

# Research on Teaching

JANET EATON

## Sex-Affirmative Teaching

Sex-affirmative teachers do not just eliminate sex bias; they purposefully counter the biased expectations of their students and colleagues and promote increased participation by girls and young women in curricular activities. How do they do it? To find out, Susan Melnick and Christopher Wheeler, co-coordinators of Michigan State University's Women's Equity Project, observed two exceptional science teachers, each at different schools, who were highly regarded in their community for sex-affirmative teaching.

While teachers actively recruited girls and brought materials of special interest to girls into their classrooms, Melnick and Wheeler found that teacher-student interactions were at the core of sex-affirmative teaching. Over the period of their observations, the researchers reported, "boys and girls got equal contact from the teachers we studied." Attention, help, criticism, and praise—in short, all teacher-student interactions—were "content-focused and gender-neutral."

These successful teachers did not add the issue of equity to what they already taught; they made it an integral part of the subject matter and their teaching strategies.

Almost all the local parents requested that their children be placed in the classroom of one of the teachers studied, a black woman who taught 7th grade science. Many of her former students,

both male and female, said they took science classes in high school and college because of their experiences in her class.

The other teacher studied, a white man, taught high school physics. In a school with declining enrollment, he increased the number of physics classes taught each year from two to five, and the percentage of female physics students from 25 to 44 percent.

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## Workbooks: To Do or Not To Do

In a 1981 study of 45 teachers, Jana Mason and Jean Osborn of the Center for the Study of Reading at the University of Illinois found that "in most classrooms, students spent as much or more time with their workbooks as they did with their teachers." Says Osborn, "The teachers seemed to regard work in workbooks as an essential component of their reading program."

She has developed a list of 20 guidelines for designing quality workbooks and critiqued workbooks in terms of those guidelines and says teachers can do a great deal to improve the situation. Osborn sees a problem in the findings since "a good proportion of workbook tasks are at best imperfect and not very efficient and at worst misleading and confusing.

"Teachers should not operate from a position of faith in the printed word, but a position of skepticism," says Osborn. They should trust their own judgment and leave out tasks they consider confusing, unimportant, and unproductive.

In addition, teachers should let publishers know when workbooks and workbook tasks are unsatisfactory (and when they're excellent). Says Osborn, "Information from teachers to publishers will affect the quality of workbooks."

For more information, see Osborn, J. "Workbooks that accompany basal reading programs." In G.G. Duffy, L.R. Roehler, and J. Mason, *Comprehension Instruction: Perspectives and Suggestions*. (New York: Longman, Inc.), 1983.

## Learning to Learn

According to the April 1983 report of the National Commission on Excellence in Education, "Instruction in effective study and work skills, which are essential if school and independent time is to be used effectively, should be introduced in the early grades and continued throughout the student's schooling." A solid base of research supports that recommendation.

"Students seldom engage in the cognitive processes educational psychologists consider conducive to learning," said Penelope Peterson of the Wisconsin Center for Education Research after conducting stimulated-recall interviews with 5th graders. She sees great potential for teaching cognitive processes that students can use to better learn from instruction.

Perc Marland of James Cook University in Australia conducted stimulated-recall interviews with 10th- and 11th-graders and agrees with Peterson. He suggests that teachers teach thinking skills to their students.

One thinking skill, for example, is cue seeking. For "cue blind" students, don't recognize cues that indicate which

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material is most important for them to learn (such as verbal emphasis by teacher), skill development in this area would enable them to learn more from instruction.

Teaching thinking skills is critical in the early grades, according to Linda Anderson of the Institute for Research on Teaching at Michigan State University. She talked with 1st-graders about their seatwork and found that several of the low achievers who didn't understand how to do their seatwork had learned to cover their lack of understanding by using such strategies as copying or guessing the answers.

"Seatwork explanations that highlight what the students are learning and why it is useful can contribute to student

understanding," said Anderson. Clear explanations would provide students with strategies for thinking about how to do their work.

#### **State Math Curriculum Policies Vary**

What mathematics should a child know after finishing elementary school? In the United States, the answer depends in part on where you live. Charged by the federal constitution with the responsibility of educating its children, each state sets its own educational policies, which vary considerably in number and strength from state to state.

That's what researchers at the Institute for Research on Teaching (IRT) found after studying the policies of sev-

en states believed to have distinctly different approaches to curriculum policy: California, Florida, Indiana, Michigan, New York, Ohio, and South Carolina.

The researchers described what they refer to as "policy zones of tolerance" for each state. Says researcher John Schwille, "There are areas in which educators are free to exercise their professional discretion and judgment, areas in which they are not free, and some gray areas in between."

Of the seven states studied, Florida provided the narrowest zone of tolerance for teachers. The highly publicized high school graduation exam is but one piece, according to researcher Don Freeman, of Florida's interwoven and comprehensive package of accountability legislation and regulation.

At the other end of the scale is Ohio, where the prevailing philosophy seems to be that education functions best when its management is kept close to the people—specifically, in the hands of local school boards and school administrators.

Individual states, then, are as different from one another in their educational policies as are countries. Those who would call for educational reform must reckon with an incredible diversity.

The National Commission on Excellence in Education said in April, "The curriculum in the crucial eight grades leading to high school years should be specifically designed to provide a sound base for studying in those and later years in such areas as . . . computational and problem solving skills." That statement implies a desire for a fairly standard national curriculum.

Previous IRT research showed that presently there is no standard national mathematics curriculum. The IRT's recent study of state policies shows that states do not even agree on who could or should design such a curriculum. □

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