Comprehension Strategies

The National Reading Panel’s report on effective instructional practices (NRP, 2000) demonstrated the value and usefulness of teaching comprehension strategies to students of all ages. Comprehension strategies are routines and procedures that active readers use to better understand what they read. For example, active readers may think about what they already know about a specific topic after they read the title of a magazine article. They may predict what the article will be about. They may visualize parts of the text. They may summarize the main points as they are reading. They may ask questions as they read. They are aware of when the text is making sense and when it is confusing or unclear. If they do not understand, active and strategic readers know how to repair comprehension breakdowns. All of these procedures are strategies active readers use to make sense of text.

The NRP’s report listed a number of comprehension strategies that have been found to be useful to readers and have been successfully taught. These strategies include procedures such as identifying existing prior knowledge, predicting, visualizing, summarizing, generating questions, monitoring comprehension, and repairing comprehension breakdowns. The value of these different strategies is that they can be useful for developing instructional procedures to teach students. With instruction and practice, students can learn to use the strategies on their own when they read. The use of these strategies will help readers become independent of the teacher. Thus, students can learn to become strategic readers (Paris, Wasik & Turner, 1991), thereby freeing themselves of the need for teacher support and assistance.

There is no evidence that all readers use all these strategies all the time. In fact, one of the hallmarks of strategic readers is that they are flexible and adaptable in their use of these strategies (Dole, Duffy, Roehler & Pearson, 1991). A reader will find that one set of strategies is useful for one particular type of text; another set is useful for a different type of text. For example, predicting the content of an upcoming text may be difficult if a reader has little or no prior knowledge about that topic. Reading a text about analog and digital bandwidth is unlikely to call up much prior knowledge for most readers. However, readers will be very likely to carefully monitor their comprehension of such a text, particularly if it contains many difficult and unknown words, such as analog and bandwidth. However, monitoring comprehension will not be a particularly useful strategy for reading easy-to-understand texts or texts on topics with which readers are very familiar. Most parents do not need to monitor their comprehension of stories they read aloud to their children; such stories are easy to understand and remember. In that case, reading proceeds automatically, with little regard for any comprehension strategies.
Traditional Skills and Comprehension Strategies

Thirty years ago comprehension was taught as a sequence of separate skills identified in basal reading programs and state curricula across the nation (Dole et al., 1991). Teachers were guided to “teach” students to find the main idea, to sequence a set of events, to determine fact from opinion, and to differentiate fantasy from reality. These skills were taught as automatic procedures that readers used without being aware of them (Paris et al., 1991). For example, finding the main idea was taught by having students complete a workbook page in which brief passages were followed by questions asking students to determine the main idea by identifying one of four potential main ideas. With repeated practice, it was assumed that students would improve their identification of main ideas, not only in these texts but also in texts that students read independently. There was nothing conscious or deliberate about finding the main idea; students just did it. Further, there was nothing teachers did to help students find the main idea; teachers only identified responses as right or wrong.

In a now classic study, Durkin (1978–79) made the argument that teacher help for learning comprehension skills was nonexistent. Based on data from her observation study, Durkin argued that teachers did not “teach” the skills but instead only “tested” the skills. In other words, Durkin’s observations suggested to her that teachers did not teach students how to find the main idea; rather, teachers “mentioned” the skills and then tested whether their students could find the main idea on their own or not. An example of this type of testing instead of teaching can be extrapolated from the workbook page on finding the main idea. Durkin argued that teacher help and support for finding the main idea included teachers asking students questions about the main idea. If students did not respond correctly, teachers called on someone else to get the right answer. There was no help and support for the student who incorrectly responded. Teachers did not assist those students who could not identify the main idea or show them how to find the main idea. It was this last idea that was critical. Durkin argued that teachers needed to show students how to find the main idea, not just tell them if they did it right or not. It was this procedural knowledge (Paris, Lipson & Wixson, 1983), the knowledge of “how do I do it?” that was missing in teachers’ instruction. Further, Paris and his colleagues (Paris et al., 1983) argued it was also conditional knowledge, the knowledge of “when and where do I use it?” that was missing as well.

Durkin’s work presaged a now classic body of research on comprehension strategies in which students were taught a set of flexible and adaptable routines or procedures for handling especially difficult text (Dole, 2002). Unlike skills, strategies are thought of as intentional and deliberate and under the conscious control of readers. The NRP (2000) found that readers across a number of different grade and age levels benefit from being taught the conscious and intentional use of strategies when they read. Strategies are always goal directed. They are applied thoughtfully, and they emphasize reasoning, problem solving, and critical thinking. In addition, strategies imply metacognitive awareness. Effective strategies users are aware of what they are doing, and they reflect on their level of understanding of a text. They know what to do when reading does not make sense.

