

Supporting Inquiry into Professional Development Facilitation: The Potential of a Practical Measure of Teachers' Experiences

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Overview

- Introduction to a practical measure of professional learning
- Cases of use:
 - Generative uses of the practical measure
 - Conversational routines supporting generative use
- Implications and future work

The background is a solid red color with two white, wavy, horizontal lines that create a sense of movement and depth. The lines are positioned above and below the central text.

Introduction to the Practical Measure of Collaborative Professional Development (PD)

Motivation for the practical measure of collaborative PD

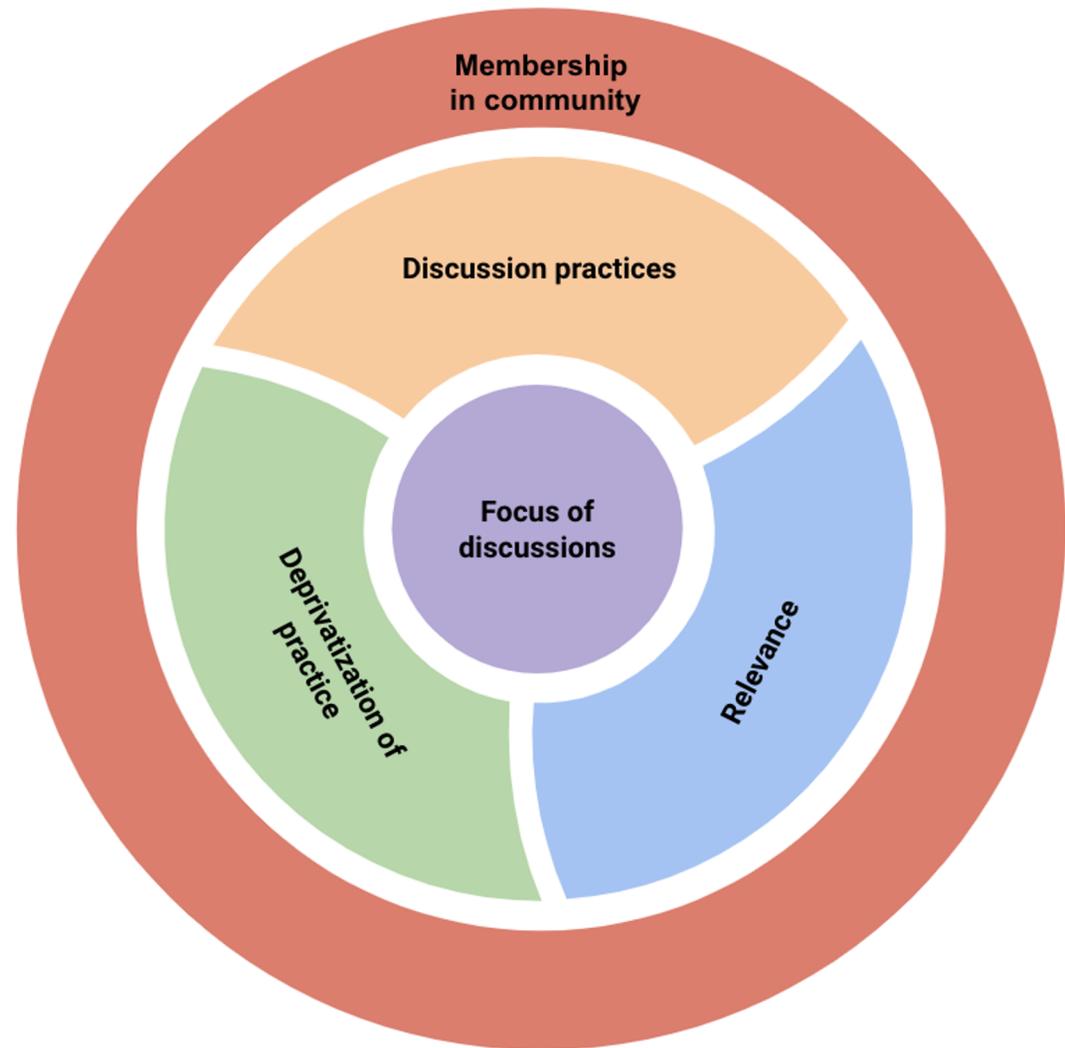
Critical issue:

