

What is your Mathematical Superpower?

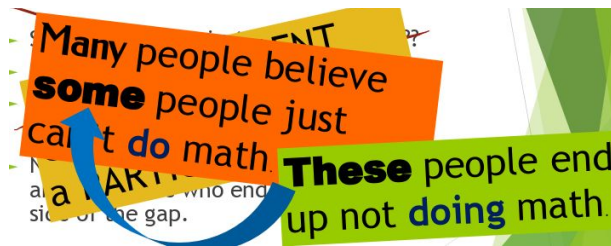
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On October 24th, teachers, administrators, and math coaches from across the state gathered together at MDE to learn from Marcy Wood, one of the authors of the book, *Smarter Together! Collaboration and Equity in the Elementary Classroom*. The day was spent thinking deeply about participation, status, and learning in groups.

Participation

The first activity we did was think about participation issues we have in our classrooms. Marcy then posed this question: How is the achievement gap a participation gap?



Thus, if we want students to learn then we have to get them doing math. In order to get students doing the math we need to address status issues that arise in our classrooms. A person's status is largely based on perceptions of competence. Perceptions should be based on relevant skills a person has for the job or work being done, but many times perceptions are based on irrelevant information. Our job as teachers is to find ways to leverage a student's status in the classroom. Higher status and lower status students can both be problems in our classroom. Ideally we want to equalize the participation - if we think about status in terms of participation - then higher status can be students who over-participate and lower status are typically students who under-participate. The student who has most access to learning is the student who is over-participating, we don't know the thinking of others because they don't get their thinking on the floor.

What does it mean to be smart in mathematics? Who is smart in mathematics? Take this analogy -- What if Olympic athlete only meant 100 meter sprinter? Who would we be missing? Simone Biles, Jessie Diggins, and Matthias Steiner

Math Content



What if Olympic Athlete only meant 100 meter sprinter?

Major Problem in Mathematics Education

Some students are not learning math...

In your classroom

Across the world, marginalized, nondominant students

Why?

Some people are just better at math??

Some people are math people??

Some people got the math gene??

THE ACHIEVEMENT GAP IS IN LARGE PART A PARTICIPATION GAP

would not be olympians. But, the Olympics celebrate multiple talents and so should our math classrooms and lessons. Marcy states, “the more ways there are to be smart in your class, the more students who can be smart in your class.”



So, then let's form the Justice League of superheroes in each of our math classrooms by helping each student find and use their superhero math powers. One idea to do this was to use the ABC chart. Display this in the room and make it public. Students will turn to others because they know it is that person's superpower. Doing this also gives students ownership over doing something because they know it is their

ABC MATHEMATICAL SUPERHEROES!!				
A	B	C	D	E
F	G	H	I	J
K	L	M	N	O
P	Q	R	S	T
U	V	W	X,Y	Z

superpower. In order to shift the participation for the UNDERparticipators - we need to make it public for students of what they are good at. We need to assign them competence, it needs to be specific, and it needs to be academic. Doing this is the #1 Magic Bullet for shifting participation. For our OVERparticipators - we can tell them what they are good at and then say, “for today I want you to try...” this is a specific thing I want them to work on -- we do this in private with the student - this can help shift to productive participation. Our OVERparticipators can't make this shift until we help them know how to be more productive.

How do you do this in your classroom? What other ideas are out there for assigning competence to students? Please share your answers with mctm by posting in our closed Facebook group or by tagging us on twitter @mctm_mn. We are all better together when we learn from each other.