

Professional Development for Researchers Who Don't Study PD

Suggestions for Co-Designing PD with Teachers

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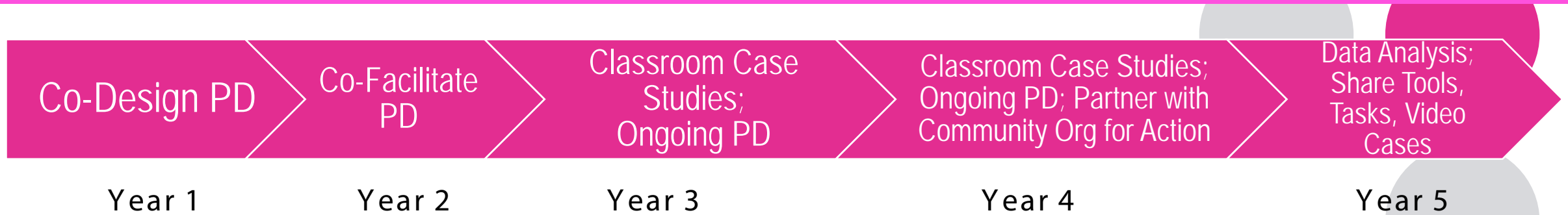
Critical Qualitative Researcher

- Comparative Case Study of two teachers' classrooms who use Social Justice Mathematics (Kokka, 2019, 2020, 2022)
 - Interview studies (Kokka, 2016, 2018, under review)
 - Photovoice (Kokka & Chao, 2020)
 - Professional Development research
 - with teacher candidates and following them into their induction year
Political Conocimiento in Teaching Mathematics: Preparing Teachers to Advocate for Students
Spencer project with Rochelle Gutiérrez and Marrielle Myers
(Gutiérrez, Myers, & Kokka, 2021; Myers, Kokka, & Gutiérrez, under review; Gutiérrez, Kokka, & Myers, under review)
 - with math teachers at one public charter high school learning to use Social Justice Mathematics
NSF CAREER: Partnering with Teachers and Students to Engage in Mathematical Inquiry about Relevant Social Issues
Participatory Design Research (PDR) study (Bang & Voussoughi, 2016)
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Partnering with Teachers and Students to Engage in Mathematical Inquiry about Relevant Social Issues CAREER

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Research Questions:

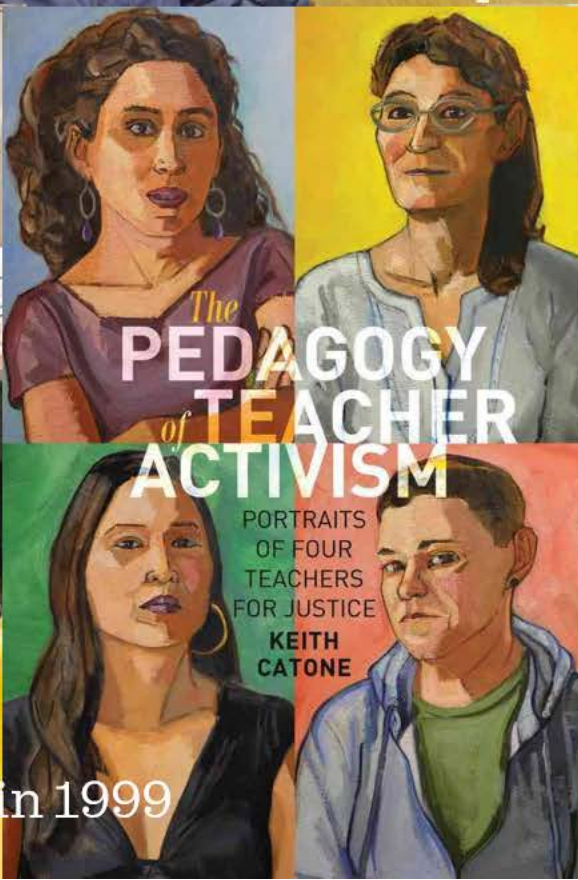
- (1) How do teachers learn to adapt mathematics tasks to make them cognitively demanding and socially relevant for their students? How do contextual factors (e.g., specific school context/location/history, student backgrounds, teacher backgrounds, such as race and class) influence teacher learning?
 - (2) What dilemmas become salient and how do teachers negotiate them while implementing the tasks?
 - (3) How do these tasks improve students' attitudes about mathematics and feelings of empowerment?
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From one of my teachers:

- Somehow, I don't even know how you do it. But you have an agenda. You have what you want to do. But somehow it becomes our agenda. And it doesn't feel like you're pushing anything on us at all. It's an art form. I've grown so much, but you have not told me to do one thing.
 - An outside relationship can kind of get strained where it feels like a job. And the relationship with an outsider who is separate is like, "Oh, I'm doing things just for your research." It can become dysfunctional, toxic. But I don't even know how I'm helping you. You're just helping me, and I don't even know how I'm helping you.
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Co-presenting at a conference with my former student Reyna



Vanguard HS NYC Title I public school (2001-2011)
Math teacher, advisor, instructional coach

