Baker & Brown, 1984). The use of metacognitve strategies implies awareness, reflection, and interaction; and strategies are used in an integrated, interrelated, and recursive manner (Dole, Duffy, Roehler, & Pearson, 1991). Studies have found that when metacognitive strategies are taught explicitly, reading comprehension is improved (Duffy, 2002; Snow, Griffin, & Burns, 2005; Vogt & Nagano, 2003). Examples of metacognitive learning strategies include:
   - Predicting and inferring
   - Generating questions and using the questions to guide comprehension
   - Monitoring and clarifying ("Am I understanding? If not, what can I do to help myself?")
   - Evaluating and determining importance
   - Summarizing and synthesizing
   - Making mental images (visualizing)
3. **Language Learning Strategies.** As with other aspects of learning, effective language learners consciously use a variety of strategies to increase their progress in speaking and comprehending the new language (Cohen & Macaro, 2008). Examples of language learning strategies include:
   - Applying basic reading skills, such as previewing, skimming, scanning, and reviewing
   - Analyzing and using forms and patterns in English, such as the *prefix* + *root* + *suffix* pattern
   - Making logical guesses based on contextual and syntactic information
   - Breaking words into component parts
   - Purposefully grouping and labeling words
   - Drawing pictures and/or using gestures to communicate when words do not come to mind
   - Substituting a known word when unable to pronounce an unfamiliar word
   - Self-monitoring and self-correcting while speaking English
   - Paraphrasing
   - Guessing and deducing
   - Imitating behaviors of native English speaking peers to successfully complete tasks
   - Using verbal and nonverbal cues to know when to pay attention

Other language learning strategies include those described as social-affective, such as seeking out conversation partners, taking risks with the new language,

practicing English when alone, and combatting inhibition about using English by having a positive attitude. Another important social-affective strategy is asking for clarification, something that is often difficult for English learners.

Whichever sets of strategies are emphasized, learned, and used, it is generally agreed that they can be taught through explicit instruction, careful modeling, and scaffolding (Duffy, 2002). Additionally, Lipson and Wixson (2008) suggest that just teaching a variety of strategies is not enough. Rather, learners need not only *declarative* knowledge (What is the strategy?) but also *procedural* knowledge (How do I use it?) and *conditional* knowledge (When and why do I use it?). Also, it is important that students practice and apply strategies with different tasks and genres.

When teachers model strategy use (such as through think-alouds) and then provide appropriate scaffolding during practice sessions, students are more likely to become effective strategy users (Fisher, Frey, & Williams, 2002; Pressley & Woloshyn, 1995).

Things to Remember about Teaching Learning Strategies

- Many English learners who have been well schooled in their home language probably have developed a variety of learning strategies that they can talk about once they learn the English terms for them. Therefore, it's important to know your students' educational backgrounds and their native language literacy proficiency so you can be aware of what they already know and can do regarding strategy use in their home language.
- Many strategies transfer to learning in the new language. For example, once you know how to find a main idea in a text written in your home language (L1), you can do it with a text in your target language (L2). Likewise, if you know how to make predictions in your L1, you can engage in making predictions in your L2.
- The Common Core State Standards require that students "adapt their communication in relation to audience, task, purpose, and discipline. They set and adjust purposes for reading, writing, speaking, listening, and language uses as warranted by the tasks" (© Copyright 2010. National Governors Association Center for Best Practices and Council of Chief State School Officers. All rights reserved.). This is precisely what it means to be an effective user of reading and language strategies.
- Remember that having students identify and label strategies is not the end goal (Baker, 2008). Instead, the desired outcome is for students to engage in a variety of learning strategies while they're reading, listening, writing, speaking, and working with other students.
- McKeown, Beck, and Blake (2009) found that some students spend so much time focusing on strategic actions that they seem less likely to connect key ideas in the text. "Focusing on strategies during reading may leave students less aware of the overall process of interacting with text, especially in terms of the need to connect ideas they encounter and integrate those ideas into a coherent whole" (p. 246). This can happen when teachers mistakenly focus too much attention on the identification of separate learning strategies, such as, "Today, our goal

is to make predictions. Tomorrow, we'll work on making connections." Effective learners use sets of strategies, coordinate them, and shift when appropriate. If one thing doesn't work, good strategy users try something else. What's important is having an overall idea of what it means to be strategic; that is, how to adapt and combine individual strategies within a plan.

