

Comprehension instruction in content area classes

Comprehension instruction in content area classrooms is given a broad introduction in this article. The author includes a description of how to teach comprehension strategies so students can and will use them as they endeavor to understand the texts they read.

There are several reasons why comprehension instruction needs to become an integral part of content area instruction. First, learning from texts is an important part of the process of learning in virtually all subject areas. Second, research suggests that when hands-on learning is combined with text-based learning, students learn more than they do if reading is not an integral part of the learning process (E. Anderson, 1998; E. Anderson & Guthrie, 1999). Third, there is strong research evidence that students can be taught reading comprehension strategies and that such instruction is effective at improving their understandings of the texts they read (Duke & Pearson, 2002; National Institute of Child Health and Human Development [NICHD], 2000; Pearson & Fielding, 1991; Pressley, 2000; Pressley, Wharton-McDonald, Mistretta-Hampston, & Echevarria, 1998). Unfortunately, there is also strong evidence that comprehension instruction does not occur in many classrooms (Durkin, 1978/1979; Pressley, 2002a). For instance, after conducting a yearlong observational study of 10 fourth- and fifth-grade teachers (all of whom were considered very good teachers by their districts), Pressley and his colleagues concluded, "In general, students were provided with opportunities to practice comprehension strategies, but they were not actually taught the

strategies themselves nor the utility value of applying them" (Pressley, 2002c, p. 241).

My purpose in this article is a straightforward one—to provide a broad introduction to comprehension instruction in content classes. In doing so, I hope to convince you that reading comprehension instruction should not be viewed as falling within the domain of language arts alone but as having a place in other subject areas as well. With this purpose in mind, I begin by providing a definition of reading comprehension and outlining the various thinking processes that play a role in it. Then, I describe several useful and teachable comprehension strategies. I end the article with a description of how to teach the strategies.

What does it mean to comprehend a text?

Comprehension can be defined broadly as the process of constructing a supportable understanding of a text. Implicit in this brief definition are two important features of the comprehension process. First, seeking to comprehend a text is an active, intentional thinking process through which the reader constructs meaning (Alexander & Jetton, 2000; NICHD, 2000). Second, while students' understandings of texts are expected to vary as a result of differences in their background knowledge and experiences, not all interpretations of a given text can be considered valid (Pressley, 2002c). The important point to remember here is that both what the reader brings to the text (i.e., knowledge of the topic) and the ideas conveyed through the words printed in the text are important to the comprehension process. For example, two readers of the same description of an important historical event may have

differing perspectives on some of what was described in the text or differing positions regarding its legitimacy as a historical document or on the author's purpose for writing it. However, if the readers have comprehended the text, the essential "story" they both understand the author to be presenting should be similar (Pressley, 2002c).

Thinking processes involved in the comprehension process

The act of comprehending a written text is a complex one that depends upon a number of different thinking processes within the reader. These include word-level processes like the ability to identify words quickly, accurately, and effortlessly (Adams, 1990) and knowledge of the meanings of keywords. Also important are comprehension strategies (Pressley, 2000, 2002b). Such strategies can be described as special knowledge of *how* to comprehend that readers consciously use as they attempt to understand what they read (Alexander & Judy, 1988; J. Anderson, 1987; R.E. Snow, Corno, & Jackson, 1996). Finally, it is not surprising that readers' general knowledge of the world and specific knowledge of the topic about which they are reading play a critical role in the comprehension process (Alexander & Jetton, 2000). I focus on comprehension strategies in this article. However, keep in mind that limited background knowledge or weaknesses in word-level processes are major impediments to comprehension.

Reading behaviors of expert comprehenders

Expert readers use a variety of consciously controlled strategies when reading complex and challenging texts (Pressley, 2000). For instance, prior to reading, they do things like clarify their purpose for reading, overview the text, activate their prior knowledge of the topic, and make a plan for how to read the text. While reading and after they finish reading, expert readers ask questions of the text; relate information in the text to their previous understandings of the topic; and reread, summarize, and make notes to monitor their comprehension and clarify their understandings.

