DOINGWHATWORKS

Video
FULL DETAILS AND TRANSCRIPT

Instilling Confidence

Hillcrest High School, Texas • November 2007

Topic: Encouraging Girls in Math and Science
Practice: Ability is Expandable

Highlights

- Hillcrest High School has doubled the number of students taking Physics in the last six years and increased heterogeneity.
- To encourage girls, teachers should be careful to start by giving them confidence in their ability to do the work of the class.
- Teachers must also be honest with themselves about biases they bring to the table regarding gender stereotypes and must address these before focusing on the students.

About the Site

Hillcrest High School
Dallas, TX

Demographics
53% Hispanic, 29% Black
59% Low-SES
33% Limited English Proficient
52% Females

Hillcrest High School, an urban school that serves a primarily ethnic minority population, has been recognized for its efforts to promote students' enrollment in Advanced Placement (AP) courses. For example, this school ranked in the top 5% of high schools in the country, according to Time Magazine, for AP exams proctored. They encourage girls by:

- Active recruitment of girls to AP classes
- AP Physics teacher trained by the Center for Gender Equity
- Technology grants pursued to enrich school labs
- Encouragement of hands-on scientific inquiry in the classroom

Full Transcript

My name is Kimberly Robinson, and I am the Associate Principal of Teaching and Learning at Hillcrest High School. Six years ago, when I first came to the school, there was only one teacher of Physics, Daniel Brown. He had a couple of sections of regular ed Physics, one section of pre-AP and one section of AP Physics with about three or four kids in it. And we've just undergone just a metamorphosis in that area.

We have one and a half teachers now. Classes are quite full. We have three pre-AP sections and one AP section with about sixteen to eighteen kids. And then about five sections of regular. So that's what—that's 100 percent more kids, probably more than that if we were to just really do a pure average. And very heterogeneous classes with regard to gender and ethnicity. So in both of those areas, I think, we've made a lot of gains with the students feeling like, "This is a course I can take and be accepted and be expected to learn—and learn."

The first thing that teachers need to do to encourage young ladies to get into the sciences and math is to be very deliberate in how they introduce their course to the young ladies. There's a lot of different dynamics that are going on with the students in your class, and one is that this is sometimes very intimidating to females—more intimidating than males—just because of historical issues or experiences that the females don't come to the class with. And for that reason, the teacher has to be very deliberate about the activities they engage in initially. And what they're going to have to be deliberate about is this: making sure that the students get an opportunity to gain some confidence in their ability to do the work of the class. Because, if they can get the students there, they're ready to be taught. And they have to overcome that intimidation, often times, that this is something new for them. They have to overcome that before the kids are ready, mentally, to be taught.

As a Chemistry teacher, what I noted is that my kids would come in sometimes very ready to do the course but not with a confidence they needed to be successful. So I had to engage in very deliberate actions to get them confident enough for me to teach them. Because kids, irrespective of what we say, they're very perceptive. And because they're human, they like to know that their teacher believes they can do the work. And if the teacher will set the limit, they're going to come up to that. Irrespective of what that is, they're going to. So just be encouraging, let them believe that—let them know that you believe they can do the

work and give them an opportunity for success initially so that they're ready to learn.

You're going to have to start with recognizing—being just very honest with yourself, and recognizing if you come to the table with a bias, you know. And I had to deal with myself with regard to that because I thought – I think that I had a natural,I guess, proclivity to think that a male student is going to do better. And I'm a female, and I thought that. So I had to deal with some issues that I had and challenge them and refine them so that I could deal with every student as an equal individual and give them what they need to make it in my class. So that when—I could speak honestly and say, "You can do this work."

This message has got to get to the elementary and middle school teachers. I mean, it has to—that if you do nothing else, show the kids that you believe they can do the work, irrespective of their gender or what they look like when they come in the classroom. Just demonstrate that, that one thing. That one thing. And then they come to class ready to learn.