Help for struggling upper-grade elementary readers

Self-generated, main-idea questions helped three fifth graders internalize the effective reading behaviors that can lead to improved academic performance.

Upper-grade elementary school teachers often notice a puzzling phenomenon: Students who were judged to be successful readers in the primary grades seem overwhelmed by upper-grade reading tasks. Why do struggling readers seem to “come out of the woodwork” in fourth and fifth grade, and what can be done to help them? The problem may result in part from the lens we use to look at children’s reading. An emphasis on mechanical reading skills in the primary grades may result in a distorted and inflated view of reading proficiency. Limited comprehension skills may be masked by the controlled vocabulary and simple sentence structure of primary texts. When children confront the complex vocabulary and syntax that characterize upper-grade texts, serious reading problems are often revealed for the first time.

A fourth- or fifth-grade student’s inability to read grade-level texts proficiently is a very serious problem, for reading is far more than a set of skills that must be mastered. Reading is the vehicle for acquiring knowledge in the upper-grade classroom, a necessary precursor to completing academic tasks across the curriculum. When children enter the upper grades unable to read proficiently, their academic performance rapidly spirals downward. Without effective intervention, struggling upper-grade readers are likely to experience frustration and failure as they move into middle school and beyond.

The problem

Teachers know that proficient reading entails a broad array of cognitive and linguistic skills, including vocabulary, topic knowledge, memory, the ability to draw inferences, and awareness of purpose (Sweet & Snow, 2002). Proficient reading is also dependent on fluency, the ability to lift words off the page automatically and efficiently (Samuels & Flor, 1997; Stahl, 2002). Automaticity in the mechanics of reading allows children to direct cognitive resources to comprehension, a higher level reading task. Just as children need to learn to identify letters and sounds automatically, they need to develop comprehension fluency in constructing meaning as they read (Pressley & Afflerbach, 1995). Proficient reading requires children to decode and comprehend simultaneously as they move through a text (Samuels, 1994).

According to LaBerge and Samuels (1974), children’s capacity to hold information in memory is very limited and, in the initial stages of reading, decoding requires nearly all of their cognitive resources. Only after a text has been successfully decoded are young readers able to focus on comprehension. Beginning readers typically switch back and forth between decoding and comprehension several times as they move through a text, a process that requires a great deal of effort. When all goes well, the mechanics of reading become automatic and proficient, freeing cognitive resources to focus on comprehension.

When children fail to develop automatic, proficient reading skills, the reading process becomes bifurcated. Struggling readers continue to switch back and forth from decoding to comprehension, a process that is increasingly difficult and ineffective.
as text demands accelerate and reading skills remain static. Decoding demands most of children’s cognitive resources, and comprehension is neglected or overlooked completely. As children move into the upper grades, the inability to focus cognitive resources on comprehension often results in reading failure.

I first became aware of upper-grade reading failure when teaching a class of 34 fifth-grade students. A few weeks into the school year, I noticed that several students were having a great deal of trouble with their assignments. Their work reflected little comprehension of texts, and they appeared unable to complete routine tasks successfully. It was evident that they were struggling with the fifth-grade curriculum despite reading scores that documented adequate progress in the primary grades. Janis, John, and David were three of these students (all names are pseudonyms).

Three struggling readers

Janis was the first student I selected to screen for reading problems, due to her poor work and obvious frustration. When asked to read aloud for me, Janis read a page from our core literature book with adequate accuracy and fluency. Then I asked her a simple comprehension question. Janis immediately returned to the top of the page and began to read the text again. She continued to read line by line through the text until she was able to identify a response to my question. It appeared that decoding and comprehension were entirely separate reading processes for her. If I had not asked a comprehension question, it is unlikely that Janis would have returned to the text or noticed that her reading performance was inadequate.

John was identified as a struggling reader when he failed a social studies test and came to me for help. I asked him to read a page of the social studies textbook aloud so that I could assess his reading skills. John read slowly and carefully, pronouncing each word correctly. When he finished reading, I asked a main-idea question containing the exact wording of one of the subheadings in the text. John looked at me helplessly and was unable to respond. I suggested that he look carefully at the text to see if he could locate the answer. John did not appear to realize that my question was based on a chapter subheading, and he was completely unaware of the content of the text he had just finished reading. I asked John to describe how he had studied for the social studies test. He replied that he had read the chapter three times. A diligent student, John had worked hard and tried to study the material in the book. Unfortunately, his lack of comprehension precluded successful learning even when he read the text over and over.