Moreover, expert readers use the kinds of strategies just described without prompting from others. In other words, the strategic behaviors of

expert comprehenders are self-regulated (Pressley, 1998, 2000; Pressley, El-Dinary, Wharton-McDonald, & Brown, 1998). Further, strategy use by expert readers is flexible—they make use of a variety of different strategies during the meaning-making process, consciously selecting the right strategy for the job as the need arises.

It is important to note that the ability to activate and use strategies flexibly and in a coordinated fashion as expert readers do does *not* develop for many students simply by providing them with opportunities to read. Instead, many students benefit from instruction that explicitly teaches them a few research-supported strategies and then, over time, helps them learn to use such strategies in a flexible, coordinated, and self-regulated fashion.

The what and how of content area comprehension instruction

Having provided an overview of reading behaviors characteristic of expert readers, I will now address the issue of how to help our students become expert comprehenders of the texts they read in content classes. I begin by providing descriptions of several strategies that research suggests are worth teaching to students. Following these descriptions, I describe how best to help students become expert users of comprehension strategies. The strategies in this section can be applied profitably whether one is reading whole books, research articles, chapters within books, or passages within chapters. The length of the passage is not an issue here. Thus, I will use the general term *text* to refer to any and all of the above types of texts.

Strategies worth teaching

There are a number of individual comprehension strategies that are both teachable and useful for students to learn. For ease of presentation I have broken the strategies into two groups: (1) Getting-Ready-to-Read Strategies, and (2) During- and After-Reading Strategies (Levin & Pressley, 1981; Pressley & Wharton-McDonald, 1997; Schuder, 1993). Prior to examining these strategies in detail, however, we need to examine a strategy that is crucial to the effective use of all the other strategies—question asking and answering.

Question asking and answering. The value of teaching students to use question asking and answering to support their efforts to comprehend has been well established (Oakhill, 1993; Rosenshine, Meister, & Chapman, 1996). Question asking and answering can be viewed as the strategy that drives all of the other strategies. In other words, it is the process of asking and then answering questions of oneself and the text that brings the other strategies to life. What differs from strategy to strategy is the *type* of questions one asks of oneself or the text. Thus, helping students develop the ability to ask and answer questions of themselves and the text before, during, and after reading is an important part of the process of becoming a strategic reader. In the sections that follow I provide examples of the kinds of questions students should be asking as they engage in the kinds of thinking associated with each of the other comprehension strategies.

Getting-ready-to-read strategies

The strategies in this section all help students comprehend texts more effectively by helping them think about what they are going to read before they start reading. The strategies are clarifying a purpose for reading, overviewing the text, activating prior knowledge relevant to the text, and making predictions about the text. Table 1 provides a se-

TABLE 1
Getting ready to read

<p>Read with purpose</p> <ul style="list-style-type: none"> • Why am I reading this text? (e.g., to prepare for a class discussion, to write a report about this topic, to review before a test, for enjoyment) • How should my purpose affect the way I read the text? <p>Overview the text</p> <ul style="list-style-type: none"> • What does this text appear to be about? • What are some of the major topics covered in the text? • How is the text organized? (e.g., enumeration, time order, compare and contrast, cause and effect, problem/solution) <p>Activate what you already know</p> <ul style="list-style-type: none"> • What do I already know or think I know about this topic? <p>Predict</p> <ul style="list-style-type: none"> • I think this text is going to be about....

ries of prompts to help students get ready to read in a strategic fashion.

Clarifying a purpose for reading. Teaching students to think consciously about why they are about to read a particular text has been shown to improve comprehension (Pressley, 2000; Pressley & Wharton-McDonald, 1997). Here is the critical question students need to ask and then answer: Why am I reading this text?

Overviewing the text. Students should conduct a broad survey prior to reading (Pressley, 2002c). The goals of overviewing are to get a sense of what the text is about, to determine its relevance to one's purpose for reading, and to identify important sections given one's purpose. Implementing this strategy involves reading and thinking about the title of the text and major headings, reading the introduction and conclusion, and examining text support features, such as tables and graphs, with the purpose of answering questions such as the following: What does this text appear to be about? What are some of the major topics covered in the text? How is the text organized?

