

# Reading Comprehension Instruction: Focus on Content or Strategies?

by Margaret G. McKeown, Isabel L. Beck, and Ronette G. K. Blake

The importance of reading well has never been in dispute. Reading well not only provides practical tools for communication, for work, and, most importantly, for learning itself, it also helps citizens participate fully in the choices that govern communities and the nation. Yet, reports from research and the larger educational community suggest that too many students leave school without knowing how to read well.

Recent research on comprehension has certainly provided increased understanding of comprehension processes and broad and general knowledge of what makes for effective instructional practice. Knowing the effective practices at a general level may suffice to bring successful learning to many students. But helping readers who are struggling to achieve requires deep understandings of the kinds of instructional practices that affect students' comprehension.

A situation that raises the stakes on what goes on in schools is that struggling readers are least likely to spend time on reading outside of school (Cunningham & Stanovich, 1998). Further, students from lower socioeconomic status (SES) homes have the least amount of language interaction at home, providing them with less grist to enhance their language development (Hart & Risley, 1995; 1999). The consequence is that these students have little opportunity for development and practice of higher-level comprehension abilities, highlighting the need to provide the most effective school instructional practices.

## Two Directions for Comprehension Instruction: Strategies and Content

Presently, comprehension instruction research has come to focus on teaching explicit comprehensions strategies. A strategies approach is prominent in the literature on comprehension instruction and was featured in two major reports on reading: the National Research Council's (NRC) *Preventing Reading Difficulties in Young Children* (Snow, Burns, & Griffin, 1998) and the NICHD sponsored report of the National Reading Panel (NRP) (2000). However, although a large body of research on strategies instruction has accumulated, a great deal remains to be explained. One reason that much is still unknown is that the studies have varied so widely in the kind of instruction offered, and little appears in the reports of studies about actual interactions with text. Thus, what is it about a strategies approach that has brought about the positive results?

The issue of what makes strategy instruction effective seems to be reflected in comments that a number of reading scholars have made. The comments speak to the issue of what is essential for comprehension instruction. For example, Carver (1987) has suggested that the positive effects of strategies may spring from more time spent reading and thinking about text rather than from specific learning about strategies. Pearson and Fielding (1991) mused that strategies instruction might not be needed if student attention could simply be focused on

understanding text content. Seeming to address this issue, Gersten, Fuchs, Williams, & Baker (2001) suggest moving from explicit strategies toward more fluid approaches to comprehension instruction, centered on getting students to read in a more thoughtful ways. Similarly, Sinatra, Brown, and Reynolds (2002) question whether it may be more effective to teach students to approach reading with a problem-solving perspective rather than to explicitly teach comprehension strategies.

The notion of approaching comprehension instruction as just getting students to focus on meaning is at the heart of an alternative instructional approach. This approach, which we have labeled a content approach, aims to direct students' attention toward the content of what they are reading and encouraging students to work through the text to make sense of it, connecting and integrating information as they proceed through the text. The goal of this process is a coherent mental representation of the ideas the text presents. In a content approach, working through text takes the form of an interactive discussion of text as reading proceeds.

## *What is it about a strategies approach that has brought about the positive results?*

Relative to strategies instruction, fewer studies have been done that investigate a content approach, and none have compared strategies and content approaches. In this article, we report on a recently completed study in which we implemented standardized lessons on common texts for both a *strategies approach* and a *content approach* to comprehension instruction and compared their effects.

For a sense of how the two approaches operate, consider a group of students who have just finished reading a short segment of text. In a strategies approach, the teacher might ask the students to summarize the text and recall what kind of information goes into a good summary. She might follow up a student's summary by asking other students if it was a good summary and why or why not. In a content approach, the teacher might ask what the portion of text had been about, and as students respond, follow up by asking how pieces of information that students contributed fit in with what is being read or why the information is important.

## Roots and Current Status of Strategies and Content Approaches

Strategies and content approaches have common features as well as distinctions. Both try to engender student engagement with reading and both approaches certainly intend that students understand the content of a text with which they are

working. Both approaches can trace their roots to mental processing models—models of learning and thinking in the case of strategies and of text processing in the case of content.

