

*What works is work!*

## Reading a Math Textbook

Another one of the *teacher expectancies* requires classroom teachers to assign reading as part of their daily lessons.

Some classroom teachers have argued that students cannot read at the level of their textbook, therefore they do not give students a reading assignment. If you think about that for a moment, you realize that is an ill-conceived conclusion. By not assigning reading, students will be less able to read and their reading ability will continue the downward spiral.

Reading math text is different from reading a novel. Students and their parents might not realize that, so classroom teachers have to teach students to read mathematics.

When assigning reading in mathematics, teachers should explicitly introduce new vocabulary and notation before assigning the reading. Teachers should preview the reading and connect the reading to previous knowledge. After the students have read the assignment, teachers should check for student understanding of the reading and correct their understanding – just as they do with homework problems.

Students should have a paper and pencil to assist them in their reading of math content. Students reading mathematics don't read by chapter, by section, by page, by paragraph or sentence, they typically read phrase by phrase – every word counts. Students should copy important information, definitions, formulas, examples, and draw pictures to help them comprehend what they are reading.

As students read an assignment, their eyes will dart back and forth from their reading, to diagrams, to examples, and back to their reading. They will generally re-read a phrase a number of times before they feel comfortable enough to continue reading.

Students who have experienced success in mathematics don't like or feel comfortable reading their math text. They want it explained to them. Students who have not experienced success in math see reading a math text as futile, a waste of their time, and intimidating. Teachers need to teach students how to successfully read their math text. If the math teachers don't, who will?

Teachers cannot increase student achievement in mathematics if the students cannot read mathematics – if they cannot translate English to math and math to English. All of today's high stakes tests are made up of word problems – students have to know how to read mathematics.

Site administrators should ensure that their staff is teaching students to read in the content areas. As administrators observe instruction, they should see evidence of reading assignments, see the

new vocabulary and notation, they should hear teachers previewing and connecting the reading or checking and correcting their understanding of what has already been read. If school administrators are not checking for this *teacher expectancy*, they should not expect it to be happening in the classroom – nor should they expect an increase in student achievement.