Activating prior knowledge relevant to the text. Having developed a general sense of what the text is about during the overviewing process, readers can call up relevant knowledge they already possess (Levin & Pressley, 1981). Activating one's prior knowledge of a topic before reading provides a mental "hook" linking knowledge the reader already possesses with ideas in the text. The practice has been shown to improve both understanding and recall of text content (R. Anderson & Pearson, 1984). At this point possible questions to ask and answer could include the following: What do I know about this topic already? How might what I know relate to this particular text?

Making predictions about the text. Using answers to questions posed during the overview process in combination with their prior knowledge of a topic, students can learn to make predictions about the text (Pressley, 2002c). For instance, a student actively using this strategy might generate the following prediction after overviewing a chapter focusing on the life of child laborers during the industrial revolution: "In this chapter I think I will

learn what life was like for children who worked in factories.” Such predictions can then be used as the student reads to test whether or not the text is making sense. In other words, the predictions become hypotheses to test as the student is reading.

During- and after-reading strategies

Research has shown that students’ comprehension of complex texts can be improved by teaching them a number of strategies to use while they are reading and after they finish reading a given text (Pressley & Wharton-McDonald, 1997; Schuder, 1993). Strategies applied during these phases of the reading process have two major goals: (1) to help students understand and remember what they have read, and (2) to help them monitor their comprehension and apply “fix-up” strategies when breakdowns in understanding occur. Table 2 provides a list of prompts intended to facilitate students’ strategic thinking during and after reading. As was the case with the prereading strategies presented in the previous section, the ability of readers to ask and answer questions of the text and themselves is a critical feature of all the strategies in this section—once again, it is the process of asking and answering questions that drives the other strategies.

Attending to text structure. The term *text structure* refers to the organizational logic of a text. In other words, it refers to the manner in which the information in the text is organized for presentation. It is important to note that the vast majority of texts use a relatively limited number of organizational structures, including enumeration, time order, compare and contrast, cause and effect, problem/solution, and description. Descriptions of each of these text types are provided in Table 3. Moreover, with the exception of description, each of these text structures is associated with a set of keywords that readers can use to assist them in identifying the particular structure or structures used (see Table 4). For example, keywords associated with texts written using the enumeration structure include *first*, *second*, *next*, *then*, and *finally*. So when readers come across these words while reading, they should stop and ask if they are reading a text that is listing a series of ideas or events. Helping students identify the organizational structure of a text

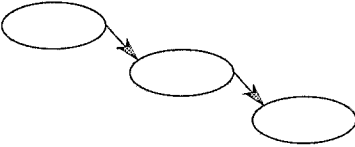
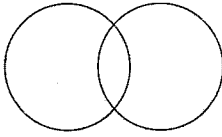
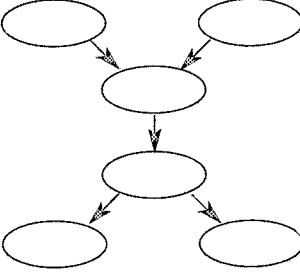
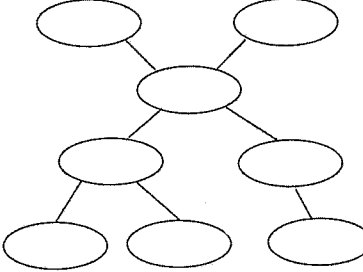
TABLE 2
While I’m reading and when I’m done