The notion of providing instruction in strategies, individual routines for dealing with text, arose from work in developmental psychology that had established the active, strategic nature of learning that developed as children matured. Based on this developmental foundation, Brown and her colleagues researched strategies for general learning tasks, such as rehearsal, categorization, and elaboration (Brown, Bransford, Ferrara, & Campione, 1983), and followed by investigation of strategies for studying, such as note-taking and underlining (Brown, 1981; 1982b; Brown & Smiley, 1977). From their work, Brown and her colleagues surmised that strategies might be useful to improve comprehension of young or less able learners (Brown & Smiley, 1978). The eventual manifestation of this line of work in reading was Reciprocal Teaching, an approach that taught young students to apply strategies of summarizing, questioning, clarifying, and predicting (Palincsar & Brown, 1984).

Strategies instruction also finds roots in models of thinking. Pressley and his colleagues (Symons, Snyder, Cariglia-Bull, & Pressley, 1989) trace notions of strategy teaching to theories of Baron (1985) and Sternberg (1979; 1982), both of whom emphasize the role of efficient component processes in complex thinking such as problem solving. These subprocesses included identifying a goal, monitoring progress, and evaluating evidence. This line of thinking led researchers to provide young students with procedures they could employ while reading to facilitate comprehension. These roots led Pressley and his colleagues to develop Transactional Strategies Instruction, an approach in which the teacher explains and models strategies, and uses strategies to guide dialogue about text (Pressley, et al., 1992).

While models of thinking and general learning underlie strategies instruction, models developed to explain specifically how a reader processes text (see for example, Kintsch, 1974; Graesser, Singer, & Trabasso, 1994; Trabasso, Secco, & Van den Broek, 1984; Van den Broek, Young, Tzeng, & Linderholm, 1998) are the roots of a content approach to comprehension. Text processing models take the perspective that the mental processes in reading focus on the development of coherence based on organizing the meaningful elements of the text. From a text-processing perspective, a reader moves through text identifying each new piece of text information and deciding how it relates to information already given and to background knowledge (See Kintsch & van Dijk, 1978). The focus is on what readers do with text information to represent it and integrate it into a coherent whole. A text-processing perspective on comprehension suggests that comprehension enhancement might derive from a focus on continually striving for meaning as reading of the text moves along.

### **Overview of Study Comparing Strategies and Content Approaches**

To conduct the study, we developed sets of standardized lessons for strategies and content around a common set of texts for fifth grade (McKeown, Beck, & Blake, 2008). The study ran for two consecutive years. In the first year the lesson materials were based on five narratives from the basal reader in use in the

school district. In the second year, these same story lessons were used again, and we added three expository texts.

The study included all fifth graders from one school in a low-performing urban district. This involved six classrooms and their teachers, two classrooms in which teachers taught strategies lessons, two classrooms in which teachers taught content lessons, and two classrooms in which lessons using the basal reader material were taught, serving as our comparison group. In this article we will confine our discussion to the results from the strategies and content classrooms. The content lessons were based on an approach that Beck and McKeown and their colleagues developed, Questioning the Author (QtA) (Beck, McKeown, Sandora, Kucan, & Worthy, 1996; Beck & McKeown, 2006).

To develop the strategies lessons, we first needed to identify the strategies to use. We considered which strategies had been highlighted as showing positive effects in the NRC (Snow, Burns, & Griffin, 1998) and NRP (2000) reports. The NRC report focuses on summarizing, predicting, drawing inferences, and monitoring for coherence. The NRP report lists comprehension monitoring, summarization, question-generation, question-answering, cooperative learning, graphic and semantic organizers, and multiple-strategy teaching. To select among these strategies, we considered which of those procedures might be most naturally called on as a reader works through a text to understand the content. Our thinking was that readers tend to summarize important information as they move through text; they develop a sense of what may be coming next; they need to draw inferences to create connections; and they may well form questions to check that they are on track. Additionally, effective readers monitor their understanding and take steps to remedy the situation if they do not understand. We thus selected summarizing, predicting, drawing inferences, question-generation, and comprehension monitoring as the strategies for our lessons. We developed the strategies instruction in a three-tiered process of design and feedback, with input from strategies experts in the field.