How to support facilitators' ongoing learning and improvement of their practice as they facilitate PD focused on the development of high-quality, student-centered mathematics teaching

Practical measure of collaborative PD:

- Teacher-facing survey that takes 3-4 minutes to complete
- Provides facilitators with timely feedback about teachers' experiences, in relation to features that matter for teachers' learning in collaborative mathematics PD
- Designed to support facilitators to inquire into their facilitation practice

features of
high-quality
collaborative
professional
development



Take a look at the practical measure.

Turn and talk with a neighbor:

- What do you notice?
- What do you wonder?

Be sure to check in & introduce yourself!



COLLABORATIVE PROFESSIONAL LEARNING SURVEY

Version 5: For contexts that work in small groups & whole group, do math together, and involve secondary teachers.

Directions: Think about your experiences with this group of teachers and leaders while answering each question. Please note that some questions prompt you to select all response options that apply.

This set of questions asks about how you feel you can engage with this group of teachers and leaders.

1. I feel like I can share a mathematical idea I am unsure about... (Select all that apply.)
 in the whole group
 in neither the whole group nor my small group
 in my small group
2. I feel like I can share an idea about teaching I am unsure about... (Select all that apply.)
 in the whole group
 in neither the whole group nor my small group
 in my small group
3. I feel like I can ask others to elaborate on an idea... (Select all that apply.)
 in the whole group
 in neither the whole group nor my small group
 in my small group
4. I feel like I can push back on an idea... (Select all that apply.)
 in the whole group
 in neither the whole group nor my small group
 in my small group
5. I would be open to sharing the following with this group of teachers and leaders... (Select all that apply.)
 an anecdote about what my students said or did
 an anecdote about something I said or did when teaching
 samples of my students' written work (examples: exit tickets; photos of student work)
 a math task or activity
 video of my students solving problems
 video of my teaching
 I would not be open to sharing any of the above.
6. I would be open to inviting members of this group of teachers and leaders to visit my classroom... (Select all that apply.)
 Yes No

bit.ly/aerapmrr

“2. Practical Measure of Teachers’ Experiences”

**Additional info:
“Annotated Practical Measure of Teachers’ Experiences”**

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VERSION 5, 210617, pmcollabpl



Relevance:

Participants view the focus of the professional learning as possible with their own students in their own contexts.

9. I feel ready to try something I learned today in...

- all of my math classes
- some of my math classes
- none of my math classes

If applicable, what are you planning to try?

If applicable, in which classes are you hesitant or not ready to try something, and why?

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- a math task or activity
- video of my students solving problems
- video of my teaching
- I would not be open to sharing any of the above.

6. I would be open to inviting members of this group of teachers and leaders to join a lesson of mine.

- Yes
- No



Discussion practices:

Participants share tentative or rough-draft thinking

1. I feel like I can share **a mathematical idea** I am unsure about...
 in the whole group
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 in neither the whole group nor my small group
2. I feel like I can share **an idea about teaching** I am unsure about...
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 in my small group
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- Yes No

