

# Trends:

## Mathematics

STEPHEN S. WILLOUGHBY

### New Hope for Textbooks

In March 1985 the California State Board of Education approved a *Mathematics Framework for California Public Schools*. This remarkable 95-page document redefines the purposes of mathematics education and spells out criteria for textbook content and design. For example:

Textbooks must be restructured to include all strands and to integrate problem solving, mental arithmetic, estimation, use of calculators, and appropriate reinforcement into each strand. Major concepts from every strand—number, measurement, geometry, patterns and functions, statistics and probability, logic, and algebra—must be incorporated and interwoven throughout the text for each grade level. The new criteria . . . can be met only by texts that foster understanding and the ability to use mathematics (p. 13).

These criteria clearly cannot be satisfied by simply annexing problem-solving sections (however good) or discussions of manipulative materials to a "back-to-basics" or "new math" series. Almost all publishers will need to develop completely new textbooks.

The California State Board of Education is to be commended for this courageous and intellectually sound action. This step is very much in line with all recommendations made by major mathematics and mathematics

education organizations since 1975. But the California *Framework* has teeth. If textbooks don't satisfy the *Framework's* criteria, presumably they will not be adopted in California.

California has the attention of the publishers. The actual performance of the publishers and California's response will go far in determining the quality of textbooks in California and the nation. To write a coherent series of textbooks for grades K-8 based on a set of principles essentially different from previous books requires a long time. To test such materials with teachers and children in real classrooms, to observe what happens in the classrooms, and then to change the many things that do not work the way the authors hoped they would take even longer.

California has already postponed its deadline for submission of books (and therefore for *selection* of books) twice—presumably to give publishers more time to try to meet the *Framework* criteria. When California school districts finally decide which mathematics textbooks to use, publishers will be watching with great interest. Will California adopt texts that were thrown together quickly with all the right words and platitudes but with no evidence of internal consistency or

external verification? Will California accept old "back-to-basics" or "new math" programs that have had problem-solving sections written by a new set of authors and teachers' guides written by still a different set of authors? If so, the *Framework* will have little positive impact on the teaching of mathematics.

If the California State Board of Education has the courage to stick to its guns and adopt only well-conceived and thoroughly tested programs that meet the spirit and the letter of the *Framework*, the effect on mathematics education (and education generally) is likely to be profound. The board showed its courage and commitment to quality with junior high science textbooks. Our expectations are high for California's effect on mathematics education. □

### Reference

*Mathematics Framework for California Public Schools*. Sacramento: California State Board of Education, 1985.

**Stephen S. Willoughby** is past president, National Council of Teachers of Mathematics, Reston, Virginia, and professor, Mathematics and Mathematics Education, New York University, New York, NY 10003.

## Social Studies

WALTER C. PARKER

### New Curriculum Scholarship

A different way of thinking about social studies education may foretell curriculum reforms to come. No mere "swing

of the pendulum" in reaction to the minimum competencies movement, this development actually predates that movement by more than a decade.

And, unlike it, the new scholarship is too disparate to be called a "movement." Drawing from a variety of scholarly traditions, it nearly defies

Copyright © 1986 by the Association for Supervision and Curriculum Development. All rights reserved.