For lessons in the two instructional and the comparison conditions we followed a similar format that we scripted for the teachers. We chose stopping places in the text, which were very similar across the approaches, and developed questions for the teacher to pose (in the case of content and the comparison) and procedures to prompt students to implement a specific strategy for the strategies condition. The scripts also included suggestions on following up student responses, in case students did not address key information in their initial responses.

A stop in a strategies lesson, for example, might begin with the teacher saying, "This is a good place to stop and summarize." After a student responds, follow-up prompts suggested for the teacher include: "Was that a good summary?" to have other students evaluate and add or revise, and "What do we do when we summarize?" to have students review the thinking that goes into summarizing. At a stop in a content lesson a teacher might ask, "What just happened?" with a follow-up provided in case key information was not elicited, such as, "Why might that be important?" The lessons were presented over nine weeks.

*Continued on page 30*

The strength of our design was that instructional conditions were held constant except for the issue of interest. Thus, both the strategies and content conditions featured whole-class, teacher-led instruction with interspersed reading and discussion. Text was read aloud and student responses were elicited, acknowledged, and dealt with by the teacher to help students focus on both the task at hand of understanding the text and encouraging students to internalize a way of dealing with text. The key difference in the approaches was the kind of prompts that the teachers posed to students during reading. In the strategies condition the teacher focused on getting students to interact with the text by applying strategies, and in the content condition, teacher prompts focused on getting students to grasp important ideas and events in the text and how they were connected.

### Measures and Outcomes

We used a variety of measures to assess the outcomes of the lesson conditions that were aimed to capture different aspects of the comprehension process. This included a comprehension test for each lesson's text based on Royer's sentence verification technique (SVT) (Royer, Hastings, & Hook, 1979), recall of texts used in the lessons, recall of a transfer text, and a comprehension-monitoring task.

The SVT required students to discriminate sentence-level paraphrases and inferences of text content from false instances of the content. Thus, the measure was more text-bound and called for recognition and matching of text content with assessment items. The text recall called for a constructed response, which requires a reader to bring forth information from memory, decide which information to include in the recall, and put that information into language.

Recall of the transfer text had similar requirements but also assessed the degree to which students were able to take advantage of the scaffolding of the reading process provided for lesson texts when directing their own processing. This task was designed to follow a sequence of lessons in which the teacher gradually released responsibility for scaffolding comprehension to the students. The final two lessons in the sequence, the fourth and fifth, provided for no discussion at all, but simply teacher prompts for students to deal with the text as they had been doing in lessons. Recall was taken on the fifth and final text. Finally the comprehension-monitoring task measured a specific aspect of comprehension, the ability to identify potential obstacles to comprehension, by presenting texts to students individually that contained anomalies and asking students whether segments of the text made sense or presented any confusing information.

The outcomes of our analyses showed no differences between students in the instructional conditions on the comprehension-monitoring task or the sentence verification task. Differences were found, however, in recall of both lesson and transfer texts in favor of the content group for both years of the study. At first blush, these differences may seem like inconsistent results, but we see them as offering a meaningful pattern.

First, consider the measures applied to the lesson texts: sentence verification and recall. Sentence verification requires recognition, a less cognitively demanding task than recall, which, as a productive measure, is usually considered to capture a higher level of comprehension. Also consider that scores on the SVT were relatively high for both strategies and content groups. We take this to mean that instruction in both conditions prompted adequate comprehension from students. This was to be expected, given that both conditions provided high-quality lessons and scaffolding. As we discussed, both strategies and content instruction have been found to be successful, and in our study the lessons were carefully designed to provide faithful versions of that instruction.

The comprehension-monitoring task showed no differences between conditions. This measure was presented as a pretest/posttest comparison and did, however, show an overall pretest to posttest gain. Again, this would seem to reflect that students gained positive experiences in comprehension from both kinds of instruction, but the differences between conditions were not strong enough to bring about differential effects on texts that were well-removed from the classroom context of scaffolded lessons.