- The ultimate goal is for students to develop independence in self-monitoring and self-regulation through practice with peer-assisted and student-centered strategies. Many English learners, however, have difficulty initiating an active role in using these strategies because they are focusing mental energy on their developing language skills. Therefore, effective SIOP teachers scaffold English learners by providing many opportunities for them to use a variety of learning strategies that have been found to be especially effective.
- "[T]he bottom line is that we want our students to do more than recite a list of strategies; we want them to actually *use* the strategies, unprompted—and to do so without having to record the event on a sticky note" (Marcell, DeCleene, & Juettner, 2010, p. 687). So give them time to get good at strategy use. They do not have to learn a new strategy each day. One per week or two is better, especially if they can try to apply the strategies with different texts and genres.
- To assist students in becoming effective strategy users, see the section, Teaching Ideas for Strategies, later in this chapter. In particular, note the following instructional activities: Directed Reading-Thinking Activity (DR-TA), SQP2RS (Squeepers), Question-Answer Relationships (QAR), and Questioning the Author (QtA). Also, see Mr. Montoya's lesson on the rainforest in this chapter, and determine which cognitive, metacognitive, and language learning strategies his lesson incorporates.

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SIOP® FEATURE 14:

Scaffolding Techniques Consistently Used, Assisting and Supporting Student Understanding

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Click on Videos, then search for "Scaffolding" to see an example of scaffolding.

Scaffolding is a term coined by Jerome Bruner (1983) that is associated with Vygotsky's (1978) theory of the Zone of Proximal Development (ZPD). In essence, the ZPD is the difference between what a child can accomplish alone and what he or she can accomplish with the assistance of a more experienced individual. The assistance that is provided by a teacher is called *scaffolding.*

Pearson and Gallagher (1983) described ZPD and scaffolding as the "gradual release of responsibility" (GRR) as it relates to classroom practices. Madeline Hunter (1982) used somewhat different terms to describe the gradual release of responsibility, but her instructional cycle was similar: Input (focused teaching), Demonstration (similar to modeling), Guided Practice, and Independent Practice. Teachers scaffold instruction when they provide substantial amounts of support and assistance in the earliest stages of teaching a new concept or strategy, and then gradually decrease the amount of support as learners acquire experience through multiple

practice opportunities with peers. One of the goals of the Common Core State Standards is that students will be able to comprehend independently complex texts across a variety of disciplines. Therefore, it is essential for all students, including English learners, to have appropriate scaffolded instruction (as needed) that leads to eventual independence.

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Click on Videos, then search for "Modeling" to see a teacher describe how her instructional sequence promotes the gradual release of responsibility.

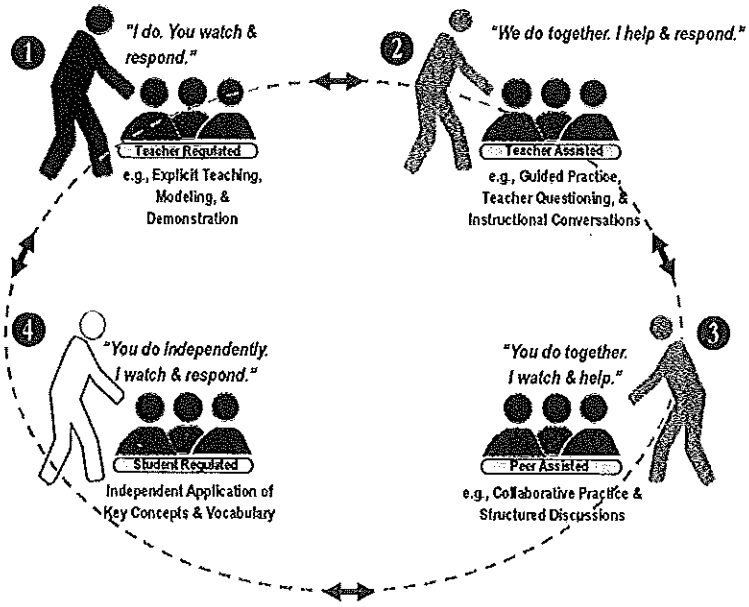
During a lesson, the gradual release of responsibility is manifested when teachers consciously include the following practices (adapted from Brown, 2008, p. 541):