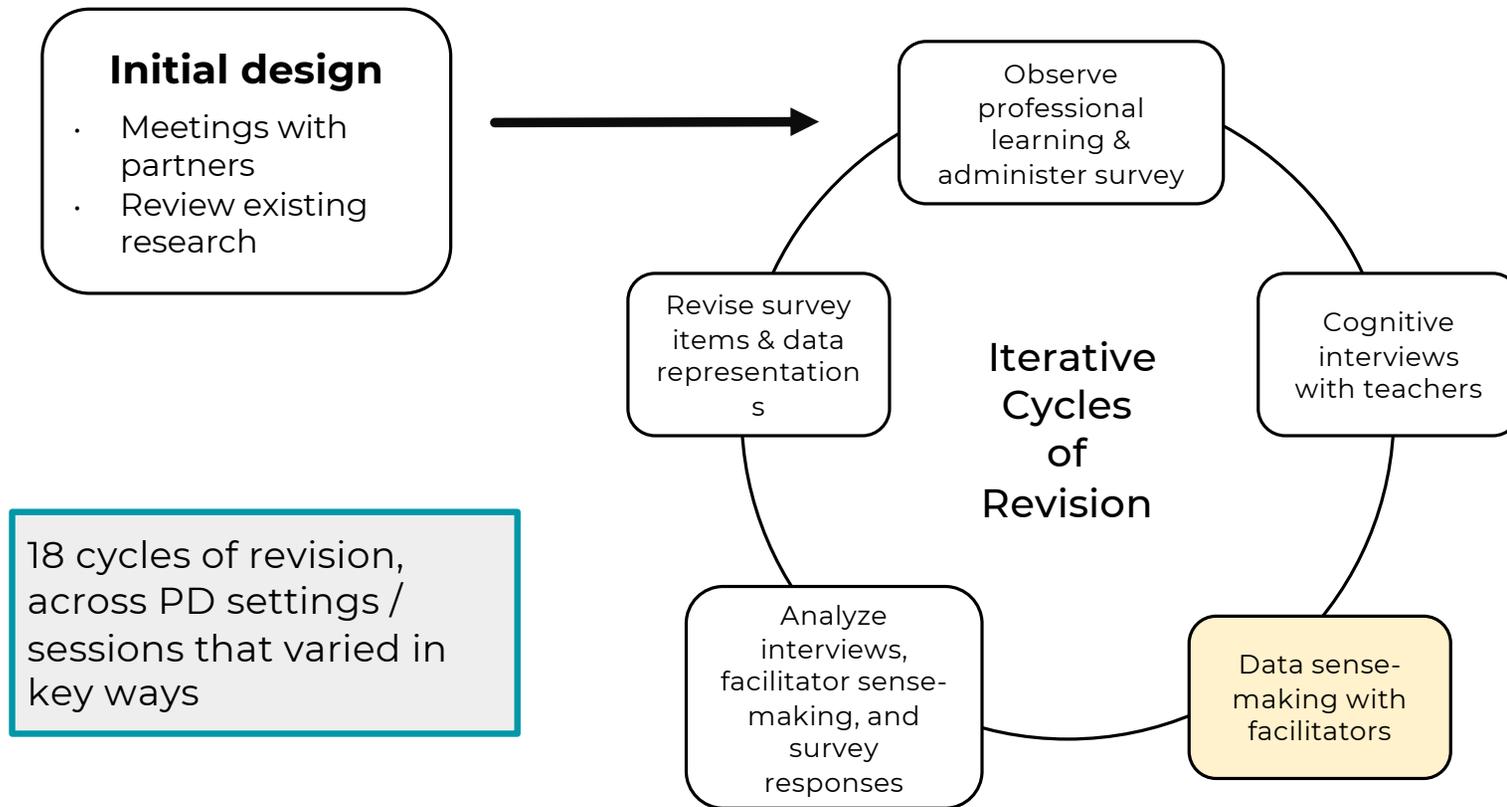


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Development process



Case of Use: Generative Uses of the Practical Measure

How did a facilitator use the practical measure to inquire into her facilitation, set goals, and assess change in her own facilitation practice?

Read more:

Nieman, H. J., Jackson, K., Jarry-Shore, M., Borko, H., Kazemi, E., Chinen, C., Lenges, A., Yilmaz, Z., & Haines, C. (2022, February). **Using a tool that assesses teachers' experiences of collaborative professional development to inform and improve facilitation.** Paper presented at the *12th Congress of the European Society for Research in Mathematics Education (CERME12)*.