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| <p>Consider text organization</p> <ul style="list-style-type: none"> • Do I see any keywords associated with specific text structures? • How is the text organized? (e.g., enumeration, time order, compare and contrast, cause and effect, problem/solution) <p>Summarize the text</p> <ul style="list-style-type: none"> • Oral/written—stop and restate the main ideas/points in your own words orally or in writing • Visual—create a visual organizer that captures both the organization of the text and the main points or ideas <p>Check your understanding</p> <ul style="list-style-type: none"> • Is what I just read clear to me? Do I “get it?” • What about the text is still fuzzy or unclear? • Can I answer who, what, when, where, and why questions about the text? <p>Use fix-up strategies</p> <ul style="list-style-type: none"> • What strategies could I use to help me better understand what I’m reading? • Reread part or all of the text • Look ahead in the text • Examine other resources on this topic (e.g., books, webpages, videotapes) • Seek help from another person (e.g., student, teacher, parent) |
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facilitates the comprehension process (Armbruster, Anderson, & Ostertag, 1987; Berkowitz, 1986; Duke & Pearson, 2002; Taylor, 1982; Taylor & Beach, 1984). For instance, a student who recognizes that a particular text is comparing and contrasting the lives of a number of different former prime ministers has established a framework for understanding the information presented in the text. It is not surprising that once students learn how to identify the organizational structure of texts, they can apply this strategy when overviewing texts prior to reading. Here is key question to ask: How is this text organized? (This article has an enumeration structure, for instance.)

Creating summaries (oral, written, visual). Teaching students to summarize what they have read is another strategy that has been shown to improve their overall comprehension (Armbruster et al., 1987; Bean & Steenwyk, 1984; Berkowitz, 1986; Brown, 2002; Taylor, 1982; Taylor & Beach, 1984). Summaries can be described as oral,

TABLE 3
Five common text structures and examples of associated visual organizers

Text structure	Explanation of structure	Visual representation of structure
Enumeration Time order	A listing of items or ideas specified one after the other. Lists a series of events in time.	
Compare and contrast	Describes or explains similarities and differences between two or more things or events.	
Cause(s) and effect(s) Problem(s)/solution(s)	Explains how events cause other events (effects). Explains the development of a problem and one or more solutions to it.	
Description	A characterization of salient features or events intended to create a mental image of something experienced (e.g., a scene, a person, an object, an event).	

written, or visual statements; texts; or diagrams that capture the important ideas from a text in an abbreviated form. Key questions for readers to ask when attempting to construct summaries of texts include, among others: What was the gist of the text? What were the main points made by the author? What organizational structure(s) did the author use to present the information?

Oral summaries. Oral summaries are particularly useful for “on-the-fly” comprehension checking, where a reader pauses momentarily after reading a section of text and checks his or her understanding by attempting to recount the main points of what he or she has just read (Duke & Pearson, 2002; Pressley, 2002c).

Visual summaries. There is considerable research support for the practice of teaching students to construct visual summaries of texts (Armbruster et al., 1987; Duke & Pearson, 2002). While not typically described in this fashion, visual organizers (e.g., semantic webs, Venn diagrams) provide students with yet another means by which to create summaries of the important information from texts. By definition visual organizers are representations that capture both the important information from the text and the structure of the knowledge contained in the text (i.e., the text structure; Vacca & Vacca, 1999). In other words, visual organizers include the main ideas presented in a text and show how the ideas relate to one another. As such, the

TABLE 4
Keywords associated with text structures

Enumeration	Time frame	Compare and contrast	Cause and effect & problem/solution
to begin	on a specific (date)	however	because
first	not long after	but	since
secondly	now	as well as	therefore
next	as	on one hand/on the other hand	consequently
then	before	not only/but also	as a result
finally	after	either/or	leads to
most important	when	while	nevertheless
also	following	although	accordingly
in fact	soon	unless	if/then
for instance	later	similarly	thus
for example	finally	yet	thereby

ability to construct an appropriate visual organizer depends upon a reader's ability to identify the organizational structure(s) used in the text. The type of visual organizer used to summarize a text must correspond with the organizational structure of the text (see Table 3 for examples of simple visual organizers appropriate for each of the different text structures). For instance, while either a Venn diagram or a matrix can be used to summarize texts written using a compare-and-contrast text structure, neither can be used to summarize texts written using a cause-and-effect or problem/solution organizational structure. While there are many commercially produced instructional packages intended to help teachers instruct students in the use of visual organizers, such products are unnecessary and may get in the way of students' learning to use visual summaries effectively on their own. The real power of visual organizers is realized when students learn to construct visual summaries that accurately represent the actual texts they are reading—something mass-produced visual organizers can seldom facilitate.

