

# RESEARCHWORKS

Discoveries in action at the University of Minnesota College of Education and Human Development

## Ask and You Shall Receive

COGNITIVE ENGAGEMENT BOOSTS READING ACHIEVEMENT

BY SARAH ASKARI

Engaged learners are successful learners. But how do teachers ensure that a class of beginning readers become enthusiastic, proficient readers? It may be a matter of asking the right questions.

At the [Minnesota Center for Reading Research](#) (MCRR), director **Barbara Taylor** and her colleague **Deb Peterson** discovered a critical distinction in outcomes between teachers who use primarily lower-level questioning and those who elicit higher-level cognitive responses. Reading skills among students whose teachers consistently prompted higher reasoning grew more than in a comparable group. Even more promising, the use of a cognitive engagement model has helped students who are not reading at grade level to catch up.

The cognitive engagement model, a framework for reading instruction, encourages teachers to coach and model rather than lecture; to explicitly teach strategies for reading comprehension; to provide instruction that encourages every child to read, write, and share his or her work; and to stimulate discussions with high-level questions.

Low-level questions involve factual recall and require minimal thought or engagement, explains Peterson, who is acting co-director of MCRR while Taylor is on sabbatical. To reach early readers, classroom instruction must also engage their higher-level thinking.

“Higher-level questions look at a bigger theme and make connections between what the students are reading and their real lives,” Peterson continues. “For instance, friendship might be a story’s theme. Some higher-order questions might be, ‘Have you and your friends been in a situation like the one in the story? How did you resolve it? If you were this character, what would you do, and why?’ ”

Of course if you surprise children with sophisticated questions, you might get blank stares. Teachers can guide their students by modeling possible responses that demonstrate the critical thinking process. For example, Peterson says, “You can tell your students, ‘If someone were to ask me that question, I might answer it this way. Now you think about it, and write about it, and we’ll come back and talk.’ ”

The goal is for all students to be occupied in reading, writing, or talking in small groups. By prompting students to elaborate on their responses and to make connections to what they have read, teachers can keep their students immersed in the learning experience.

### What the research shows

In a 2003 study of reading instruction at nine high-poverty schools across the United States, researchers discovered that teachers practicing the cognitive engagement model prompted more growth among their students in reading fluency and comprehension from fall to spring. “The more

Teachers who prompt higher reasoning get reading results.



Modeling critical thinking empowers students.

it occurs, the more achievement students have in reading, and that's true for all students—the English language learners, the special ed students, the gifted and talented students," says Peterson. "K–6, the more we see higher-order talk about text, the more growth and achievement students have in reading."

The improvement in reading skills can be rapid. "In many of the schools we're working in, children are coming in significantly below national norms. We try to accelerate their growth so they're making more than a year's growth in a year's time," says Peterson.

### What others are saying

Through Reading First, a federally funded, reading reform initiative, Minnesota schools such as Woodcrest Elementary School in Fridley have received staff development support from MCRR. "After studying higher-level questioning for the past four years, our teachers use the method not only during reading instruction, but throughout the day," says **Judi Kahoun**, principal of Woodcrest. "We have seen that all students benefit, leading to deeper thinking about the text and an increase in comprehension scores."

**Jenny Mortimore**, St. Paul's Reading First district literacy coordinator, says, "In the Reading First schools, the performance of students whose teachers implemented the cognitive engagement model proved that when the overall approach to teaching is a student-support stance with an emphasis on the teacher modeling and engaging students in discussions around higher-level questioning and thinking, students grow at measurable levels in their vocabulary knowledge and comprehension skills." She adds, "English language learners also benefit from focused modeling and discussion, expanding their vocabularies and their capabilities to articulate their thinking. It is an avenue to the development of life-long critical thinkers."

### Research in action

Over the past eight years, many Minnesota teachers have become familiar with the cognitive engagement model through Reading First. They learned to reflect upon their own classroom instruction, compare their actions to the teaching methods supported by the cognitive engagement model, and to make changes accordingly. Now many of these schools are in a "sustaining" mode, where they continue this method of reflection, comparison, and change on their own.

MCRR continues to share its discoveries through professional development workshops for teachers, school teams, and reading coaches. Through its studies on schoolwide reading reform, the MCRR staff can provide schools with information on effective reading instruction and schoolwide reading reform that is validated by research and proven in local schools.

"Our mission is to bridge research with practice," says Peterson.

### Online resources

Center for the Improvement of Early Reading Achievement, <http://www.ciera.org>

Taylor, B.M. & Peterson, D.S. (2006) "The Impact of the School Change Framework in Twenty-three REA Schools," <http://cehd.umn.edu/reading/reports.html>

Taylor, B.M. (2007) "The What and the How of Good Classroom Reading Instruction in the Elementary Grades," <http://cehd.umn.edu/reading/reports.html>

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Students below grade level can make more than one year's growth.

English language learners benefit from modeling and discussion.

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