David, a charming and articulate student, was not identified as a struggling reader for some time, due to his ability to compensate for poor comprehension. He earned high grades on projects and assignments, but eventually I noticed that his best friend, a high-performing student, did most of the work. When David had to complete an assignment independently or take a test, his work was very poor. I called him to my desk for a reading assessment and found that he was unable to answer simple comprehension questions. David tried to joke and evade the task, but when I insisted that he answer my questions he admitted that he didn’t understand the book very well.

Having identified Janis, John, and David as struggling readers, I administered a series of reading assessments. These teacher-developed assessments were closely linked to my curriculum and were intended to provide information that I could use to guide instruction and track the students’ progress. The results of the running record and the number of words read per minute indicated adequate reading accuracy and fluency. To assess the students’ reading comprehension, I administered two tests. The first test, given to the entire class, was based on a set of four 200-word reading passages and followed by eight comprehension questions per passage. The test materials were taken from a teacher’s resource book of reading comprehension assessments (Mueser & Mueser, 1997). The class averaged 75% on this test, but Janis, John, and David’s scores ranged from 30% to 40%. I also administered three holistic reading assessments taken from the fifth-grade basal series (Harcourt Brace, 1997). Each test comprised a two- to three-page story followed by eight multiple-choice comprehension questions (a total of 24 questions).

Janis’s, John’s, and David’s scores on the second reading comprehension test were below 40%, confirming my hunch that these students
understood very little of what they read. Despite successful reading performance in the primary grades, Janis, John, and David were severely impaired readers. They had learned to direct all of their cognitive resources into the process of decoding. Comprehension, a separate process for the students, required greater cognitive efforts and was largely ignored. For Janis, John, and David, reading was bifurcated into completely separate processes, and they were unaware that they were only implementing the most superficial aspects of reading. A successful reading intervention for these students would entail integrating decoding and comprehension into a single process of reading.

The solution

Janis, John, and David participated in a wide variety of literacy activities with the rest of the fifth-grade class. Instruction in language arts and social studies was integrated, weaving together the core literature novel, *The Sign of the Beaver* (Speare, 1983), and a unit on Native Americans and European settlement. Thematically related instruction was designed to help children acquire background knowledge that would strengthen comprehension of the literature and textbook.

Reading instruction included vocabulary development activities and an intensive program of cognitive strategies. Reciprocal teaching activities took place several times per week, emphasizing the collaborative construction of meaning from texts. Writing was also integrated with unit instruction. Children wrote creative stories, Native American reports, and persuasive essays. They were taught to use graphic organizers to analyze story elements and as prewriting devices.

Despite a rich literacy environment, Janis, John, and David struggled to keep up with the other students. It was clear that an intervention was necessary if they were to become proficient readers.

The intervention model

The intervention that I developed for Janis, John, and David was based on the cognitive strategy research. Theorists have identified cognitive strategies as the tools that children use to manage the information processing system. According to Weinstein and Mayer (1986), such strategies can be taught to children to improve learning outcomes. I also found that Palincsar and Brown identified the cognitive strategies (questioning, clarifying, summarizing, and predicting) that are consistently used by expert readers (Brown, 1985; Brown & Palincsar, 1985, 1986; Palincsar & Brown, 1983, 1984). Palincsar and Brown integrated these strategies with a text-based dialogue known as reciprocal teaching. The method was designed to improve the reading comprehension achievement of struggling upper-grade readers. These two researchers conducted numerous studies, demonstrating that brief strategy-based interventions were effective in improving children’s reading comprehension. For example, classroom teachers in one study (Palincsar & Brown, 1984) were trained to provide reciprocal teaching interventions to their struggling seventh-grade students. Results of the study demonstrated significant improvement in student achievement. Scores rose from an average of 40% on the pretest to a posttest mean of 80% on researcher-designed reading comprehension tests. These results were typical of reciprocal teaching interventions, documented in Rosenshine and Meister’s (1994) review of the reciprocal teaching literature.

