The power of believing that you can improve | Carol Dweck

The power of yet. I heard about a high school in Chicago where students have to pass a certain number of courses to graduate and if they didn't pass the course they got the grade not yet. And I thought that was fantastic because if you get a failing rate you think I'm nothing I'm nowhere but if you get the grade not yet you understand that you're on a learning curve. It gives you a path into the future. Not yet also gave me insight into a critical event early in my career a real turning point. I wanted to see how children coped with challenge and difficulty. So I gave 10 year olds problems that were slightly too hard for them. Some of them reacted in a shockingly positive way. They said things like I love a challenge or you know I was hoping this would be informative. They understood that their abilities could be developed.

They had what I call of growth mindset but other students felt it was tragic catastrophic. From there more fixed mindset perspective their intelligence had been up for judgment and they failed. Instead of luxurious meeting in the power of yet they were griped in the tyranny of now.

So what do they do next? I'll tell you what they do next. In one study they told us they would probably chief the next time instead of studying more if they fail the test in another study after a failure. They looked for someone who did worse than they did so they could feel really good about themselves. And then study after study they have run from difficulty. Scientists measured the electrical activity from the brain as students confronted an error. Unless you see the fixed mindset students there's hardly any activity they run from the error. They don't engage with it. But on the right you have the students with the growth mindset. The idea that abilities can be developed they engaged deeply their brain is on fire with yet. They engaged deeply. They process the error they learn from it and they correct it. How are we raising our children? Are we raising them for now instead of yet? Are we raising kids who are obsessed with getting a.'s raising kids who don't know how to dream big dreams? Their biggest goal is getting the next a or the next test score. And are they carrying this need for constant validation with them into their future lives? Maybe because employers are coming to me and saying we have already raised a generation of young workers who can't get through the day without an award. So what can we do? How can we build that bridge to yet? Here are some things we can do. First of all we can praise wisely not praising intelligence or talent that has failed don't do that anymore. But praising the process that kids engage in their effort their strategies they're focused their perseverance their improvement. This process praise creates kids who are hardy and Brazilian. There are other ways to reward yet. We recently teamed up with games scientists from the university of Washington to create a new online math game that rewarded yet in this game students were rewarded for effort strategy and progress. The usual math game rewards you for getting answers right right now but this game rewarded process and we got more effort. More strategies. More engagement over longer periods of time and more perseverance when they hit really really hard problems. Just the words yet or not yet we're finding give kids greater confidence give them a path into the future that creates greater persistence and we can actually change students mindsets. In one study we taught them that every time they push out of their comfort zone to learn something new and difficult. The neurons in their brain can form new stronger connections and over time they can get smarter. Look what happened in this study students who were not taught this growth mindset continued to show declining grades over this difficult school transition. But those who were taught this lesson showed a sharp rebound in their grades. We have showing this now this kind of improvement with thousands and thousands of kids especially struggling students. So let's talk about equality in our country. There are groups of students who chronically under perform for example children in inner cities or children on native American reservations and they've done so poorly for so long. That many people think it is inevitable. But when educators create growth mindset classrooms steeped in yet equality happens. And here are just a few examples in one year a kindergarten class in Harlem New York scored in the 95th percentile on the national achievement test. Many of those kids could not hold a pencil when they arrived at school in one year. 4th grade students in the South Bronx way behind became the number 1 4th grade class in the state of New York on the state math test. In a year to a year
and a half

native American students in a school on a reservation went from the bottom of their district to the top. And that district included affluent sections of Seattle. So the native kids out did the Microsoft kids. This happened because the meaning of effort and difficulty were transformed before effort and difficulty made them feel dumb made them feel like giving up but now effort and difficulty that's when they're neurons are making new connections stronger connections. That's when they're getting smarter. I received a letter recently from a thirteen year old boy.

He said dear professor dwek. I appreciate that you're writing is based on solid scientific research. And that's why I decided to put it into practice. I put more effort into my schoolwork in tomorrow relationship with my family and into my relationship with kids at school. And I experienced great improvement in all of those areas. I now realize I've wasted most of my life. Let's not waste any more lives because once we know that abilities are capable of such growth it becomes a basic human right.

for children all children to live in places that create that growth to live in places filled with yet. Thank you.