

SHADOW CON

At NCTM's 2015 National Conference in Boston this year, co-founders Dan Meyer, Zachary Champagne and Mike Flynn created and organized Shadow Con, a 90-minute session in which six speakers presented for ten minutes on a topic of their choice. Between three hosts, six presenters, over 425 physical attendees and thousands of others online, it was a conference experience unlike any other. Each speaker was paired with a “live tweeter” who had the incredibly speedy job of tweeting quotes, pictures and anything else they found inspiring during the talk under the hashtag #shadowcon15. This allowed participants from around the world the opportunity to be a part of the learning, in real time.

While all of the presentations permeated with inspirational messages intended to spark ideas and conversations around how we, as teachers, can provide the best learning experience for our students, they each ended with a unique “Call to Action.” In the Call to Action, each presenter invited attendees, both physically in the room and virtually, to engage in ongoing conversations and work together to follow through on the message of the talk.

This guide is intended to help professional development facilitators plan for the utilization of the Shadow Con talks and calls to action to meet the learning needs of their participants. The planning stages and discussion questions can be used in smaller PLC structures, larger staff settings or engaged in as an individual learner.

For more information about Shadow Con, visit FAQs at www.shadowmathcon.com.

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Facilitation Guide

Choosing a Talk

- Think about your audience and purpose of the learning experience in choosing an appropriate talk(s). Below are names, descriptions, and links to the talks available on the Shadow Con website:

“Breaking the Cycle” by Tracy Zager

The majority of elementary school teachers had negative experiences as math students, and many continue to dislike or avoid mathematics as adults. We'll look at how we can better understand and support our colleagues, so they can reframe their personal relationships with math and teach better than they were taught.

“Sitting Among Students” by Elham Kazemi

I will paint a picture of joyful possibilities. What happens when teachers find creative ways to teach together, listen intently to children's thinking about mathematics, and experiment with new ideas?

“Let's Laugh About Math” by Laila Nur

You're sitting in your classroom, you're watching your students struggle, and your class time is passing you by. Keep procrastinating, over and over. Well, maybe I'll help them with their confidence next year... maybe next semester. No, do it right now! You spend all day trying to build your

students' academic identity anyhow. Why don't you make a change that's going to improve their confidence in mathematics? Why are you making it complicated? It's easy – let's laugh about math!

“Be Genuinely Curious” by Kristin Gray

When students enter our classroom, we ask them to be genuinely curious about the material they are learning each day: curious about numbers and their properties, about mathematical relationships, about why various patterns emerge, but do we, as teachers, bring that same curiosity to our classes? Through our own curiosities, we can gain a deeper understanding of our content and learn to follow the lead of our students in building productive, engaging and safe mathematical learning experiences. As teachers, if we are as genuinely curious about our work each day as we hope the students are about theirs, awesome things happen!

“Listen To Your Students” by Christopher Danielson

Teachers are busy—so busy we often don't hear what students say. Sometimes we hear things that students don't say. I'll make a case for the importance of listening carefully to students of all ages. I'll encourage you to make time to listen more carefully, and I'll give you some simple strategies for doing it.

“Why Our Hints Don't Help” by Michael Pershan

Imagine staring at a math problem that you just don't get. You want help, but you want the right kind of help – something that gives you a chance to be smart and leaves you with a tool to apply to other problems. In this talk I'll explain why most hints let our students down and how we can do better by our kids.

Planning Questions

Use the following questions to help guide your planning for the professional development experience to best meet the needs of the learners:

- What are the learning goals for your session?
- What message(s) are you looking to convey within the context of the learning experience?

- What connections do you hope the audience makes between the talk and their own professional work?
- How may the call to action be used in future work together?

Before the Talk

- Encourage participants to read the description of the talk on the site.
- Together, brainstorm the questions or curiosities participants have right now regarding the topic.
- Create a list of what participants hope to gain from watching the talk and the follow up discussion.

During the Talk

- During and/or after the talk, complete the Notice/Wonder handout. (Page 7)

After The Talk Discussion

Below are a list of questions you may want to use to guide the discussion around a given talk. However, we encourage you to ask your own questions and explore your own curiosities.

Breaking the Cycle

- *The word clouds in the talk came from lots of stories put together, but all our stories are unique. If you were going to represent your experiences with math, what would it look like? (Participants could discuss this question, or do some individual, private reflection with a little time to write or draw.)*
- *How does your personal relationship with math come into your classroom and teaching?*
- *What experiences would help you deepen and improve your relationship with and knowledge of mathematics as an adult learner? How would that work benefit your students?*

Sitting Among Students

- *How do you imagine giving yourself permission to take a timeout could add to your experience of trying something out with a colleague?*
- *What kind of work would you have to do to prep for the lesson together and to prep the students for what you were trying that day?*
- *After trying a TTO, what did you learn that you'll want to do differently next time, either in teaching or in how you use teacher time outs?*

Let's Laugh About Math

- *How do you currently promote student confidence around mathematics in your classroom?*
- *Where do you see opportunities for the use of humor in your classroom to engage students in the math?*
- *Which of the bullets on Laila's "Movement" slide do you think could be best improved with humor?"*

Be Genuinely Curious

- *What ideas are you curious about right now within your work? (If you have examples with you, please share)*
- *Where do you turn to resolve these curiosities? What are possible resources available to you?*
- *How do the answers to your curiosities currently impact your planning and instruction?*
- *How could you use these curiosities to better guide and plan instruction?*
- *What awesome things might happen if we came to teaching genuinely curious about our teaching, the math, and our students?*

Listen To Your Students

- *In your own words describe the difference between hearing what your students say and listening to what your students say. How are they different?*

- *What activities and/or structures in your classroom afford you the opportunity to listen to your students' thinking?*
- *What type of classroom learning experiences could you use that allow for a range of student responses based on the words, "It depends"?*

Why Our Hints Don't Help

- *What are your feelings in regards to "hints" after this talk?*
- *"It's important for teachers to let students do all the mathematical work." Do you agree or disagree? Go around the group once and give a "one word" response, then go around again and give reasons for what you think.*
- *"When you're dealing with a kid who is stuck, questions are always better for learning than suggestions." Do you agree or disagree?*
- *"It's important for teachers to plan their questions in advance." Agree/disagree?*
- *Which of the "4 'Problems with our hints'" do you think you could improve upon in your own instruction? How?*

Follow Through

- What changes will you implement based on watching this talk and discussing with your colleagues (or administrators, etc)?
- Read the Call to Action for the chosen talk.
- What time frame do you give yourself on the Call To Action?
- How will you share your findings with your school/local PLC?
- How will you share your findings with the larger MTBOS community? *If you are sharing on Twitter or FaceBook, please use the hashtag #shadowcon15 and include the presenter's Twitter handle.



I Notice...

I Wonder...