

Not-So-Basic Basic Skills

If you were asked what you remember about learning to read or to do basic arithmetic, you might recall some fleeting images: being read to by a parent or studying a book with big letters and pictures at your school desk. By now these skills have become a part of who you are and how you see the world. Indeed, literacy and numeracy have become so automatic to many adults they are essentially invisible, so second nature that we don't really understand how someone could have trouble learning something so simple. But in fact, these skills are not so basic or so simple. As the research on literacy shows, the reading process that most of us take for granted is highly complex. As we "decode" a text, we bring to bear a vast reservoir of linguistic and cultural knowledge, connecting new ideas with old ones, figuring out words we may not know, actively questioning what we read as we read it, trying out and refining our understandings and responses.

The same is true in mathematics. In a book that has been highly influential on all sides of the math wars, Carnegie Foundation scholar Liping Ma writes about *Profound Understandings of Fundamental Mathematics (PUFM)*. Ma's work illustrates the complex knowledge and skills that are required in order fully to learn (and to teach) even the most apparently simple mathematical functions.

This view of basic skills has significant implications for teaching and learning. Basic skills courses are notorious for "drill and kill" and "dumbed-down" instruction. Yet understanding the complex processes and understandings entailed in successful reading, writing and mathematical problem solving points to a very different approach. This approach means being explicit with students about assumptions and processes that have become automatic to us; it means making these processes and assumptions visible to students as habits they can develop, rather than as gifts given exclusively to instructors; and it means creating an educational environment where students learn about themselves as learners and develop strategies for success.

Additionally, this "not-so-basic" view of basic skills calls on educators to challenge and engage students much more deeply. Repetition and practice are good things, but memorization and drill without a connection to big ideas can frustrate students and teachers both. No one becomes a writer or reader merely by learning grammatical rules, and memorizing a mathematical formula does not by itself lead to the kinds of quantitative literacy that are needed today. Nor is this kind of approach necessary. Even at the most fundamental levels of English and mathematics, intellectually engaging problems and issues exist in abundance. With a balance of challenge and support, students can engage in lively, authentic debate and intellectual exchange.