Started teaching at Berkeley HS in 1999
Math Teacher Activist

My background as a math teacher, math coach, and PD Provider

Vanguard HS Math Teacher, Title I public school in NYC (2001-2011)

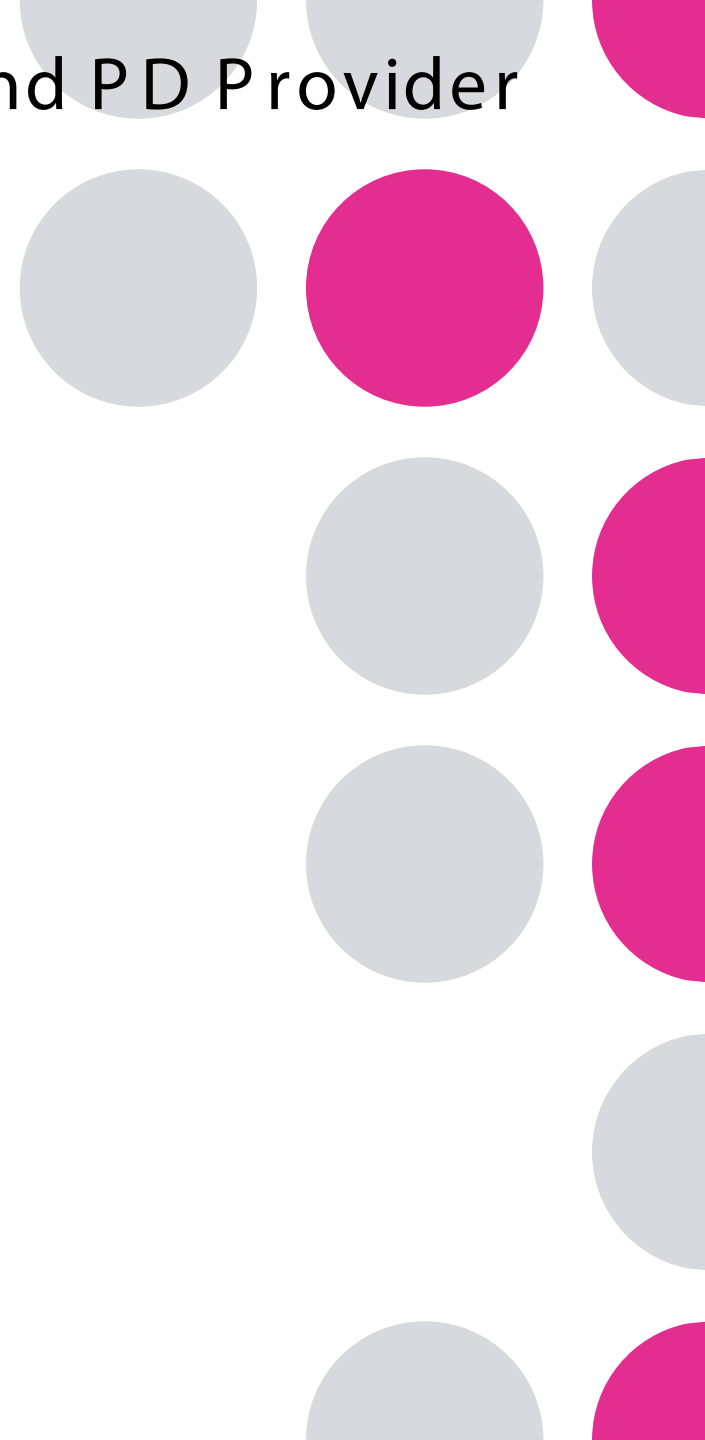
- Teacher Leadership Team
- Teacher-led PD
- Pedagogy of Louis Delgado's Heart:
Asset-based perspective of all teachers, students, family members
School community as a family
- Math Team's Teamwork (e.g., Boaler, 2015; Cohen & Lotan 2014; Horn, 2012)
There Is No "I" in Team: Creating Equitable Math Classes using Complex Instruction

Region 9 Math Coach NYC (2005-2011)

- Content focused coaching (West & Straub, 2003)
- Teacher decides focus and goals
- Pre and post conferences
- "Low inference notes" / Lesson Study / Video Club
- Build on teachers' strengths
- Co-create foci and goals for next observations, PD sessions

Stanford Center for Assessment, Learning, and Equity (2013-2016)

- Resources, Interactive PD sessions
- Team-based PD



PD Co-Design Suggestions

- Research initiated by teachers (or students, community members, etc.)
 - Participatory Action Research (PAR)
 - Youth Participatory Action Research (YPAR)
 - Participatory Design Research PDR (e.g., Bang & Voussooghi, 2016)
- Decision to participate from teachers not administrators
- Relationship and trust building
- Adult learning principles (coaching and ed leadership frameworks – choice, collaboration)
- Contribute to teachers and the school community (if they desire/ask)
- Invite feedback (anonymous feedback is more honest)
- Collect data in supportive, non-laborious, non-intrusive ways that help teachers
- Navigating tensions in PD co-design and co-facilitation
- Asset-based, curious lens / building on teachers' strengths (math coaching lens)

Thank you!

I look forward to consulting, collaborating, and learning with you!

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