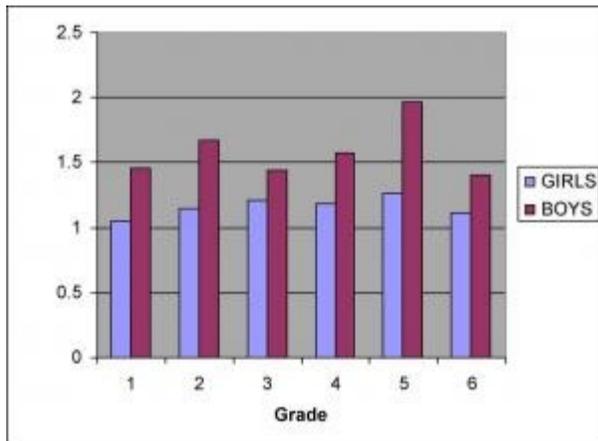


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How Dads Influence Their Daughters' Interest In Math

Science Daily — It figures: Dads have a major impact on the degree of interest their daughters develop in math. That's one of the findings of a long-term University of Michigan study that has traced the sources of the continuing gender gap in math and science performance.



Number of math and science items purchased for boys and girls by parents (Credit: University of Michigan Institute for Social Research, 2007)

"We've known for a while now that females do as well as males on tests that measure ability in math and science," said Pamela Davis-Kean, a psychologist at the U-M Institute for Social Research (ISR). "But women are still underrepresented in science, technology, engineering and math graduate programs and in careers based on those disciplines."

It's as if women are saying, "I can, but I don't want to," according to Davis-Kean.

In a study she presented recently at a campus meeting, Davis-Kean and colleagues analyzed how parents' values and attitudes affect children's math performance and later interest, and how these attitudes vary by the child's gender. They used data from a longitudinal study of more than 800 children and a large group of their parents that began in 1987 and continued through 2000.

They found that parents provided more math-supportive environments for their sons than for their daughters, including buying more math and science toys for the boys. They also spent more time on math and science activities with their sons than with their daughters.

Davis-Kean and colleagues, including the late Janis Jacobs of Pennsylvania State University, Martha Bleeker of Mathematica Policy Research, Inc., and U-M psychologists Jacquelynne Eccles and Oksana Malanchuk, also found that parents' attitudes, particularly stereotypes they hold about whether math and science are more important for boys than for girls, have a significant effect on their children's later math achievement, and even on their eventual career choices.

They found that girls' interest in math decreases as their fathers' gender stereotypes increase, whereas

boys' interest in math increases as their fathers' gender stereotypes increase.

"Fathers' gender stereotypes are very important in supporting—or in undermining—daughters' choices to pursue training in math and science," Davis-Kean said.

Davis-Kean discussed these findings at "Educating a STEM Workforce: New Strategies for U-M and the State of Michigan," a one-day conference held May 21 on the U-M campus. This research was funded by a National Science Foundation grant on Women, Minorities and Information Technology.

Note: This story has been adapted from a news release issued by University Of Michigan.