Other programs of cognitive strategy instruction also produced positive results. Paris (1984) and Cross and Paris (1988) taught third- and fifth-grade teachers to implement Informed Strategies for Learning, a four-month program of intensive strategy instruction. Students made significant gains in reading comprehension following the intervention. Schuder (1993) used Transactional Strategy Instruction (TSI), a program that included prediction, imagery, clarification, relating text to prior knowledge, and summarization. TSI was developed by Pressley and his associates and was effective in improving students’ reading comprehension. Brown, Pressley, Van Meter, and Schuder (1994) used a similar program of multiple strategies called Students Achieving Independent Learning (SAIL). Reading comprehension scores of the second-grade students improved significantly following a year of SAIL instruction.

Having learned that teaching children to use a repertoire of strategies is effective in strengthening reading comprehension (Block, Gambrell, & Pressley, 2002), I began working with my struggling readers using the four reciprocal teaching
strategies: questioning, clarifying, summarizing, and predicting. It soon became apparent that this method would not work well in the brief intervention periods. Students did not have enough time to implement multiple strategies, resulting in a great deal of frustration. Realizing that instructional time in an intervention is very limited, I decided to develop an intervention that would provide powerful and practical support for my struggling readers.

I discovered an important piece of information in Rosenshine, Meister, and Chapman’s (1996) review of the questioning research. These researchers noted that in reciprocal teaching studies children spent at least 75% of the time engaged in questioning activities. They concluded that self-generated questioning had a powerful effect on reading comprehension and the other three strategies contributed little additional benefit. I also learned that question generation was one of the cognitive strategies recommended by the National Reading Panel (National Institute of Child Health and Human Development, 2000). This research convinced me that questioning was the powerful, practical strategy that would provide my struggling readers with the help they needed.

**Self-generated, main-idea questioning**

Having decided to base my intervention for struggling readers on self-generated questioning, I returned to the research. I found that a specific method, teaching children to focus on the main idea of a text, was an essential component of many successful interventions. Carefully examining the dialogues that Palincsar conducted (1984, 1985, 1986), I noticed that when children were taught to generate main-idea questions they were forced to comprehend as they read. This was the method I had been searching for: a method that would force the reading processes together. I hoped that this approach would help my struggling students develop the automatic reading comprehension skills they needed for academic success in the upper grades.

The reason that main-idea questioning is effective in improving children’s reading comprehension is that it helps children manage the complex series of information-processing tasks involved in proficient reading (Kintsch, 1998; Kintsch & Van Dijk, 1978; Samuels, 1994; Weinstein & Mayer, 1986). This is how main-idea questioning works:

The reader decodes and constructs meaning while moving through the text. Information gleaned from reading is held in working memory as a gist is constructed. The reader distills a main idea from the gist of the text. Holding the main idea in working memory, the reader considers questioning options, selects the best question word, and generates a main-idea question. The entire sequence of information processing tasks must occur very quickly as reading progresses, forcing the integration of decoding and comprehension. Generating main-idea questions requires the reader to think about the meaning of a text as it is read, a process that becomes easier with practice. Over time, main-idea questioning helps children internalize effective reading behaviors, leading to improved academic performance.

**The instructional sequence**

I designed an instructional sequence to help my struggling readers generate main-idea questions. It was based on a Questioning Cue Card (see Sidebar). The following is an example of a think-aloud, used as part of the explicit modeling of the main-idea questioning strategy. The teacher is introducing the students to *The Witch of Blackbird Pond* (Speare, 1986) and uses the picture on the book cover to activate the students’ background knowledge and to spark their interest in reading.

**Teacher:** Today we’re going to work on the questioning strategy. I’d like you to follow along as I read the first paragraph in the book. Then listen as I think aloud. I will try to figure out the main idea of the paragraph and come up with a main-idea question. Before I start, let’s talk a little about this book. Look at the picture on the front cover and tell me what you think the book will be about.

(Shows *The Witch of Blackbird Pond* to the students)

**Students:** A girl, a woman, a Pilgrim, a witch, the pond, something that happened a long time ago.

**Teacher:** OK, great! You have some good ideas about the book. We know that it will be about a young woman. We can see by the clothing that it took place a long time ago. We can tell by the title that it will have something to do with witchcraft. Now, I’m going to read the first paragraph and I’d like you to follow along in your books.
On a morning in mid-April, 1687, the brigantine Dolphin left the open sea, sailed briskly across the Sound to the wide mouth of the Connecticut River and into Saybrook harbor. Kit Tyler had been on the forecastle deck since daybreak, standing close to the rail, staring hungrily at the first sight of land for five weeks. (Speare, 1986, p. 1; Copyright © 1958, and renewed 1986 by Elizabeth George Speare. Reproduced by permission of Houghton Mifflin Company. All rights reserved.)

