

# LEARNING

## TAKING THE MISERY OUT OF MATH

Math itself is not difficult to learn, says Alan Natapoff. The problem lies in the complicated way the subject is taught. Natapoff, a brain researcher at the Massachusetts Institute of Technology, thinks he has a way to make math easier to learn: Teach it like a foreign language.

He does it by downplaying mathematical theory in favor of practice, practice, practice—plenty of rote repetition, simplified blackboard displays and learning by doing. The instruction, which is delivered in everyday language, inches forward in tiny increments, helped along by a few Natapoff shortcuts and lots of encouragement. "The whole point," says the educator, "is to be able to do math without thinking." Intuitively, that is.

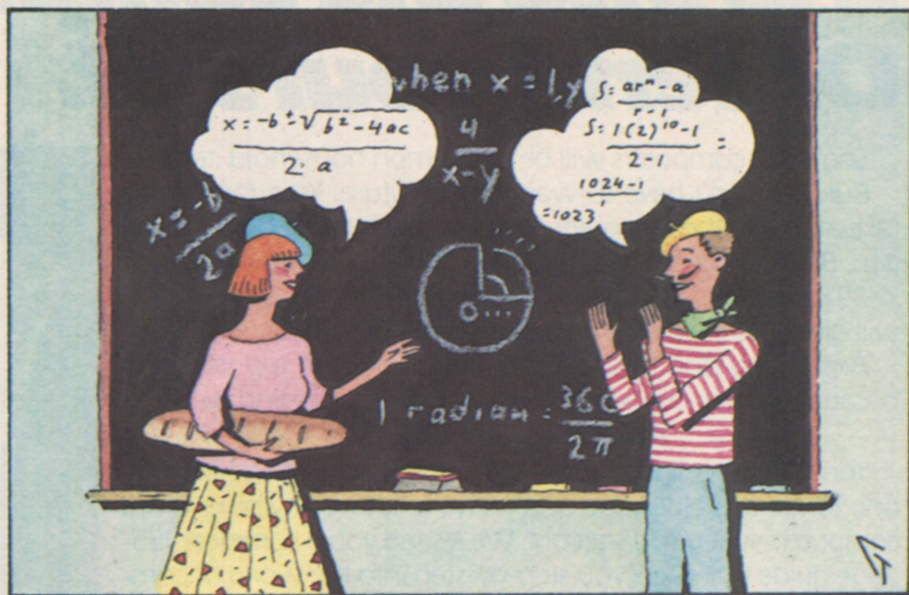
Natapoff is developing his program by working with students of all ages who suffer from math anxiety—the fear of math. He claims to have cut the time it takes to learn arithmetic by as much as two-thirds. If Natapoff's system becomes popular, that's a fraction that even math-haters may come to appreciate.

## ELEMENTARY CHIC

Project Munch may not sound especially couth, but it is exposing elementary-school children to the civilized art of social dining—something dying out in the home. Instead of madly rushing through the cafeteria line, the children sit at tables and lunch is served by older students to younger ones.



Mannered Munching: Schoolchildren get ready for a course in Civilized Dining 101.



Pioneered by the Oakham Center School in tiny Oakham, Massachusetts, the project also tries to teach the value of nutrition. Four other schools in the state have formally adopted the program; two more are testing it. So far, waste has been cut by 30 percent and the children dine more politely. Says one Oakham administrator: "I don't mind eating with the children at all now."

## HELPING DYSLEXICS

Dyslexia—difficulty in comprehending the printed word—has often been blamed on bad teaching or problems at home. But what if it's caused by a genetic flaw? For one thing, early diagnosis could give parents a better chance to help children afflicted with the condition.

In preliminary tests of dyslexics, Shelley Smith of the University of Miami found an association between a certain chromosome and the learning disorder. Her discovery came only months after Dr. Albert Galaburda, a Boston neurologist, found an aberrant cell structure in the brain of a deceased dyslexic. Galaburda says that the anomaly could have been caused by the genetic defect. If this is confirmed, doctors could identify dyslexia by examining fetal cells.

Dr. Herbert Lubs of the University of Miami sees another benefit. "It would get dyslexic children off the hook of being called lazy or retarded," he says. "That would remove a huge emotional burden."

## BIOLOGY IN A BETTER LIGHT

Chalk up another triumph for fortuitous discovery.

The latest happy accident has led to a new kind of microscope, which will allow scientists their closest look yet at living cells. (Electron microscopes can be used to examine only dead tissue.)

To provide a screen display of magnified cells, Dr. Robert Allen, professor of biological sciences at Dartmouth College, focused a television camera through a standard light microscope. It turned out that the camera was better than the human eye at "seeing" tiny details. Allen plans to use computer enhancement for further development of the technique, which seems likely to make the video screen required equipment for microscopes of the future.

## ON THE HORIZON

- An IBM Selectric for Johnny. Typewriters are being used in Florida to teach kids to read and write, on the premise that youngsters can type more easily than they can handwrite, lessening frustration.

- Putting grammar on the line. Scholars in Normal, Illinois, are taking a small step toward insuring that the English language survives this century. A phone-in "grammar hotline" is in service to handle the syntactic confusion of whoever (whom-ever?) calls in. ■