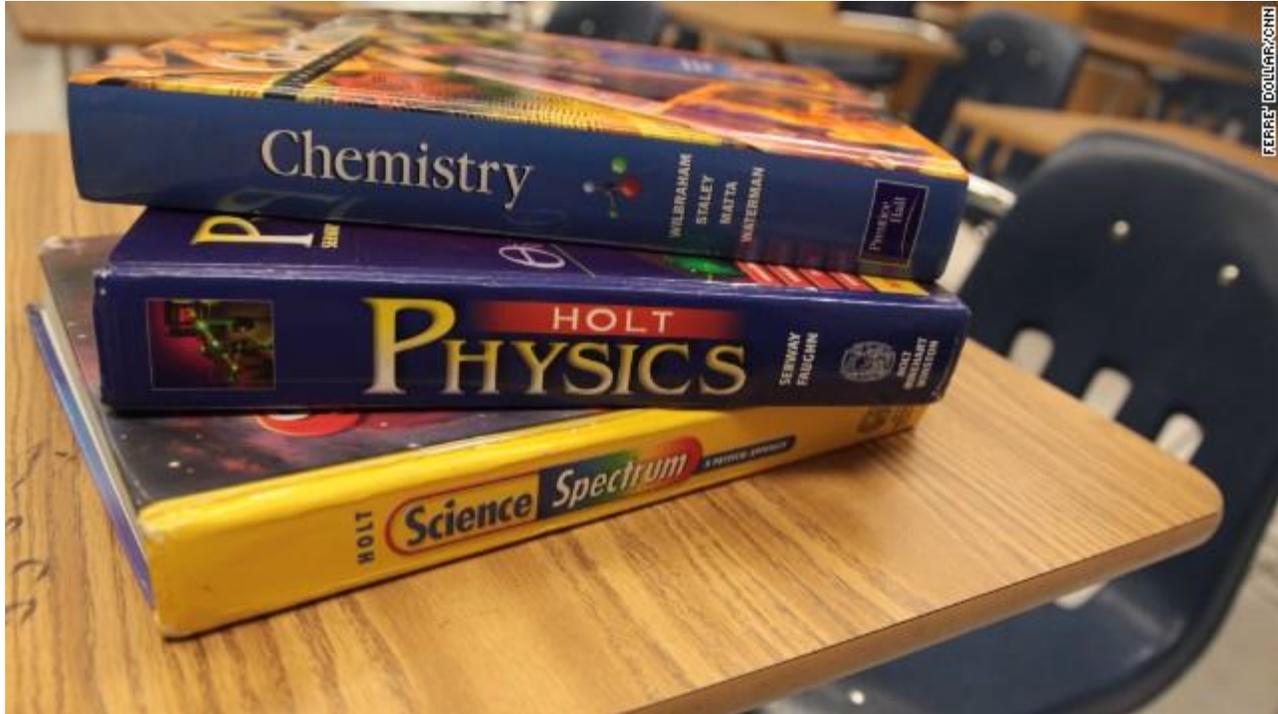


schools OF thought



A new study showed a simple intervention with parents led high schoolers to take more math and science classes.

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Want more kids to take calculus? Convince mom first

By **Jamie Gumbrecht**, CNN

(CNN) - Math and science educators across the country spend their summers learning how to make calculus more engaging and biology more relevant, but there's a problem: What if high schoolers never even signed up for those classes?

What if a tough ninth grade algebra class meant they hopped off the high-tech train, and couldn't find a way back on later? What if nobody answered when kids asked, "But I'm not going to be a chemist - why do I need this?"

For all the reasons teens find to stop taking math, science and technology classes, a study published online in the journal "Psychological Science" found a relatively simple way to make them continue: Convince their parents first.

The study, "[Helping Parents to Motivate Adolescents in Mathematics and Science: An Experimental Test of a Utility-Value Intervention](#)," showed a simple

intervention with parents led students to take, on average, one additional semester of math and science in their last two years of high school.

"These are the critical years in which mathematics and science courses are elective, and our results indicate that parents can become more influential in their children's academic choices if given the proper support," the study says.

How simple was that support? Just a couple of brochures, a web site and a little guidance about how to use the information.

Researchers from the University of Wisconsin-Madison and James Madison University mailed parents of 10th graders a glossy, 16-page, photo-filled booklet touting math and science education. The brochures offered up talking points to parents about how to discuss science and math classes with their kids, and examples of how those subjects might be relevant to their lives now or when they're considering careers. If parents were convinced of the value of science and math for their kids, researchers thought moms and dads could convey that utility value to teens.

They followed up with another brochure while the kids were in 11th grade and included links to a website that offered more detailed information about science and tech careers. To assure parents paid attention, they asked parents to evaluate the website. A control group of parents and kids received none of the information.

Researchers thought they might see an increase in conversations between parents and kids about math and science. They didn't expect how much parents used the guidance - or how much of an impact they could have on their kids' class choices. Seventy-five percent of kids said they'd seen the brochures or the website sent to their parents.

"I think we underestimated how much parents would welcome this kind of help," said **Judith Harackiewicz**, a University of Wisconsin-Madison psychology professor and author of the study. "To encourage your kids to do something you didn't do is particularly challenging. Even parents who, themselves, went far in education still don't appreciate what their kids need to know today and might not have a good enough understanding of it."

Parents' reactions were different: Some said it was nothing new - they were already hearing it from their kids' schools and talking about it at home. Some just left the brochures where kids could find them. Some parents and kids went over the website together.

"I think the real potential is for families with fewer resources. It helped everybody because it was more tailored to parents than the stuff that usually comes home," Harackiewicz said.

"It could have worked differently in each family, but it worked."

Turns out it worked especially well with mothers. Moms were more likely to open the mail, read the brochures and talk about it with their kids, Harackiewicz said,

especially because the sample included several families where kids lived with moms and without dads.

Fathers responded well to the website, Harackiewicz said, and when they got involved, they had a big impact - especially on their daughters.

There are some limitations to the study. All the families involved have participated in the longitudinal **Wisconsin Study of Families and Work** since the early 1990s, so the mailings came from a known source - not from companies selling flash cards or even school leaders putting notes in kids backpacks. The 181-family sample is a good representation of the racial, ethnic, socioeconomic and educational diversity in Wisconsin, but not representative of the United States' racial and ethnic makeup.

So there's plenty more to learn, perhaps studying kids and parents in earlier grades. Harackiewicz said they're seeking partner schools that might reveal how more diverse students and families respond.

But, any school could try it.

"I think this could be easily implemented," Harackiewicz said. "It shouldn't be junk mail. If I, as a parent, got something from the principal of the school my kids were in, I would think, 'I need to look at this.'

"We gave parents something they could use. It wasn't too much, we just planted a seed. One conversation might have made a difference."

Posted by **Jamie Gumbrecht** -- CNN

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