The differences in recall suggest that for higher levels of comprehension under conditions close to the learning condition, the kind of discussion fostered in the content lessons provided advantages for the students. Recall of lesson texts was directly influenced by the lesson discussion. The transfer task provided a measure of *proximal* transfer, in that it was not directly influenced by a structured lesson, but provided a similar but more generalized pattern of guidance.

### Discussion

What are the roots of the benefits that occurred for the content group in text recall? An answer appears to lie in the nature of discussion prompted by the content lessons. Analysis of the discussions showed several features that may underlie the recall results. First, lesson discussions in the content classrooms included more information that was directly related to the text than the strategies discussions. Second, content students' contributions to discussions averaged twice as long as those in strategies classrooms.

Examination of transcripts of the discussions suggests how these differences may relate to the recall advantages. We consider aspects of discussions about two of the texts from one of the classrooms in each condition for that purpose. The first text is a story by Isaac Asimov, *The Fun They Had* (Asimov, 2005), about children in the future—the year 2157. In the first segment of the text, the children discover an old printed book and are stunned by it because “the words stand still” in contrast to the books they read on their television screens. In the strategies classroom, the teacher opens discussion of this segment by focusing on comprehension monitoring, asking if anything might be confusing. A student identifies a line of text that may offer confusion: “on the page headed May 17, 2157.” When the teacher follows up by asking what the student could do to help

herself understand 2157, the student replies with a strategic procedure: "Ask a question." Another student offers a way to address the confusion, but he frames it hypothetically: "Maybe you could, like, to tell if it's a date or what—just like if it's a date, you could see how many years from now it is."

Another student identifies a confusing aspect of the text, and when asked how he cleared up the confusion, the student also replies procedurally: "Ask a question, read on, reread." Although the students in this discussion select important concepts from the text, for the most part the concepts are not used for building meaning; rather they are treated as instances of how a strategy *could be* applied.

In the content classroom, the discussion for this segment begins with the teacher asking, "So what's this all about?" A student provides a 96-word summary of the text segment in her own words, describing how the book the children found is different from those future children's experiences. Another student then weighs in, adding other relevant ideas, including that in this future time "They don't read books. They read, like, on television screens and they're shocked because the book is really old." As discussion proceeds, the teacher integrates student responses, and another student adds further elaboration.

***... the content classrooms seem to provide a kind of external model of comprehension, characterized by going through text, selecting what is important, and connecting those ideas to build understanding.***

In an example from another text, the classes are reading a story about a fifth grade girl who is running for president of her class (*Off and Running*, Soto, 2005). In the segment in focus, the girl is looking for someone famous to endorse her campaign, and her mother tells her about a relative who was mayor of a Mexican town. The discussion in the strategies classroom begins with the teacher asking for a summary. When no student responds, the teacher asks what to do to form a summary. A student responds that it is the *who, what, when, where, why, and how* of the story. For the rest of the discussion the students respond to the teachers' prompts for the *who, what, and where* with brief, direct answers.

In the content classroom, the teacher asks, "What just happened?" A student begins to describe this new character who had been a mayor. Another student chimes in to clarify the woman's relationship to the girl. The first student continues, providing a 55-word description of the events of the segment. The teacher then asks how this connects and a student responds appropriately and, again, at some length.

The discussions of the two texts show a similar pattern in that the strategies class focuses on aspects of strategy application while the content class focuses on text ideas and how they fit together. The pattern of discussion suggests that teacher questions that encourage students to express and integrate what

they've understood from text supports the development of a coherent understanding, as evidenced by their higher quality recalls of text. As the foregoing examples typify, the discussions in the content classrooms seem to provide a kind of external model of comprehension, characterized by going through text, selecting what is important, and connecting those ideas to build understanding. Strategy prompts create a path that is not directly into the text, but once removed, going first through components of the strategy (e.g., *who, what, when, where*) or generalized ways to deal with text content and issues (e.g., ask a question, reread).

Strategy prompts create a path that is not directly into the text, but once removed. That is, rather than directing students' attention to the content of the text, strategy prompts may ask students to focus on components of a strategy, such as considering *who, what, when, and where* to create a summary. Or prompts may ask students to think about general ways to deal with text, such as that a reader might ask a question, or reread to resolve confusion.