- Emphasize the role of personal choice, effort, and persistence in enacting learning strategies;
- Motivate students' strategy use by showing how applying strategies improves comprehension and learning;
- Highlight the vital role of prior knowledge activation and connection in learning;
- Explain the benefits of strategy use in general and the value of using specific strategies;
- Mentally model (e.g., think-aloud) to make thinking transparent to students;
- Provide guided and independent practice so that students learn to use strategies when cued by a diverse array of goals, needs, task demands, and texts;
- Promote independent strategy use by gradually shifting responsibility for strategy application to students.

There have been a number of graphics created to represent the gradual release of responsibility (GRR) model as initially conceptualized by Pearson and Gallagher (1983). Do a Web search for "gradual release of responsibility" and you will find several interesting variations. What has been mostly consistent among these variations is that a lesson has "phases" that move from one to another. What has been consistently absent from these charts is teaching that is recursive. The intent of the GRR model is to move from reliance on the teacher to student independence in applying key content concepts and vocabulary, but as we all know, a lesson may not move smoothly from one phase to the next.

Here, we offer a different way of looking at GRR that has at its center recursive teaching that is essential for English learners and struggling students (see Figure 5.1). After explicitly teaching a concept (*I do. You watch & respond.*), students practice what has been taught with assistance from the teacher (*We do together. I help & respond.*). Students who are successful can then practice with other students, with minimal supervision (*You do together. I watch & respond.*). For some students it may be necessary to take a step back and re-teach and model before moving again to supported practice. Of course, the goal for all students is independent application of key concepts and vocabulary (*You do independently. I watch & respond.*) However, the process is not linear and it requires differentiated teaching, enabling those who can move forward to do so. But for those who need additional modeling and support, opportunities are provided.

FIGURE 5.1 Scaffolding: Gradual Increase of Student Independence



Reproduction of this material is restricted to use with Echevarría, J, Vogt, M.E., & Short, D (2012). Making content comprehensible for English learners. The SIOP Model (4th Ed.) Boston: Pearson/Allyn & Bacon.

Three Types of Scaffolding

Three types of scaffolding can be used effectively with English learners: Verbal, Procedural, and Instructional.

1. **Verbal Scaffolding.** Teachers who are aware of English learners' existing levels of language development use prompting, questioning, and elaboration to facilitate students' movement to higher levels of language proficiency, comprehension, and thinking. Effective teacher–student interaction promotes confidence when it is geared to a student's language competence. The following are examples of verbal scaffolding:
   - **Paraphrasing.** This is restating a student's response in another form or in other words to clarify and model correct English usage.
   - **Using "think-alouds."** These are carefully structured models of how effective strategy users think and monitor their understandings (Baumann, Jones, & Seifert-Kessell, 1993). For example, when teaching students how to preview a chapter, the teacher might think aloud as follows: "When I'm preparing to read a chapter or article, I ask myself, 'What is the main concept I'm supposed to learn? If I look at the big bold heading at the top of the page, I'll get an idea. The heading might be black, or it could be another color. I see here that it's _____.' Now I need to look at the other headings on the pages to see if they will help me determine what is especially important. Usually I think about what I already know about the topic. If I know something about it, it helps me understand better."

- **Reinforcing contextual definitions.** An example is "Aborigines, the people native to Australia, were being forced from their homes." The phrase "the people native to Australia" provides a partial definition of the word "Aborigines" within the context of the sentence.
- **Providing correct pronunciation by repeating students' responses.** When teachers repeat English learners' correct responses, enunciating carefully and naturally, students have an additional opportunity to hear the content information, pronunciation, and inflection. However, for students to internalize the gentle corrections, research has shown that the focus should be on form. Saunders and Goldenberg (2010) suggest that dedicating time to work on pronunciation may be beneficial.
- **Slowing speech, increasing pauses, and speaking in phrases.** Teachers provide scaffolding for English learners' language acquisition when they slow down the rate of speech, pause between phrases, and allow students the wait time they may need to process information in English (see Chapter 4 for more information about Comprehensible Input).
- **Eliciting more language and information from the students.** Students often provide one- or two-word responses to teacher questions. Teachers then elaborate. Instead, teachers can ask students to add on, tell more, or explain their ideas more fully, giving students the chance to advance their language skills.

