

# The Community of Mathematics Teachers

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# Why a community of all math teachers?

The time is right for *all of us who teach math* to join together to become community:

- Math teaching is connected across all levels;  
Suzanne Wilson: we all own this problem!
- we have the Common Core in common  
Bill McCallum: common standards are the glue for a network;
- *all of us* have much to learn from each other about both math and math teaching.

# We have a common problem in math teaching

- The current system is not fostering excellence in math teaching *at any level*;
- math teaching is not regarded as a top-notch profession *at any level*;
- math teaching is not vigorous and vibrant the way some other mathematical professions are, such as math research.

# How can math teaching become a vigorous, vibrant profession?

What makes math research so strong and productive?

- **Public, shared knowledge**

Math researchers publish their work, they discuss their work in depth, they build on each other's work;

Suzanne Wilson: "Professions make a commitment to storing and vetting knowledge."

- **A reward structure of *peer approval***

Quality is judged from *within* the community by peer recognition and admiration;

the community is a meritocracy that is led by and learns from the top professionals in the field.

- **A high bar to entry**

Entry into the community requires a high level of education and accomplishment.

# Research on motivation and development of expertise

Internal motivation is fostered by environments that fulfill the basic human needs for

- autonomy
- competence
- relatedness

as opposed to environments that are externally controlling.

***External measures of accountability cannot work in the long term because they will sap motivation.*** External reward structures are not as motivating as peer approval.

Development of expertise requires *deliberate practice* over many years.

# From an unsolvable problem to an inevitable solution? (Bob Moses)

All of us who teach math:

- Let's see ourselves as a *professional* community;  
let's take collective responsibility for math teaching at all levels;  
let's demand that *we* decide what qualifies as appropriate  
professional education and development;  
let's demand high standards for entry into *our* community.

# From an unsolvable problem to an inevitable solution? (Bob Moses)

All of us who teach math:

- Let's develop repositories of shared, vetted knowledge about math and its teaching;  
let's compete for each other's admiration through the sharing of ideas;  
let's develop system that allows knowledge about math and its teaching to build and evolve;

# From an unsolvable problem to an inevitable solution? (Bob Moses)

All of us who teach math:

- Let's negotiate and promote excellence in math teaching *from within our community*, not by external accountability measures; let's not allow summative assessments to drive teaching — lofty visions about learning and understanding should guide us!

Let's join together and let's advocate collectively to make math teaching strong!