The results of our study seem to bring into focus the question of what is the active processing that is at the heart of the rationale for both strategies and content instruction. For strategies instruction, active processing comprises conscious and deliberate attention to the process, while for content it is more of an active stance—consciousness that a process exists and that active effort is needed to bring about understanding. Our findings suggest that getting students to actively build meaning while reading does not necessitate knowledge of and focus on specific strategies, but rather it may simply require attention to text content in ways that promote selecting important ideas and establishing connections between them.

## References

- Asimov, I. (2005). The fun they had. In *Trophies distant voyages* (pp. 584–592). Chicago: Harcourt.
- Baron, J. (1985). *Rationality and intelligence*. Cambridge, England: Cambridge University Press.
- Beck, I. L., & McKeown, M. G. (2006). *Improving comprehension with Questioning the Author: A fresh and expanded view of a powerful approach*. New York: Scholastic.
- Beck, I. L., McKeown, M. G., Sandora, C., Kucan, L., & Worthy, J. (1996). Questioning the author: A yearlong classroom implementation to engage students with text. *Elementary School Journal*, 96(4), 385–414.
- Brown, A. L. (1981). Metacognition and reading and writing: The development and facilitation of selective attention strategies for learning from texts. In M. L. Kamil (Ed.), *Directions in reading: Research and instruction*. Washington, DC: National Reading Conference.
- Brown, A. L. (1982b). Learning to learn how to read. In J. Langer & T. Smith-Burke (Eds.), *Reader meets author, bridging the gap: A psycholinguistic and social linguistic perspective*. Newark, NJ: Dell.
- Brown, A. L., & Smiley, S. S. (1977). Rating the importance of structural units of prose passages: A problem of metacognitive development. *Child Development*, 48, 1–8.
- Brown, A. L., & Smiley, S. S. (1978). The development of strategies for studying texts. *Child Development*, 49, 1076–1088.
- Brown, A. L., Bransford, J. D., Ferrara, R. A., & Campione, J. C. (1983). Learning, remembering, and understanding. In J. H. Flavell & E. M. Markman (Eds.), *Handbook of child psychology* (4th ed., pp. 77–166). New York: Wiley Press.
- Carver, R. P. (1987). Should reading comprehension skills be taught? In J. E. Readance & R. S. Baldwin (Eds.), *Research in literacy: Merging perspectives* (Thirty-sixth yearbook of the National Reading Conference, pp. 115–126). Rochester, NY: National Reading Conference.