2. **Procedural Scaffolding.** Effective teachers also incorporate instructional approaches that provide *procedural scaffolding*. These approaches include, but are not limited to, the following:
   - Using an instructional framework that includes explicit teaching, modeling, and guided and independent practice opportunities with peers, and an expectation for independent application;
   - One-on-one teaching, coaching, and modeling;
   - Small-group instruction with children practicing a newly learned strategy with another more experienced student;
   - Partnering or grouping students for reading and content activities, with more experienced readers assisting those with less experience.
3. **Instructional Scaffolding.** Teachers use *instructional scaffolding* to provide English learners with access to content and language concepts. Examples include:
   - Graphic organizers that are used as a prereading tool to prepare students for the content of a textbook chapter. The organizer can also be used to illustrate a chapter's text structure, such as comparative or chronological order (Vogt & Echevarría, 2008).
   - Models of completed assignments are instructional scaffolds, too. Teachers can show students sample products, such as posters, booklets, podcasts, and the like, to give them a clear picture of their goal.

As you begin to write SIOP lesson plans, keep this in mind: "A scaffold is a temporary structure that is constructed to help someone complete a task that would otherwise be too difficult to do alone. We use scaffolds frequently in real life. We see scaffolds

that are assembled to facilitate erecting or repairing a building; we see scaffolds used by painters to reach areas inaccessible without them; we see scaffolds dangling from high-rise offices that allow window washers to undertake a task unimaginable without such a device. But when the job is completed, scaffolds are dismantled; they are temporary structures" (Buehl, 2006, p. 1). Most important is that scaffolds in the classroom are used to provide access to grade-level texts and complex concepts. The release of verbal, procedural, and instructional scaffolds is gradual until student independence has been achieved.

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SIOP® FEATURE 15:

A Variety of Questions or Tasks That Promote Higher-Order Thinking Skills

Another way that effective SIOP teachers can promote strategy use is by asking questions and providing tasks that promote critical thinking (Fordham, 2006). More than fifty years ago, Benjamin Bloom and colleagues (1956) introduced a taxonomy of educational objectives that includes six levels: Knowledge, Comprehension, Application, Analysis, Synthesis, and Evaluation. This taxonomy was formulated on the principle that learning proceeds from concrete knowledge to abstract values or from the denotative to the connotative. For decades, educators have adopted this taxonomy as a hierarchy of questioning that, when used effectively in the classroom, elicits varied levels of student thinking.

In 2001, D. R. Krathwohl (who originally worked with Bloom) and colleagues published a revised taxonomy: *Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives* (see Anderson & Krathwohl, 2001). In the revised taxonomy the six levels include (simplified here):

1. Remember
   a. Recognizing
   b. Recalling
2. Understand
   a. Interpreting
   b. Exemplifying
   c. Classifying
   d. Summarizing
   e. Inferring
   f. Comparing
   g. Explaining
3. Apply
   a. Executing
   b. Implementing
4. Analyze
   a. Differentiating
   b. Organizing
   c. Attributing

5. Evaluate
   a. Checking
   b. Critiquing
6. Create
   a. Generating
   b. Planning
   c. Producing

Webb (1997) developed a similar, but more complex system and criteria for aligning standards, teaching, and assessment. The Depth of Knowledge (DOK) model analyzes the cognitive expectations of standards, academic tasks, and assessments. Each DOK level reflects increasingly sophisticated cognitive processes. What distinguishes DOK from Bloom's Taxonomy (and other similar taxonomies) is that DOK relates knowledge levels to curricular activities and assessment in particular content areas (language arts, science, and mathematics). The term *knowledge* broadly encompasses procedural knowledge, declarative knowledge, and conditional knowledge.