I've thought about each sentence as I read the paragraph. Now it's time to build: I'm going to try to figure out what the main idea is. Let's see...the book says that the ship is sailing into Saybrook harbor and Kit sees land for the first time in five weeks. That's a long time to be on a ship. It says that she is staring hungrily at the land. I think that's the main idea.

She's eager to get off the ship and onto the land.

I'm going to ask a main-idea question. I'll use a question word who, what, when, where, why, or how to turn the main idea into a question. I think I'll use why for my question.

Why was Kit looking hungrily at the land?

Because she wanted to get off the boat.

Right! Wouldn't you be eager to get off the ship if you were Kit?

The instructional sequence continues with additional modeling by the teacher, responses by the students, and coaching of the students as they attempt to generate their own main-idea questions.

Implementing the intervention

Having identified my struggling readers and developed a plan to remediate their reading problems, the next step was to implement the intervention. I scheduled time to meet with Janis, John, and David daily while the other 31 students in the class were engaged in Sustained Silent Reading.

When we first began to work together, the students found generating main-idea questions...
extremely difficult. Janis looked at me blankly and had to reread the text multiple times. John stuttered and struggled, and David tried to change the subject. In this dialogue, conducted during the first week of the intervention, John read the following paragraph from the core literature book, *The Sign of the Beaver*, and was trying to generate a question with coaching from me.

John: (Reads from text)
There was no way he could get that trap open with the dog in this maddened state. Somehow he would have to find Attean. He began to run through the forest, back over the way he had come, back along the trails he knew, searching his memory for the signs he remembered that led to the Indian village.

(Speare, 1983, p. 92; reprinted by permission)

Teacher: Good reading, John! Now try asking a question.

John: Uh...I don't know.

Teacher: Take your time.

John: I can't.

Teacher: That's okay. Try a question starting with "where".

John: Where...uh...I don't know.

Teacher: Where did Matt go when the dog was hurt? You try it!

John: Where did Matt go when the dog was hurt?


The coaching I provided at this early stage in the intervention included explicit modeling and a great deal of encouragement. When John was unable to start a question, I suggested a question word, *where*. When he was unable to use the prompt, I constructed a question and asked him to repeat it. John’s reading and questioning skills were shaky but improved rapidly with the daily intervention. Soon my explicit modeling was replaced by question-word prompts. These helped John construct main-idea questions based on the text. After two weeks in the intervention group he was able to generate questions independently, leading a text-based discussion with little help from me. The following dialogue demonstrates the progress that John and David made after two weeks in the intervention group.

Teacher: Today we’re going to read the social studies chapter so you’ll know what it’s about when we read it in class this afternoon. John, you go first. I want you to read a paragraph and come up with a main-idea question.

John: (Reads a paragraph from the textbook)
“After about 1,000 years, the Anasazi left their settlements on the mesa tops and moved to cliff dwellings. Historians believe that the Anasazi may have feared an enemy culture. They then moved to homes that were easier to defend from enemies. From these cities—like Mesa Verde—the Anasazi climbed up the canyon walls to tend their crops on top of the mesas” (Armento, Nash, Salter, & Wixson, 1991, p. 87; reprinted by permission).

John: Umm...I think it’s about homes...you know...I mean...What were their homes?

Teacher: Good, John! Do you mean, “What were their homes like?”

John: Yeah, what were their homes like?

David: Like places in the cliffs?

Teacher: John?

John: Yeah, that’s right!

Teacher: Great! That’s the main idea of the paragraph.

The information processing skills that John was using to generate a main-idea question are clearly evident in this dialogue. He read the text, formulated a gist, identified the main idea, and then attempted to construct a main-idea question. At this point John needed only minimal coaching from me.

The dialogue also demonstrates an important point: Using grade-level texts for a reading comprehension intervention helps to prepare struggling readers for successful participation in whole-class instruction. Janis, John, and David practiced reading comprehension skills and acquired social studies content knowledge that would support independent reading of the textbook. After reading and generating main-idea questions in their intervention group, the students were able to participate actively in whole-class social studies activities.

I worked with Janis, John, and David for approximately 25 minutes daily. After three weeks I
administered a second set of reading comprehension tests parallel to those that had been administered prior to the intervention. All three students demonstrated improved reading comprehension, measured by the posttests. John averaged 78% on the posttests, and David’s average score was 76%. John and David also demonstrated improved performance in the intervention sessions, generating and answering text-based questions quickly and accurately. Their success in generating main-idea questions suggested progress in integrating the decoding and comprehension processes.