Written summaries. Teaching students how to write summaries of what they have read is another strategy with considerable research support (Duke & Pearson, 2002). One approach that has been used to teach students how to write coherent summaries of texts involves teaching them to apply a set of rules. For example,

Rule 1: Delete unnecessary material (e.g., delete details that are not germane to the main topic).

Rule 2: Delete redundant material (e.g., delete repetitious statements made in the text).

Rule 3: Select a word to replace a list of items (e.g., replace "beans, flour, sugar, and dried fish" with "food").

Rule 4: Select a word to replace the individual parts of an action (e.g., replace a long description of soldiers crossing a mountain pass with "the soldiers crossed the mountain pass").

Rule 5: Select a topic sentence (e.g., select a sentence that captures the main idea or gist of a paragraph or passage).

Rule 6: Create a topic sentence if one is not available. (McNeil & Donant, 1982)

Monitoring comprehension and seeking clarification using fix-up strategies

Some readers, particularly younger and poor readers, are not able to effectively monitor and control their efforts to comprehend while reading (Baker, 1985; Markman, 1977; Myers & Paris, 1978; Paris, Wasik, & Turner, 1991). Teaching students the importance of monitoring their understanding of what they are reading and helping them develop tools for doing so is an important aspect of effective comprehension instruction (Baker, 2002; Klingner, Vaughn, & Schumm, 1998; NICHD, 2000; C.E. Snow, Burns, & Griffin, 1998). However, teaching students how to monitor their understanding of a text is only part of the process. We must also teach them strategies for fixing comprehension breakdowns (Klingner et al.). As with all of the previous strategies, the ability to ask

and answer questions is a fundamental part of the process. The number and types of questions that might be useful in the comprehension monitoring process are almost endless. Here I provide examples of two types of useful questions. First are questions that focus on one's general understanding of a text. Examples of this type of question include the following: Is what I just read clear to me? What parts of the text are still fuzzy or unclear? A second type of question is about the more specific details, or who, what, when, where, and why questions. These include questions such as these: Who were the main actors in the event? When did these events take place? What were the actors trying to accomplish through their journey? As you may have already inferred, the act of trying to generate a summary of a text can also be used as a tool for comprehension monitoring. If a student who knows how to write summaries is unable to create one for a given text, it is unlikely the text has been well understood. This should be a signal to the student that a comprehension breakdown has occurred.

Once a breakdown in comprehension has been identified, a student must know to seek clarification and then have a set of "fix-up" strategies to remedy the situation. Key questions for students to ask and answer once a comprehension breakdown has been identified include the following: What strategy or strategies can I use to help me better understand this text? Given my purpose for reading this text, how important is it that I understand this portion of the text clearly? Strategies used by expert readers to address comprehension breakdowns include rereading parts or all of the text, looking ahead in the text, stopping and relating the information presented in the text to what one already knows about the topic, examining other resources addressing the same topic, and seeking support from more knowledgeable others.

Effective comprehension strategies instruction

Having covered *what* it is we need to teach our students when seeking to help them become expert comprehenders, we should turn our attention to *how* to do so. In other words, what kind of approach should we use to teach our students what comprehension strategies are, why they are useful,

and how and when should they use them in a coordinated and self-regulated manner? I describe the process as one that occurs in two phases—explicit instruction of individual strategies (Duffy, 2002; Duffy & Roehler, 1989; Roehler & Duffy, 1984) and teaching for self-regulated strategy use (Block & Pressley, 2002; Pressley, 2002c; Pressley et al., 1992; Schuder, 1993). While there is a general instructional trend of moving from the first to the second phase, it is important to understand that this is not a wholly sequential process. Instead there is considerable overlap between the phases as the teacher and students move back and forth between learning the what, why, and how of individual strategies and learning how to use this growing repertoire of individual strategies in a coordinated and self-regulated manner.