*Continued on page 32*

- Cunningham A. E., & Stanovich, K. E. (1998). What reading does for the mind. *American Educator*, 22(1-2), 8-15.
- Gersten, R., Fuchs, L., Williams, J. P., & Baker, S. (2001). Teaching reading comprehension strategies to students with learning disabilities. *Review of Educational Research* 71(2), 279-320.
- Graesser, A. G., Singer, M., & Trabasso, T. (1994). Constructing inferences during narrative text comprehension. *Psychological Review*, 101, 371-395.
- Hart, B., & Risley, T. (1995). *Meaningful differences*. Baltimore: Paul H. Brookes.
- Hart, B., & Risley, T. (1999). *The social world of children learning to talk*. Baltimore: Brookes Publishing Co.
- Kintsch, W. (1974). *The representation of meaning in memory*. Hillsdale, NJ: Erlbaum.
- Kintsch, W., & van Dijk, T. A. (1978). Toward a model of text comprehension and production. *Psychological Review*, 85(5), 363-394.
- McKeown, M. G., Beck, I. L., & Blake, R. G. K., (in press). Rethinking reading comprehension instruction: A comparison of instruction for strategies and content approaches. *Reading Research Quarterly*.
- National Reading Panel (2000). *Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction*. Washington, DC: National Institute of Child Health & Human Development.
- Palincsar, A. S., & Brown, A. L. (1984). Reciprocal teaching of comprehension-fostering and comprehension-monitoring activities. *Cognition and Instruction*, 2, 117-175.
- Pearson, P. D., & Fielding, L. (1991). Comprehension instruction. In R. Barr, M. Kamil, P. Mosenthal, & P. D. Pearson (Eds.), *Handbook of reading research* (Vol. 2, pp. 815-860). New York: Longman.
- Pressley, M., El-Dinary, P. B., Gaskins, I., Schuder, T., Bergman, J. L., Almasi, J., & Brown, R. (1992). Beyond direct explanation: Transactional instruction of reading comprehension strategies. *Elementary School Journal*, 92(5), 513-555.
- Royer, J. M., Hastings, C. N., & Hook, C. (1979). A sentence verification technique for measuring reading comprehension. *Journal of Reading Behavior*, 11, 355-363.
- Sinatra, G. M., Brown, K. J., & Reynolds, R. (2002). Implications of cognitive resource allocation for comprehension strategies instruction. In C. C. Block & M. Pressley (Eds.), *Comprehension instruction: Research-based best practices* (pp. 62-76). New York: Guilford Press.
- Snow, C. E., Burns, M. S., & Griffin, P. (1998). *Preventing reading difficulties in young children*. Washington, DC: National Academy Press.
- Soto, G. (2005). Off and Running. In *Trophies distant voyages* (pp. 492-506). Chicago: Harcourt.
- Sternberg, R. J. (1979). The nature of mental abilities. *American Psychologist*, 34, 214-230.
- Sternberg, R. J. (1982). A componential approach to intellectual development. In R. J. Sternberg (Ed.), *Advances in the psychology of human intelligence*, Vol. 1. Hillsdale, NJ: Erlbaum & Associates.
- Symons, S., Snyder, B. L., Cariglia-Bull, T., & Pressley, M. (1989). Why be optimistic about cognitive strategy instruction? In C. McCormick, G. Miller, & M. Pressley (Eds.), *Cognitive strategy research: From basic research to educational applications*. New York: Springer-Verlag.
- Trabasso, T., Secco, T., & van den Broek, P. W. (1984). Casual cohesion and story coherence. In H. Mandl, N. L. Stein, & T. Trabasso (Eds.), *Learning and comprehension of text* (pp. 83-111). Hillsdale, NJ: Erlbaum.
- Van den Broek, P., Young, M., Tzeng, Y., & Linderholm, T. (1998). The landscape model of reading: Inferences and the on-line construction of a memory representation. In H. van Oostendorp & S. R. Goldman (Eds.), *The construction of mental representations during reading* (pp. 71-98). Mahwah, NJ: Erlbaum.

**Margaret G. McKeown, Ph.D.**, is a Clinical Professor of Education and Senior Scientist at the Learning Research and Development Center, University of Pittsburgh. Dr. McKeown's work focuses on reading comprehension and vocabulary. She received her Ph.D. in education from the University of Pittsburgh. She is the co-developer, with Isabel Beck, of *Questioning the Author* and robust vocabulary instruction. Before her career in research, Dr. McKeown taught reading in elementary school.

**Isabel L. Beck, Ph.D.**, is Professor Emerita at the University of Pittsburgh. Dr. Beck has conducted extensive research on decoding, vocabulary, and comprehension, and has published many journal articles and several books on these topics. She received her Ph.D. in education from the University of Pittsburgh. Her work has been acknowledged by awards from the National Reading Conference, the International Reading Association, and the American Federation of Teachers. Most recently she was elected to the National Academy of Education.

**Ronette G. K. Blake** is a Research Specialist at the Learning Research and Development Center at the University of Pittsburgh. She received a B.S. from Carnegie Mellon University and is currently working on a master's degree in Applied Developmental Psychology at the University of Pittsburgh.

Correspondence may be sent to Margaret G. McKeown, Ph.D., Senior Scientist Learning Research and Development Center, Clinical Professor, School of Education, 3939 O'Hara St., University of Pittsburgh, Pittsburgh, PA 15260. e-mail: mckeown@pitt.edu

Join us for the  
**2009 INTERNATIONAL DYSLEXIA ASSOCIATION  
 60<sup>TH</sup> ANNUAL CONFERENCE**  
 November 11-14, 2009  
 Walt Disney Swan Dolphin Resort  
 Orlando, Florida

