

The Faces of Math Talks

Examining perspectives of mathematical discussions

Facilitators: Rachel Restani & Leslie Banes
Session 4: 10:00am - 11:20am Sunday January 20,
2013 Room 325

Goals

- To collaborate with other teachers about strategies to engage students in meaningful class discussions.
- Develop understanding of how mathematical learning is mediated through our identities, beliefs and classroom environment.
- Encourage students, teachers and parents to accept effort, risk-taking and making mistakes as values that support the discussion of mathematical concepts.
- To create a contact and resource list of teachers, parents and students who are interested in continuing to share thoughts and ideas.

Activities

- Adaptive School norms
- Each Teach and Paired Square - Bishop and Boaler
- What is your math identity (Mathography)?
- Group reading summary and poster presentations
- Individual reflection

7 Norms of Collaboration

- With a partner, decide who will be partner A and who will be partner B.
- Both partners silently read the first norm.
- After both partners are finished reading, partner A will paraphrase the norm. Partner B will then give an example of a time when the norm was used or an example of what happened when the norm wasn't used.
- Switch roles and repeat with the next norm.
- Continue until you've covered all 7 norms.
- Be prepared to share with the larger group an application of a norm or how it might benefit collaboration.

The Norms of Collaboration

1. Pausing
2. Paraphrasing
3. Posing Questions
4. Putting Ideas on the Table
5. Providing Data
6. Paying Attention to Self and Others
7. Presuming Positive Intentions

Each Teach and Paired Square

Each Teach

- Form pairs
- One person in the pair will read Bishop– the other person will read Boaler.
- After reading, each partner teaches the essential points to the other partner using the visual organizer (Ways of Talking).

Pair Squared

- Once you have completed the above – join up with another pair (Pair Squared) and share what you are learning and understanding

Ways of Talking

- What – increase our understanding of the relationship between discourse and identity in the context of math classrooms.
- Why – so we understand the relationship between discourse and identity. How we say things and how we listen are important in how we learn - about ourselves and about mathematics.
- How – by reading about the research done by Bishop and Boaler and by using Each Teach and Paired Square

Mathographies

- Write your mathography at the top of the paper.
- Pass to next person so that he/she can write a reaction/response.
- Then pass again so that another person can comment/argue.

Group reading summary and poster presentations

- Split into 3 groups:
- #1 Read Moschkovitch (1999), #2 read Martin et al. (2012), #3 Cobb (2009)
- Discuss what the teacher did to support math talk and relate to practices being implemented in teachers' classrooms.
- Write framework on sentence strips
- Present to large group

Say Something

Read silently to the designated stopping point

- When each member is ready, stop and each will say something:

The something might be a question, a key point, an interesting idea or a personal connection

- Continue the process until you have completed the reading

Individual reflection

- What is identity? What does it have to do with math and how students learn?
- How can we promote risk-taking in math, among ourselves and others?
- How can we encourage people to share their thinking?
- How can we encourage making mistakes?
- What structures were used? What frameworks were included? What was the role of the facilitator? What was the role of the participants?