There are four levels of the Depth of Knowledge Model, and brief descriptions of each follow. (For more information, see *www.wcer.wisc.edu/WAT/index.aspx*.)

- **Level 1: Recall.** Requires recall of a fact, information, or procedure (such as identify, list, label, illustrate, measure, report, define, draw, calculate, arrange, match, use, state, repeat, tell, recite)
- **Level 2: Skill/Concept.** Requires both comprehension and subsequent processing of text (such as infer, categorize, collect and display, organize, construct, modify, predict, interpret, distinguish, compare, relate)
- **Level 3: Strategic Thinking.** Requires reasoning, developing a plan or a sequence of steps, some complexity, and more than one possible answer (such as revise, develop a logical argument, assess, apprise, use concepts to solve non-routine problems, compare, critique, formulate, investigate, hypothesize, differentiate, cite evidence)
- **Level 4: Extended Thinking.** Requires thinking and processing multiple conditions of the problem (such as design, connect, synthesize, apply concepts, critique, analyze, create, prove)

Whichever taxonomy, such as Bloom's or Anderson and Krathwohl's, or descriptive framework, such as Webb's DOK, teachers choose to use when designing lessons, it is important to carefully plan higher-order questions and tasks prior to lesson delivery. It is just too difficult to think of them on the spot when you're teaching. Researchers have found that of the approximately 80,000 questions the average teacher asks annually, 80% of them are at the literal level (Gall, 1984; Watson & Young, 1986). This is especially problematic with English learners. As children are acquiring proficiency in English, it is tempting to rely on simple questions that result in yes/no or other one-word responses. It is possible, however, to reduce the linguistic demands of responses while still promoting higher levels of thinking. For example, in a study of plant reproduction, the following question requires little thought: "Are seeds sometimes carried by the wind?" A nod or one-word response is almost automatic if the question is understood. However, a higher-level question such as the

following requires analysis, though not a significant language demand: "Which of these seeds would be more likely to be carried by the wind: the round one or smooth one? Or this one that has fuzzy hairs? Why do you think so?" Encouraging students to respond with higher levels of thinking requires teachers to consciously plan and incorporate questions and tasks at a variety of levels.

Teaching Ideas for Strategies

In the section that follows, you will find some teaching ideas to help you with preparing SIOP lessons.

- **Digital Storytelling** (Sylvester & Greenidge, 2009). A digital story combines old and new literacies as students speak, write, and create a multimedia text consisting of still images and a narrated soundtrack. Especially appealing to students who struggle with writing, including some English learners, digital stories provide an exciting, hands-on, and innovative way to create stories. Sylvester and Greenidge (2009) suggest that effective digital stories combine seven elements: point of view; a dramatic question; emotional content; economy (economizing language); pacing (rhythm to hold interest); the gift of voice; and soundtrack (music). Note that these require students to engage with cognitive, metacognitive, and language learning strategies. The authors also include in their article a wide variety of Web sites for creating digital stories, including the Center for Digital Storytelling at *www.storycenter.org*. There are great examples, articles, and resources on this Web site.
- **Directed Reading-Thinking Activity (DR-TA)** (Ruddell, 2007; Stauffer, 1969; Vogt & Echevarría, 2008). DR-TA is a very effective activity for encouraging strategic thinking while students are reading or listening to narrative (fiction) text. It's especially effective in grades K–8 with the steps given below; only the difficulty level of the text changes. Reading materials (including Big Books for young children) should be rich, interesting, and, if possible, cliff-hanging stories in which there is some question as to how the story may end. Throughout the reading of a story or book, the teacher and students stop periodically and contemplate predictions about what might follow logically in the next section of the text. Begin the lesson with a question about what the class members think the story or book will be about, based on the title. As students respond, include a variety of probes, such as:
  - "With a title like . . . , what do you think this story will be about?"
  - "Let's read to find out."
  - Revisit predictions: "Did . . . happen? If not, why not?"
  - "What do you think is going to happen next? What makes you think so?"
  - "Where did you get that idea?"
  - "What made you think that?"
  - "Tell me more about that . . . "

It is important that you revisit previously made predictions after chunks of text are read so that students come to understand how predictions (and their confirmation or disconfirmation) impact their comprehension. Students can "vote" on which predictions are most likely as they focus their thinking on character (and author) motivations, problems characters face, reasons for characters' behaviors, and how the plot unfolds. Note that DR-TA is also effective in the upper grades for longer novels, with chapter-to-chapter discussions focusing on what students think will happen, what really happened, and why. (See Chapter 3 for a lesson vignette that includes DR-TA for a short story.)

