

DOINGWHATWORKS



Audio

FULL DETAILS AND TRANSCRIPT

Helping Students Learn From Mistakes

Green Valley Elementary School, Pennsylvania • December 2007

Topic: Encouraging Girls in Math and Science

Practice: Ability is Expandable

Highlights

- Mistakes are not mistakes—they are just necessary steps in the learning process. This attitude helps students let go of fear.
- Learning to have a “growth” mindset about intelligence—believing that effort increases intelligence—helps students view their mistakes differently.
- Teachers in Green Valley Elementary School started focusing on teaching a growth mindset (and rewarding mistakes), and big changes started being visible in students two to four months into the school year: students became more willing to volunteer answers and see mistakes as a learning opportunity.

About the Site

Green Valley Elementary School

Sinking Spring, PA

Demographics

K-6

87% white

6% Hispanic

4% African-American

7% free and reduced-price lunch

47% female students

Predominantly low to middle socio-economic status

Located in Berks County, PA, Green Valley Elementary serves predominantly white students from low to middle socio-economic background.

- This new school opened in 2006 and since then has invested in a variety of professional development activities to increase teachers' awareness of the principles of effective learning.
- Since 2006 the school has been implementing a schoolwide approach that encourages teachers to communicate to students that there are no math, science or reading genes, the brain can grow, and the way to achieve progress and better abilities is through effort.

Full Transcript

My name is Deborah Kerschner. I teach at teach at Green Valley Elementary School, which is part of the Wilson School District in Sinking Spring, Pennsylvania. I teach the 6th grade math and language arts. In the classroom we talk a lot about how mistakes are not mistakes. That they are just steps in the learning process, and that we need to be making mistakes in order to truly learn. I think that helps the kids to let go of that fear that they have to be right the first time always, and I'm constantly reminding them that effort increases intelligence, and that people become smarter. They're not born smart, and the ways that we get smarter are through pushing back in lessons, and asking questions, and challenging, and asking for clarification when they need it.

To increase teacher awareness, actually, last summer our principle had purchased a copy of Mindset for every teacher in our building, and we were asked to read it as a summary, and we did that. So during professional development days we will often have discussions based on using evidence from the book Mindset to support our discussions, and to answer questions about how to help kids get smarter, and how kids best learn. And also, last year when we got the copy of the article that "You Can Grow Your Intelligence," I shared it with the rest of the teachers in the school who also then shared it with their students. But as teachers we're constantly reminding each other about the growth mindset, and last year we made actually—well our school is Green Valley, so we made green construction paper brains, and all the teachers would wear them around the buildings, and then the kids would start to wear them. And we have posters that the kids made and teachers made talking about how effort increases intelligence, and how you

can get smarter through hard work and effort. It's really a daily reminder to each other that we need to keep conveying this message to the kids.

After learning about growth mindset the students definitely, definitely viewed making mistakes a lot differently. They are much more willing to share strategies and be wrong, and they're okay with being wrong, and making mistakes. I'm constantly rewarding people for making mistakes, because it means their trying different strategies. And in her book, Dr. Dweck mentions that she said to a student "If you're not making mistakes I apologize, because then the work is just too easy, I have to make it harder for you, and challenging. So that you can be learning." And I share that with the kids; that unless you are making mistakes, you are not learning. You are just reworking what you already knew, and that's not learning. Learning is pushing yourself beyond. And I'd say, just starting a couple of months into the year after hearing this day in and day out, I have so many more kids volunteering answers and volunteering to challenge someone else's thinking. And they'll often say "can I come up to the board, and show you?" which is great, and they know—mistakes are ok, so feel free to share, and if you make a mistake that's great go get something from the prize box, because we're all learning something now.

Depending on the mindset of the student when you get them, it definitely takes kids a different amount of time to kind of integrate this way of thinking into their own thinking. I would say probably anywhere from two to four months into the school year is when I start seeing big changes. That's what happened last year, and I'm starting to see some massive changes now. Just in the willingness of the kids to—like I said before—to challenge, to come up to the board and show strategies, to ask questions about what is happening rather than just sit there and not say anything. I have two examples from last year that really stand out.

One is a boy who in the beginning of the year, actually, came up to me, and I could see he felt really uncomfortable being in math class, and he was kind of like drawn into himself. He would actually sit on his hands during class, and he said to me "I don't like math, I'm not good at math, and I really don't like being in math class, and I really don't want you to ever call on me." And I said, "Okay, and we will work on that during the year. In here..." and I kind of went into the whole speech about, in here it's okay to make mistakes, and I expect people to make mistakes. That's how we're learning. It was about two and a half months into the year, and I saw him start raising his hand, and he was definitely more active in class, and listening to other peoples strategies, and coming up to the board, and challenging. Constantly challenging, saying to kids "I don't understand how you got that, can you explain that a different way?" In third quarter he actually joined my math challenge club, which was held after school on a voluntary basis, and we worked with concepts that they don't deal with normally in 6th grade. These were 7th, 8th and some 9th grade concepts, and he was there by choice, pushing and working hard. So his whole mindset about math had definitely changed. He was much more growth mindset at the end of the year, and he did come up and say, "I like math, I really like it," which I thought was fabulous.

Another case was actually a 5th grader, and the teacher knew that I was— I was constantly caring around

my Mindset book, and talking to kids about it or referring to it, so she said she was really struggling with this one student in her class who was just very down on herself and said, you know, she's so slow at reading, and so slow at writing, and she can't do this, and she can't do that. And the teacher felt just like maybe she should just hear another person's input. So I shared the book with her. At the end of each day she would come to me, and I would share something from the book with her, and then I would ask her how she could use what I shared the next day, to help herself. And then the end of the next day she would come back, and she would share with me how she had used that part of the book to help her, and I would give her another section and share it with her and, by the end of the year, she had changed her thinking. She said "I am slower, but that's okay, and I'm working very hard," and what was incredible was on the PSSA's her 4th grade score had her at basic, and her 5th grade score she was in the advanced category. And we couldn't really attribute anything to any kind of—you know we did work very hard in school, but I think it takes the kids to change their mindset about themselves before any true learning can occur, and I think that's what showed with those two kids.