

## Growth Mindset Thinkers

Video: Developing a Mathematical Growth Mindset

(ALAN SCHOENFELD:) We use the phrase "growth mindset," which is exactly the right one to use. Carol Dweck is absolutely right about that. And growth mindset is really predicated on two thoughts; one is the understanding that colloquially, the brain is a muscle, if you exercise it, it gets stronger. And that's a real issue, at least in American culture, I suspect in most of Western culture, that people tend to think that mathematical ability is innate. And if you do, then you decide either I'm a math person or I'm not a math person, and game over. The reality is that ability at mathematics, like ability at almost anything else, is something that can be developed through hard work.

So that's the first thing. You have to understand that if you work at it, if you decide to put in the effort, that you can get much better at any intellectual task, at almost anything. The second thing is arranging the opportunities to do that, because what you need is a legitimate opportunity to begin stretching your mathematical muscles. And as you stretch them, both to reflect on that and note your own growing skills, and to be stretched further, because getting better is a lifelong process. That's what a growth mindset is all about. It's not I can/I can't think about mathematics, it's I'm getting better at doing this stuff.

And if you think about the kinds of things I talked about for a classroom, where there are low-floor, high-ceiling tasks; you start with tasks where kids can do legitimate sense-making, problems are proposed in such a way that you can start by making sense of the context and mathematizing, and taking your first steps. You're giving opportunities to talk about the mathematics to explain the ways you're thinking, and those ways are built upon. And then, those ways that are built upon are connected to more advanced mathematics, and as you're doing so, you're making sense of stuff that you haven't made sense of before.

Well, you've now got the grist for growth mindset, you've got the attitude that what I do can make a difference, and you're beginning to get empirical evidence that you can.