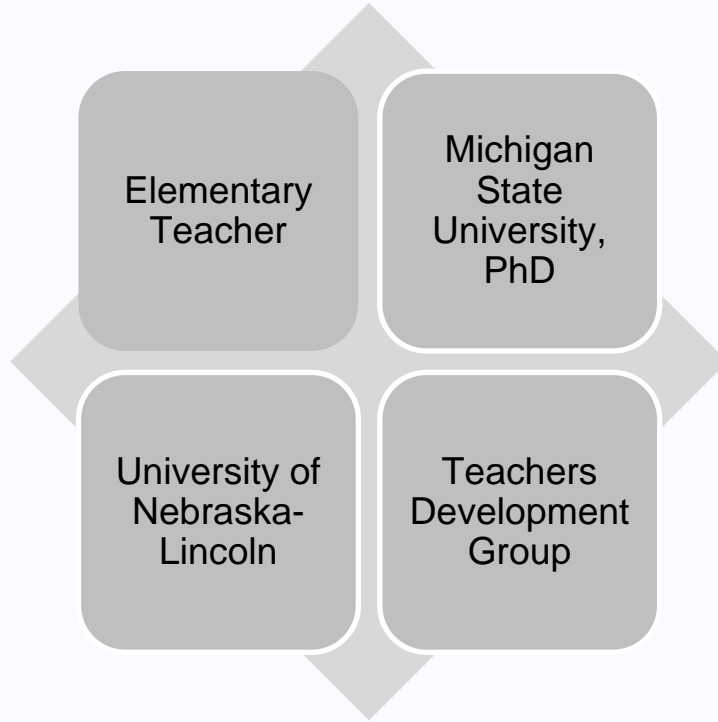




# Ruth Heaton

Teachers Development Group  
Portland, Oregon

# Background





# Teachers Development Group

*A non-profit organization dedicated to improving all students' mathematical understanding and achievement through meaningful, effective professional development for teachers and school leaders.*

Research



Practice



- ★ *Teaching Mathematics to the New Standards: Relearning the Dance*  
(Heaton, 2000)
- ★ *Learning from Practice About Improving the Quality of Mathematics Teacher Research*  
(Smith & Heaton, 2013)
- ★ *Translating Professional Development for Teachers into Professional Development for Instructional Leaders*  
(Carlson, Heaton, & Williams, 2017)
- ★ *The Efficacy of Research-Based “Mathematics for All” Professional Development*  
(Melhuish, et al, forthcoming JRME)

# Professional Development Projects



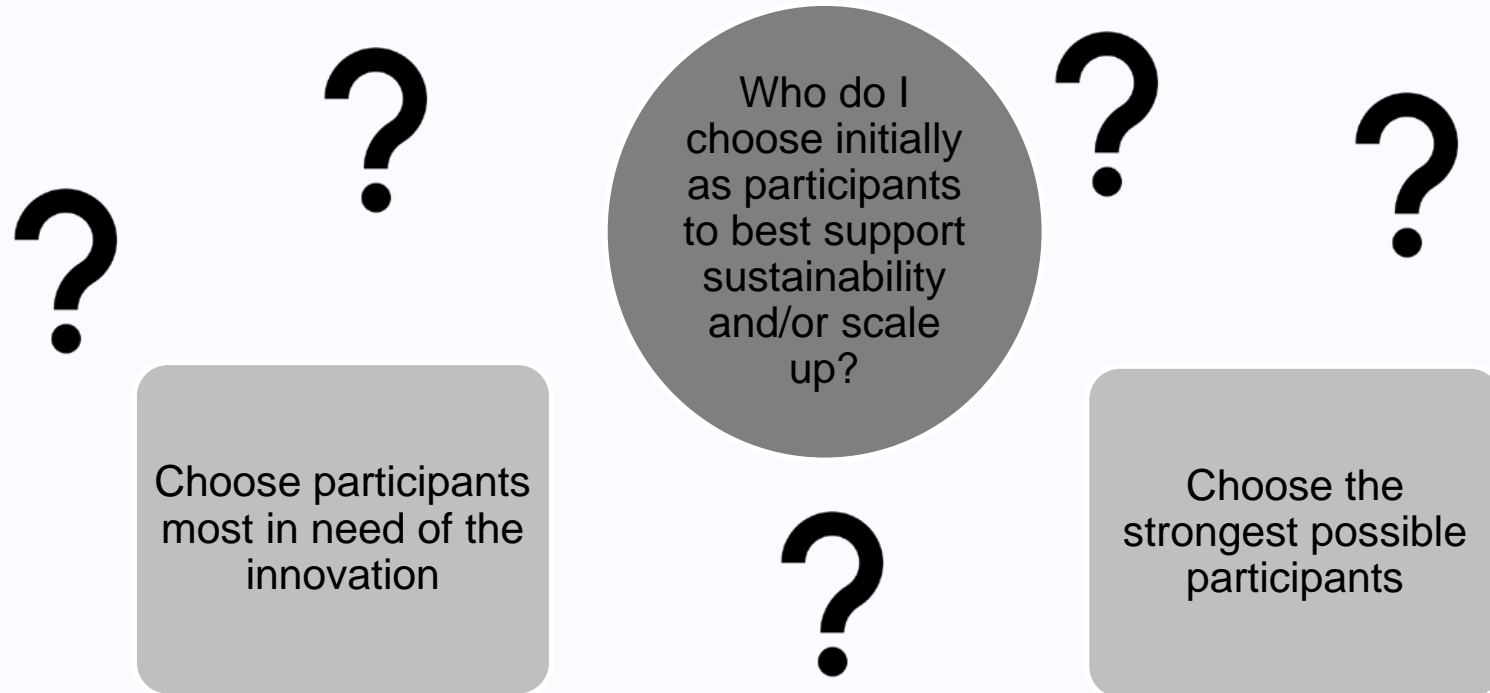
## Teachers Development Group

- Math Studio
- Co-learning Math Project
- Community-Centered Math Studio
- Rehumanizing Math Early On
- Math Pathways

## University of Nebraska-Lincoln

- Math Matters
- Math in the Middle
- Nebraska Math
- Primarily Math
- Math Early On

# Dilemma in PD Design



## Design Principle



**Plan professional development for multiple years with participants who are already learners and leaders.**

*Learning Trajectories for Teachers: Designing Effective Professional Development for Math Instruction*

(Sztajn & Wilson, 2019)

*Teachers as Learners* (Feiman-Nemser, 2012)



### REPHRASE THE QUESTION

Who are the participants who are **learners** who will **commit over time** to learning my innovation in meaningful ways so they **build their own capacity** to **later lead the innovation**?

- Recruit **volunteers**.
- Recruit participants who are seen by others and view themselves as **leaders**.
- Choose participants who are in **schools with strong leadership**.
- Strong teachers and leaders stick together. **Sustainable change needs to be systemic**.
- Choose pairs, teams, or school communities who **work together as colleagues**.
- Build capacity of **early adopters to become innovation leaders**.

Design an innovation whose enactment necessitates **generative growth**. (Franke, Carpenter, Levi, & Fennema, 2001)