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Click on Videos, then search for "Lesson Introduction in English" to see an example of two steps in the SQP2RS framework. Also, click on SIOP® Resources, then visit "SQP2RS 'Squeepers' Posters" for additional information and materials.

- **SQP2RS ("Squeepers").** This instructional framework for teaching content with expository texts includes the following steps (Vogt, 2000; Vogt, 2002; Vogt & Echevarría, 2008):
  1. *S*urvey: Students preview and scan the text to be read for about one minute to determine key concepts that will be learned. For children in pre-K–2, preview an informational Big Book with your students.
  2. *Q*uestion: In groups, students generate questions likely to be answered by reading the text; post student questions on chart paper and mark with multiple asterisks those that are frequently suggested by the groups. This is a great opportunity to model for beginning English speakers how questions are formed in English.
  3. *P*redict: As a whole class, students come up with three or four key concepts they think they will learn while reading; the predictions are based on the previously generated questions, especially those marked with asterisks. Model this step with younger children.
  4. *R*ead: While reading (with partners or small groups, or with you in a small group), students search for answers to their generated questions and confirm or disconfirm their predictions; use sticky notes or sticky strips to mark answers to questions and indicate spots where predictions have been confirmed.
  5. *R*espond: Students answer questions (not necessarily in writing) with partners or group members and formulate new ones for the next section of text to be read (if the text is lengthy); then, lead a discussion of key concepts, clarifying any misunderstandings.
  6. *S*ummarize: Orally or in writing, alone or with a partner or group, students summarize the text's key concepts, using key vocabulary where appropriate.

  Read Mr. Montoya's lesson later in this chapter to see Squeepers in action.

  For math, see the adaptation of the Squeepers process in Figure 5.2. For more information on Squeepers, see Vogt and Echevarría (2008).
- **GIST (Generating Interactions between Schemata and Texts).** This summarization procedure assists students in "getting the gist" from extended text (Cunningham, 1982; as cited in Muth & Alvermann, 1999). Together with students, read a section of text (150 to 300 words) displayed on a whiteboard, PowerPoint presentation, or in a handout. After reading, assist students in

FIGURE 5.2 SQP2RS ("Squeepers") for Math

Note that this Squeepers adaptation works well for math lessons. The steps are the same, but how they work in the lesson is slightly different.

SURVEY Before you read, ask yourself: What will this lesson be about? Look at the types of problems you will solve.

QUESTION After your text survey, write 1-3 problems you may be able to solve by the end of this lesson.

PREDICT Predict 1–3 math skills you might need use to solve the problems in this lesson. What prior knowledge or new knowledge is necessary?

READ Read the lesson.

RESPOND After you read, try to answer the sample questions and confirm your predictions about the necessary math skills.

SUMMARIZE After you read, write a 4-sentence summary:
Sentence 1: The big idea of the lesson.
Sentences 2–4: How would you explain how to solve the problems in this lesson to a classmate who was absent?

(SQP2RS math adaptation created by Karlin LaPorta and Melissa Canham, Downey Unified School District. Used with permission.)

underlining ten or more words or concepts that are deemed "most important" to understanding the text. List these words or phrases on the board. Without the text, together write a summary sentence or two using as many of the listed words as possible. Repeat the process through subsequent sections of the text. When finished, write a topic sentence to precede the summary sentences; the end result can be edited into a summary paragraph. This technique is also useful when viewing video clips. Students watch, record 10 key words or phrases, and then create summary sentences.