Janis, whose average posttest score was 57%, lagged behind the others in reading comprehension. During intervention sessions she continued to reread the text multiple times and still required a great deal of prompting to generate a main-idea question. It was clear Janis needed additional support from me at this point in the intervention. I decided to remove some of the pressure from her by reading the text aloud. This enabled Janis to focus all of her cognitive resources on comprehending the text and generating a main-idea question.

In this dialogue conducted in the third week of the intervention, I was reviewing *The Sign of the Beaver* with the students in preparation for a test later that week. Turning to the first page in the book, I asked Janis to concentrate on comprehension as I read the text aloud.

Teacher: (Reads aloud a paragraph from the fifth-grade core literature book) Matt stood at the edge of the clearing for some time after his father had gone out of sight among the trees. There was just a chance that his father might turn back, that perhaps he had forgotten something or had some last word of advice. This was one time Matt reckoned he wouldn’t mind the advice, no matter how many times he had heard it before. But finally he had to admit that this was not going to happen. His father had really gone. He was alone, with miles of wilderness stretching on every side.

(Speare, 1983, page 1)

Teacher: Okay, Janice, go ahead and ask some questions.

Janice: Umm...

Teacher: Try to picture what I just read and ask us a main idea question...

Janice: Umm...what does “reckoned” mean?

Teacher: Okay, that’s a good clarifying question. We can get to that later. Let’s try to ask main idea questions now.

Janice: Why was he (Matt) there?

Teacher: Great question! That’s the main idea of this chapter.

(Lubliner, 2001, pp. 89–90; reprinted by permission of Wright Group/McGraw-Hill)

This dialogue portrays a milestone in Janis’s reading comprehension development because it was the first time she successfully asked a question without reading the text multiple times. I read the text aloud to Janis several more times before asking her to read and generate questions herself. Oral comprehension skills were gradually replaced by reading comprehension skills as Janis learned to generate main-idea questions in response to independent reading. The intervention that helped David and John had to be modified to provide the support that Janis, a more severely impaired reader, needed.

David and John were released from the intervention group after three weeks, a typical time frame for most of my struggling readers. Janis, however, needed more help and remained in the intervention for eight weeks. All three students seemed to benefit from the intervention and continued to make steady progress after being released. The students who participated in the intervention gained skills in conducting text-based dialogues that were quite useful to them in the classroom. When the whole class was engaged in reciprocal teaching dialogues, the intervention graduates were often observed guiding their peers in the discussion. Three or more weeks of practice in the intervention group appeared to have provided them with confidence in their ability to use strategies and to discuss texts.

Janis, John, and David were the first of many students to participate in the intervention group in my fifth-grade classroom. Eventually they completed fifth grade and moved on to middle school. It is my hope that Janis, John, and David are no longer struggling upper-grade readers.

A final word

There are undoubtedly many factors that contribute to reading failure in upper-grade students.
Lack of fluency, limited background knowledge, and vocabulary deficits, for example, often interfere with reading progress. Children sometimes master the mechanics of early reading in the primary grades but fail to integrate decoding and comprehension processes. When confronted with difficult words and confusing text passages, young children may develop the habit of skipping words and skimming the surface of the text. These ineffective reading habits originate in the primary grades but become evident later when the difficulty level of texts increases. Janis, for example, appeared to be developing adequate reading skills in her first few years in school. When she entered fourth grade, however, Janis encountered textbooks and novels with complex language and vast numbers of unknown words. Her poor reading skills were unmasked, and she was no longer able to understand grade-level texts. By the time she entered fifth grade, Janis’s poor reading comprehension was the cause of generalized academic failure.

A strong foundation of reading comprehension instruction in the early years of school may help children like Janis avoid reading failure in the upper grades. But, when primary reading instruction falls short, it is not too late to provide a powerful reading intervention to children who have entered the upper grades without adequate reading comprehension skills. A rich literacy environment, with an emphasis on vocabulary acquisition, and instruction in multiple cognitive strategies are likely to be of help to struggling readers (National Institute of Child Health and Human Development, 2000). In addition, a short-term instructional intervention based on self-generated, main-idea questioning offers practical and effective support for students such as Janis, John, and David.

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**References**