Context

- Focal facilitator, Reina:
 - 28 years experience as a teacher
 - 2 years experience as a coach
 - Newer to facilitating PD
- Two leaders, Sally and Alice:
 - >10 years experience as teachers and PD facilitators
- Supportive context:
 - Organization that provides PD to teachers and facilitators
 - PD rooted in research on student and teacher learning
 - Ongoing, structured support



Context

Teacher PD

- Middle grades, school-wide mathematics professional learning community (5 teachers)
- Five-session virtual PD sequence focused on facilitating mathematics discussions
- Facilitated by Reina, and most sessions were attended by Sally

Session
One

Session
Two

Session
Three

Session
Four

Session
Five

Session Two
debrief conversation

Session Five
debrief conversation

Facilitator debrief conversations

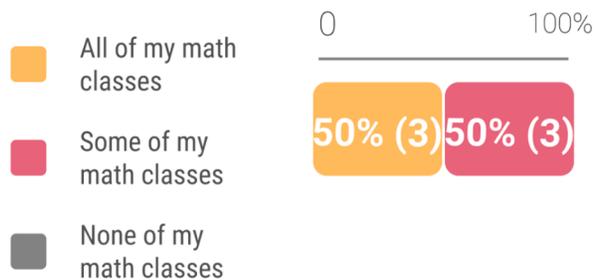
- One-hour conversation debriefing the session and making sense of teachers' survey responses
- Involved Reina, Sally, Alice, and researchers

Debriefing teachers' responses to Item 9 in Session Two



Item 9

I feel ready to try something I learned today in:



“ [These responses are] eye opening for me.”
(Reina, Session Two debrief conversation)

“ [Responses to this item] served as a red flag.”
(Reina, follow-up interview)

What are you planning to try?

Teacher A: I plan to work with discussion frames for my [advanced] 7th grade class. [My advanced] class works the most collaboratively, so there are opportunities to try the new skills..

In which classes are you hesitant to try something, and why?

Teacher B: 4th period...they are so unwilling to participate openly

Teacher C: Algebra ... we are taking tests and studying for the final ... I am not sure if that is the time to learn from each other

“Those comments ... are concerning to me because apparently I haven’t pressed that this is good teaching, and good teaching happens every day. It's not something that we pick and choose. ‘Oh yeah, I can engage the kids in the [high-leverage instructional practices] on *this* task, but ... we've got to cover content or we've got to review content.’ Kids that are unwilling to participate, those are the ones that we need to jump in and engage in and give access more than ever. [Teachers’ responses to this item] was good information for me to have because **I need to focus on that with this group, that [engaging in mathematical discussion] is good for all [students], and we do mean all [students].”**

(Reina, Session Two debrief conversation)

Changes in facilitation



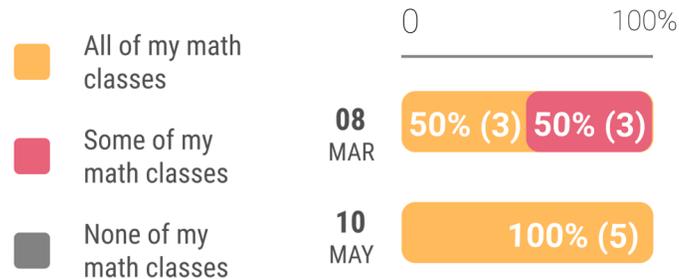
- After session 2, Reina made several changes in her facilitation:
 - For instance, she shared passages from Principles to Actions related to equity and posed discussion prompts like:
 - “What are we doing when we don't provide deep rich math conversations and we exclude kids from those? What are we doing to their futures as mathematicians?”

Debriefing the change in teachers' responses to Item 9



Item 9

I feel ready to try something I learned today in:



"I'm glad. Glad is not the right word. I'm almost relieved to see that change from 'some of my classes' to 'all of my classes.'"

(Reina, Session Five debrief conversation)

"It looks like we've reached a little more toward [my goal that] they believe that they will implement this with all students in all classes."

(Reina, Session Five debrief conversation)

Case of Use: Conversational Routines

How did debrief conversations support a facilitator's inquiry when using the practical measure?