- **Graphic organizers.** A "common strategy to increase the chances that students who are unfamiliar with English will understand lessons sufficiently is to provide scaffolding in the form of visual representations of language..." (August & Shanahan, 2010, p. 225). Graphic organizers are schematic diagrams of key concepts and other information, and students use them to organize the information they are learning. Examples include Venn diagrams, timelines, flow charts, semantic maps, and so forth. See Buehl (2009) and Vogt and Echevarría (2008) for more examples.
- **Reciprocal Teaching** (Oczkus, 2010; Palinscar & Brown, 1984). Reciprocal Teaching incorporates four metacognitive strategies that teachers and students practice to improve comprehension of text:
  - Predicting
  - Questioning
  - Clarifying
  - Summarizing

  After students have learned each of the strategies, they work together as a whole class or small group while pausing and identifying each of the strategies as they read together. We have learned through teaching both techniques that when students learn to use the SQP2RS (Squeepers) steps first, they more readily engage in Reciprocal Teaching in small groups. For detailed lesson plans, task cards, and other RT resources, see Oczkus, 2010. (See Chapter 3 for a lesson vignette that includes Reciprocal Teaching.)

- **Question-Answer Relationships** (Raphael, 1984; Raphael, Highfield, & Au, 2006). Students can become more strategic readers when they learn how to determine the levels of questions they are asked. Some questions can be answered by looking right "In the Book" (*Right There* or *Think and Search*). Other questions need to be answered with prior knowledge and experience, and they'll be found "In My Head" (*Author and Me* or *On My Own*). See a more detailed explanation in Vogt and Echevarría, 2008.
- **Pre-Questioning**: Burke (2002) explains the importance of students writing their own research questions *before* they use the Internet to find information so that they "steer" rather than "surf" for answers. In science, students could also use the technique prior to making a hypothesis.
- **Questioning the Author (QtA)** (Beck & McKeown, 2008). Successful learners know how to use question-asking to help them construct meaning while they read (Taboada & Guthrie, 2006). They ask questions and challenge what the author says if something does not make sense to them. Beck and McKeown (2002, 2006, 2010), recommend using the instructional approach, Questioning the Author (QtA), to develop students' comprehension of textbook material, which sometimes can be disjointed and lacking in connections between ideas and key concepts. QtA values the depth and quality of students' interactions with texts, and their responses to authors' intended meanings. It assists students in developing the ability to read text closely, as if the author were there to be questioned and challenged.

Meeting the Needs of Students through Learning Strategies

Within this component, scaffolding is a focus, and by definition, scaffolding leads to differentiated instruction. One way to scaffold for English learners' varied language development needs while teaching learning strategies is through Strategic Sentence Starters (Olson, Land, Anselmi, & AuBuchon, 2011, p. 251). Giving students sentence starters or frames provides the support many need to be able to participate in literature and content area discussions. The following examples could be printed on small "cue cards" that students select and use as needed.

- *Planning and goal setting*
  - My purpose is . . .
  - My top priority (or most important job) is . . .
  - I will accomplish my goal by . . .
- *Tapping prior knowledge*
  - I already know . . .

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

- *Asking questions*
  - I wonder why . . .
  - What if . . . ?
  - How come . . . ?
- *Making predictions*
  - I'll bet that . . .
  - I think . . .
  - If _____, then . . .
- *Visualizing*
  - I can picture . . .
  - In my mind, I see . . .
  - If this were a movie, . . .
- *Making connections*
  - This reminds me of . . .
  - I experienced this once when . . .
  - I can relate to this because once . . .
- *Summarizing*
  - The basic gist is . . .
  - The key information is . . .
  - In a nutshell, this says that . . .
- *Monitoring*
  - I got lost here because . . .
  - I need to reread the part where . . .
  - I know I'm on the right track because . . .
- *Clarifying*
  - To understand better, I need to know about . . .
  - Something that is still not clear is . . .
  - I'm guessing that this means _____, but I need to know . . .
- *Reflecting and relating*
  - So, the big idea is . . .
  - A conclusion I'm drawing is . . .
  - This is relevant to my life because . . .
- *Evaluating*
  - I like/don't like _____ because . . .
  - My opinion is _____ because . . .
  - The most important message is _____ because . . .