Instruction in Comprehension Strategies

Two important findings of reading research are that more-skilled readers use comprehension strategies and that when these strategies are directly taught to readers, their comprehension improves (NRP, 2000). This is generally true for all readers but especially true for less-skilled readers (Dole et al., 1991). The NRP (2000) cites dozens of studies to document the effectiveness of teaching students comprehension strategies. A few studies can be used to illustrate these findings in more detail.
A classic study conducted by Palincsar and Brown (1984) led the forefront in comprehension strategy instruction. From the research Palincsar and Brown identified four particularly important strategies to teach: predicting, summarizing, clarifying hard parts, and asking questions. The researchers conducted a series of studies in which they taught special education middle-school students to use these strategies over an extended period of time. During this time teachers gradually taught students to become teachers and users of the strategies as they read their content area textbooks. Teachers began by modeling how they themselves used the strategies as they read the content area textbooks. Then students worked in peer learning groups to repeatedly practice using the strategies as they read their textbooks. Over time, teachers released responsibility for use of the strategies completely to their students, who eventually learned how to use the strategies on their own, without the help of the teacher or their peers.

The teaching of these four particular strategies is well known as reciprocal teaching and can be found in many textbooks on reading instruction and in many reading programs today. In a review of research, Rosenshine and Meister (1994) found a moderate to strong effect size for reciprocal teaching procedures. Further, the NRP (2000) found that students who learned reciprocal teaching were able to transfer their use of these strategies to texts they read on their own.

Another approach to strategy instruction was developed by Duffy, Roehler, and their colleagues (1987). These researchers taught teachers to explicitly discuss the mental processes and cognitive strategies involved in comprehension. Even though the teachers taught the skills in their basal reading programs, the researchers taught the teachers to teach the skills in a different way. Instead of focusing on using the skill, teachers explicitly identified what they were doing, how they were doing it, and why it was important. Specifically, teachers taught students what the skill/strategy was, why it was important, and how and when they could use it as they read. They found that teaching the skills in this way assisted students in being aware of their strategy use as they comprehended what they were reading. Teaching in this way allowed the skills/strategies to become deliberate and intentional for students rather than automatic processes.

A different set of strategies was taught by Dole, Brown, and Trathen (1996). These researchers provided instruction on how to use a story frame structure to improve narrative text comprehension. Using fifth- and sixth-graders in a high poverty school, the researchers adapted a peer-teaching model similar to that of Palincsar and Brown (1984) to teach students to look for the main characters, their problem, and the resolution to the problem. They taught students that using this kind of story frame structure would help students comprehend better. In addition, they taught students the flexible and adaptable use of this strategy so that they did not jump too quickly into identifying the problem, but rather read with a problem-solving attitude about what the problem in the story actually might be.

Dole et al. (1996) compared this instruction to instruction that provided students with appropriate prior knowledge before they read a text. On comprehension posttests students who were taught this problem-solving story frame structure performed better than students who were provided with appropriate prior knowledge. More importantly, the story frame students performed even better when they were asked to read completely on their own, without any help or support from the teacher. It appeared as though the story frame provided students with a scaffolding or organizational structure within which to understand stories better.

Implications for Comprehension Instruction

Clearly, comprehension strategies are useful to teach and useful to learn. The body of research supporting their use is abundant. Further, studies within this body of research have been conducted in real classrooms in cities and states across the country and with students of differing age levels (NRP, 2000). However, several issues remain unresolved related to comprehension strategy instruction. One issue relates to which strategies to teach to which students. Not all students need all strategies; some students pick them up on their own. Readers
also appear to have personal preferences about which strategies are most helpful to them in their own reading. A second issue relates to how many strategies and which ones to teach. There is no clear answer to this question. Some evidence indicates that teaching a set of strategies is more effective than teaching one on its own (NRP, 2000). However, we also know that consciously and deliberately using strategies helps readers become active and engaged in the reading process. It is this active and engaged process that teachers want to promote, rather than the simple and/or linear use of many different strategies.

A third issue relates to the role of strategy instruction within a comprehension curriculum. Not all comprehension instruction should be the teaching of strategies. There is a need for teaching students other important aspects related to comprehension, such as text structure and vocabulary, in addition to supporting and assisting students as they read ever more difficult text. Comprehension strategies are one part of a complete comprehension curriculum; they are not the only part. We have yet to determine how strategy instruction fits into that complete comprehension curriculum.

**Biography**

Janice Dole is Associate Professor in the Department of Teaching and Learning at the University of Utah. She has held positions at the Center for the Study of Reading at the University of Illinois at Urbana-Champaign, Michigan State University, and the University of Denver. Her research interests include comprehension instruction, professional development, and school reform in reading. She has published widely in research and educational journals and has worked in educational reform in the Baltic states of Estonia and Lithuania. For the past ten years, Dr. Dole has served as a member of the reading development panel for the National Assessment for Educational Progress (NAEP). She was also a panel member of the recent RAND Reading Study Group. For the last few years, she has been co-evaluator of Utah’s Reading First project. Additionally, she is working on a national study examining the effects of four comprehension interventions on fifth-grade students’ reading comprehension.

**References**