Read more in the AERA conference paper associated with this session.

conversational routine

“patterned and recurrent ways that conversations unfold within a social group”

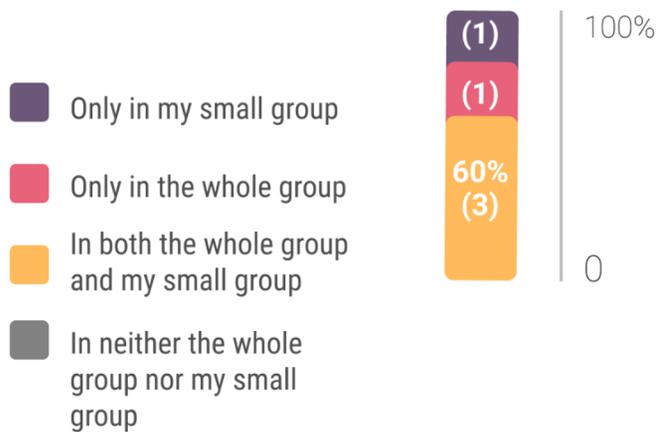
(Horn & Little, 2010, p. 184)

Debriefing teachers' responses to Items 1 & 2 in Session Two



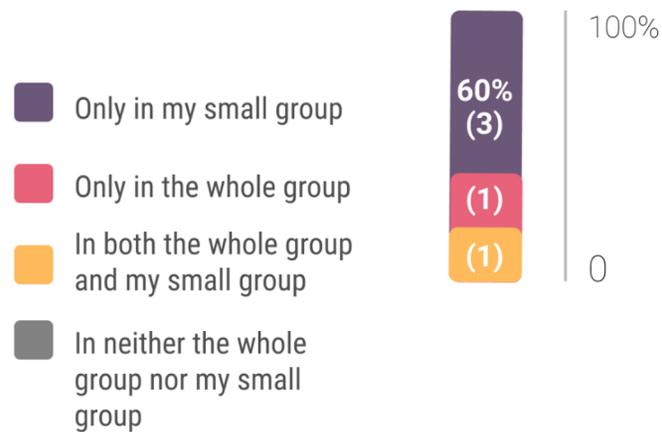
Item 1

I felt like I could share a mathematical idea I was unsure about



Item 2

I felt like I could share an idea about teaching I was unsure about



Making an aspect of teachers' responses focal

Leader Sally: I think **it's interesting that more people said they only wanted to share about teaching in their small group**. 60% said math they could share in both whole and small [group], and 60% said they could only share about teaching in their small group.

Specifying and revising a problem of facilitation practice

Facilitator Reina: That's good information for me as a facilitator. **I need to focus more on giving them that opportunity to reflect publicly on their teaching practice and have those conversations.**

Leader Sally: Reina, **it makes me think that it is the nature of their more confident thinking about math ideas. They're less confident being willing to talk about their teaching ideas.** "I don't want to share publicly about my teaching, but I feel okay about sharing publicly about math."

...
Facilitator Reina: **Timewise, I didn't give them enough time to talk about how they were going to ... incorporate [the ideas from the PD] into their practice.** In some ways, the results of [Items 1 and 2], could be based a little bit on the time that they were allotted in each of those.

Generating a principled change idea and/or generalization

Leader Sally: Reina, I think that's really interesting information for us. When we've got these short chunks of time, which lots of what we're doing now are these short chunks of time, **do we [frame it] upfront by saying, "Today we're going to spend more time thinking about math ideas, and have less time thinking about the instruction. But, next time, maybe we'll have more time to focus on instructional ideas and less time to think about math"?** That's just good information for us across lots of contexts.

Implications and Future Work

HOW a practical measure is used matters greatly for the quality of the inquiry possible

Implications: This study suggests we should attend to:

- **Who** inquires into the resulting data
- The **routines** guiding their conversation

Future work: We will continue to explore how facilitators with different experiences, orientations, and opportunities to converse with others make sense of teachers' responses

a practical measure is **ONE** tool among many to support inquiry into practice

Implications: This study suggests practical measures be used alongside a range of other data sources (e.g., observations, artifacts of learning)

Future work: We will examine how facilitators use multiple data sources in tandem / triangulate the data sources.

Thank you!

Visit our website: <https://www.pmr2.org>



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