Comprehension strategy instruction is most effective if it is delivered within a context where students use the strategies to read and learn from the actual texts they are expected to read. As Gambrell, Kapinus, and Wilson (1987) pointed out, "students will stand the best chance of achieving independence in [a strategy's] use if they have learned it in a meaningful context" (p. 641). They went on to say that students "need to be shown that the...strategy they are learning has direct application in the course material they are assigned to read" (p. 641). This is accomplished by using actual content area materials during each phase of the explicit instruction process.

Phase 1: Explicit instruction of individual strategies

As suggested by the name, the focus of this initial phase of the process of comprehension instruction is on helping students become competent users of individual comprehension strategies like overviewing or constructing visual summaries. The process of explicit instruction is one in which the teacher must take an active role in teaching the strategy to be learned, rather than simply presenting it and hoping the students "catch on" and learn to use it effectively. In the following paragraphs I present the four-step framework for explicitly teaching individual strategies.

Introduction and justification. In this first step the teacher introduces students to the strategy by

telling them what it is and why it is useful. To begin, the teacher introduces the students to the strategy by using a simple description or definition (Baumann & Ballard, 1987; Baumann & Schmitt, 1986; Gambrell, Kapinus, & Wilson, 1987; Pearson & Dole, 1987; Vacca & Vacca, 1989). During this introduction teachers can also gain insight on what, if anything, students already know about the strategy by asking them what they know about it. Next, the teacher provides students with a rationale for learning the strategy by sharing with them reasons why and evidence of how the strategy can improve their reading comprehension.

Modeling. This step represents the beginning of the process of teaching the students *how* to use the strategy. The importance of modeling was highlighted in comments by Singer (1978; as cited in Dansereau, 1987, p. 615), “generally, reading and learning processes are covert, so students seldom get to view the thinking activities of others. This is unfortunate, since the best way of learning most skills appears to be to observe others performing them.” In this step, teachers retain full responsibility for the strategy (Baumann & Ballard, 1987; Heller, 1986), and students are shown how the strategy works (Baumann & Schmitt, 1986; Pearson & Dole, 1987). Through demonstration (Gambrell et al., 1987) and thinking aloud (Baumann & Ballard; Gambrell et al.; Gersten & Carnine, 1986; Pearson & Dole) teachers guide the students through the strategy. The phrase *thinking aloud* means the teacher explains her or his thought processes while demonstrating the strategy. In other words, the teacher shows the students *how* to use a covert thinking strategy by expressing her or his thoughts aloud as she or he implements the strategy while the students look on. This step is crucial if meaningful learning is to take place.

Guided practice. As the name implies, the focus of this step is on providing students with numerous opportunities to practice the strategy they are learning in an environment where support and feedback are readily available. In other words, the teacher and the students implement the strategy together, sharing responsibility for its execution (Baumann & Ballard, 1987; Gambrell et al., 1987). For example, having modeled how to identify the organizational structure of a text several times, the

teacher might highlight marker words associated with a particular text structure in a new passage and ask the students if they can determine what structure the author has used. With time the teacher would gradually turn responsibility for implementation of the strategy over to the students (Pearson & Dole, 1987). Thus, in this step students are provided with extensive practice at using the strategy in a supportive environment. As Jones pointed out, “the progression from teacher-directed to student-directed learning is essential for developing independence in comprehension” (1985; as cited in Gambrell et al., 1987, p. 638). Moreover, the numerous opportunities for supported practice provided to students during this step is a major difference between explicit explanation and most conventional modes of instruction.

Independent practice. During this step the teacher gives assignments that require students to assume full responsibility for using the strategy (Baumann & Ballard, 1987; Gambrell et al., 1987). While students are now required to use the strategy on their own, teacher monitoring and feedback remain important parts of the process to ensure the strategy is used correctly and to help build students’ confidence. Pearson and Dole (1987) suggested discussing both students’ correct and incorrect responses along with their method of reasoning after the first few independent practice sessions, pointing out that “such ‘reconsolidation’ discussions can prevent continued patterns of failure” (p. 159).

