


To keep girls in science and math, we have to change a hostile culture

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In this era of #MeToo and female empowerment, we need to do more to remove the gender gap associated with our girls and women pursuing careers in science, technology, engineering and math. There probably isn't a day that passes when you don't hear the term STEM in the news, in a conversation or from the mouths of parents who are trying to find "the angle" to get their child a scholarship or a job. The disappointing reality is that while many girls are strong at math and science in their middle school years, they are far more likely to opt out of higher level math classes while their male counterparts stay in.

What this tells me is that it is time for us to redefine STEM. It is time for us to talk about creating a climate where we foster innovation, creating a more welcoming environment for our girls to thrive in school from the elementary level through college and graduate school. Too often, our girls are not encouraged or mentored to pursue careers in STEM. This has to change. The numbers are discouraging. Recent reports show that only 27 percent of the students taking the AP Computer Science exam are women. And while the number of female computer science majors is increasing, we make up only 22 percent of the majors.

The only way we can create a culture of innovation is to increase the number of opportunities, to allow girls to stretch and expand their minds without limits. We have to create experiences in our schools and at home where we encourage, embrace and inspire girls to try something new and to stay with it. We know when we expose our girls to math and science at an earlier age, we increase the probability that they will become innovators.

Too often, girls are deciding for themselves not to join the science club or robotics team. This is a basic equity issue. If girls don't see themselves as successful participants in math and science, then they don't see how any STEM studies relate to them. Let's create a wider range of activities that integrate science, technology, engineering, the arts and math (STEAM) that provide educationally enriching experiences for girls who may not be interested in robotics or science competitions.

Also, let's celebrate more female role models in the classroom, in textbooks and in the community. That will create a greater sense of belonging for girls in the sciences.

Throughout students' academic career, they tend to choose subjects that favor their academic strengths. That's where teachers and parents then focus their energies. The data show males are more likely to pursue math and science because societal norms have established that as the natural career interest. But the reality is that if more females are encouraged, supported and mentored to develop their math and science literacy, the more likely they are to pursue it.

We must provide parents and schools the tools to support girls to embrace math and science. We have to make math approachable for them. Math happens everywhere — at home, in our neighborhood, in our communities, at parks, at football or basketball games. A national ad campaign is one step. The Girl Scouts' recent partnership with Raytheon is another step in the right direction. I've also created a program, talkSTEM, where we partner with local schools, universities and museums to get more girls — and kids in general — to see that math can be fun.

Engaging girls in science and math is crucial for their future success. Leadership in corporate America requires STEM-related skills and the ability to analyze big data. If only 10 percent of C-suite executives are women, then that tells me we're missing opportunities to solve communal and global problems because we're excluding almost 50 percent of the population. It just makes sense that if we get more women pursuing math and science-related fields, then they can climb up the corporate ladder and lead.

That brings me right to heart of the #MeToo movement. Women in the math and sciences experience sexual harassment at all levels. If you talk to many female math, science or engineering students, particularly at universities around the world, you'll hear how many have had to withstand verbal and sometimes physical abuse from their male counterparts who ridicule them for not being "smart enough." In other cases, women say that they don't report instances of sexual assault because they fear they might lose their grant funding or get passed over for other projects.

This is heartbreaking and only compounds the structural problems with keeping girls in STEM at a younger age. At every stage and every age, we've got to empower, encourage and nurture our young girls to learn to love the math, science and the arts. And we've got to change a culture that is still too bent against their success in their crucial fields.

To fail is to cheat not only our young women but also our entire society. To succeed is to open a world of possibility that can benefit us all.

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