



Video

FULL DETAILS AND TRANSCRIPT

Encouraging Girls in Math and Science (Part 2)

Diane Halpern, Ph.D. • November 2007

Topic: Encouraging Girls in Math and Science

Highlights

- There are a number of things teachers can do to encourage girls to think seriously about careers in science and math.
- Learning happens outside of the classroom too. A community-wide message is important and helps support teachers in their role. Parents can also help reinforce the message that girls belong in the math and science fields.
- School leadership makes a difference. Having principals, superintendents, boards of education, and parent groups on board sends a message to students that this is a priority.

About the Interviewee

Diane F. Halpern is Professor of Psychology at Claremont McKenna College. She has won many awards for her teaching and research, including the 2002 Outstanding Professor Award from the Western Psychological Association, the 1999 American Psychological Foundation Award for Distinguished Teaching, 1996 Distinguished Career Award for Contributions to Education given by the American Psychological Association, the

California State University's State-Wide Outstanding Professor Award, the Outstanding Alumna Award from the University of Cincinnati, the Silver Medal Award from the Council for the Advancement and Support of Education, the Wang Family Excellence Award, and the G. Stanley Hall Lecture Award from the American Psychological Association. Diane was president of the American Psychological Association in 2004.

Diane is the author of several books: *Thought and Knowledge: An Introduction to Critical Thinking* (4th ed., 2003), *Thinking Critically About Critical Thinking* (with Heidi Riggio, 2003), *Sex Differences in Cognitive Abilities* (3rd ed., 2000), *Enhancing Thinking Skills in the Sciences and Mathematics* (1992), *Changing College Classrooms* (1994), *Student Outcomes Assessment* (1987), and *States of Mind: American and Post-Soviet Perspectives on Contemporary Issues in Psychology* (co-edited with Alexander Voiskounsky). Her most recent book is coauthored with Fanny Cheung at Chinese University, entitled *Women at the Top: Powerful Leaders Tell Us How to Combine Work and Family* (Wiley/Blackwell Publishers, 2008). This book is based on interviews with 62 women who made it to the top of their profession with children and other family responsibilities. It combines practical advice from these highly successful women with the research literature on work and family.

Full Transcript

The panel was hoping that our main message will get across. And that is that there are a number of things teachers can do to encourage girls to really think seriously about careers in science and math. Sometimes we're asked how will these recommendations work in mixed-sex classrooms, since in fact, we talk about encouraging girls to go into math and science. These are generally good practices that will also benefit boys. As it turns out, girls and boys do have—the same learning principles will work. The reason it will be more valuable for girls is that we have fewer girl role models out there. But, in fact, these will be helpful for everyone.

And it's helpful for the boys to also see the women role models because it also conveys to everybody that science is something we all do—boys do it, girls do it—and that there are marvelous mathematicians and scientists who are women and men. We want to be careful that we're also educating our boys for the future—one where there's going to be much more participation of women in the workforce. They're already close to 50 percent of the U.S. workforce and the workforce in most global economies.

One thing we find when you look at any educational recommendation is support from the administration—from the principal, from the superintendent, from the board of education—that's critical. When they send a message to teachers, when they support those teachers who have their own initiatives and their own ideas,

I mean, that really makes a big difference. We know that there are high performing schools and very similar schools that don't perform as well. Leadership is important and having our principals, our superintendents, our boards of education, concerned parent groups all participate in these will really make the job easier for teachers and really send a broader message to students that this is something we care about and that, in fact, we reinforce at home, we reinforce in the broader community, we put on district-wide events. And that sends a great message.

Learning happens lots of places. I'd like the local library, for example, to put on a "women in science" display or have local scientist come in and talk. We'd like parents to be sure that all of their kids are doing—going to the science museum, that all their kids are going to science camp, that, you know, have a chance to really engage in great activities. That they're helping in the classroom with the teachers who may need extra time for setting up for some of these more investigative activities instead of just handing out a worksheet. That's more work for teachers. Good teaching is hard work, and any support they can have with it is going to carry it just so much further. And these messages get reinforced. Those implicit messages that science and math are for boys and men—we really want to start breaking them down. And the only way we do that is by having a more community-wide message—in the media, in the materials, in the books that we select for our children, in lots and lots of places. So there's a role for everybody, and it's an important role.

I think what's important for teachers, for parents, for principals, for superintendents who are looking at our recommendations to know is that there's a lot they can do and that it's important. It's important because we're developing the fullest talent possible from all of our students and that we're helping girls particularly enter areas where they've not been there in large numbers. And that that will make a difference in our competitiveness, our ability to cooperate in a global world, prepare for our workforce, and really move us forward.