Phase 2: Teaching for self-regulated strategy use

The ultimate goal of teaching comprehension strategies is to help students reach a point where they independently approach and read texts in a strategic fashion—first choosing and then using the appropriate strategy or strategies given their purpose for reading (Pressley, 2002c). “Optimal reading comprehension is dependent not only on readers’ knowledge of many specific strategies, but also on their knowledge of when to use each strategy in their repertoire” (Malone & Mastropieri, 1992, p. 278). Thus, the focus of instruction in Phase 2 is on helping students learn to use their growing repertoire of individual strategies in a coordinated, flexible, and self-regulated fashion

(Pressley, 2002c; Pressley et al., 1992). As a result, helping students learn when and where to use specific strategies, providing them with reasons and evidence of why such strategies are useful, and providing them with many opportunities to practice using the strategies for meaningful purposes (e.g., to learn course content) are at the forefront of the process during this phase (Baumann & Schmitt, 1986; Gersten & Carnine, 1986).

As mentioned earlier, this second phase of the comprehension instruction process begins as soon as instruction in the individual strategies reaches a point where students have a reasonable understanding of what the strategy is and how it works. In practice, then, the two phases of comprehension instruction are more nearly parallel than sequential as they unfold across time, with the teacher providing instruction in when and where to use different strategies as the need or opportunity arises. For instance, a teacher might model when and how to use the previously taught strategy of overviewing a text prior to reading in combination with the strategy of creating visual summaries, which he or she is just introducing to students. Nonetheless, as students build larger and larger repertoires of strategies, there is a natural progression from more explicit instruction of individual strategies toward instruction focusing on the coordinated and self-regulated use of multiple strategies.

To help students achieve the strategic competence characteristic of expert readers, they need many opportunities to discuss the texts they are reading (Pressley et al., 1992). The focus of these discussions should not only be on the content of the text but also on the process of comprehending. Typically, such discussions take place in small groups where all students read the same text. Once in groups, students independently read sections of the text and engage in discussions that focus on their understandings of the text and on the processes they are using to construct those understandings. Initial discussions take place with considerable teacher support. However, as students become more capable participants in the discussions, the teacher withdraws from direct participation. Teacher support focuses on prompting students to be active readers by asking them to think about and make decisions about the kinds of strategies they should be using to understand the text (Pressley, 2002c). For example, prior to reading a section of

text, a teacher might ask a group of students what kinds of strategies they think would be useful for comprehending the text and why they would use the strategies they identify. After students finish reading, the teacher could ask them to share their understandings of the text and also to share the strategies they used to construct those understandings. These discussions are not intended to be teacher centered. As a consequence, during discussions of texts, students are encouraged to engage with one another as well as with the teacher. Nonetheless, in response to student needs, the teacher will continue to model and share with students the processes he or she used to construct an understanding of the text—showing and sharing not only the meanings constructed but also the strategies used to do so.

Concluding thoughts

Achieving success in subject areas ranging from social studies to science requires that students be able to comprehend the texts of such subjects. Unfortunately, if left to their own devices many students struggle to read and learn from these texts. Despite research documenting its effectiveness, instruction in how to comprehend content texts is not featured in many content classrooms. It is hoped that with the information provided in this article, teachers can include comprehension instruction in their content classes.

I finish with a short list of helpful hints to keep in mind while planning and carrying out comprehension instruction.

- Teaching a few comprehension strategies well is more effective than teaching many strategies poorly (Brown, 2002).
- Teach students to use strategies flexibly, adapting them to their needs, their individual preferences, and the text at hand (Pressley, 2002c).
- Remember that reading comprehension strategies are a means to an end and not the end. The end is helping students become expert comprehenders of challenging texts.
- Students need many opportunities to practice the strategies they are learning (Brown, 2002).

- Becoming an effective teacher of reading comprehension takes most teachers several years (Brown & Coy-Ogan, 1993).

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