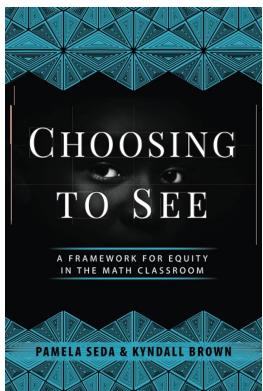


5 Ways We Include Others as Experts



The first part of the ICUCARE Framework from the book Choosing to See is Including Others as Experts. This means to “Create classroom environments that extend beyond the teacher as the sole authority to develop competence and confidence in others as experts, including the students themselves.”

Building competence and confidence in students is something we strive for at our elementary school. Our students are experts at finding patterns, noticing and wondering, speaking Spanish to help our new students, coaching others, and finding joy in mathematics.

While it's a work in progress, the following are 5 ways we are working to include others as experts.

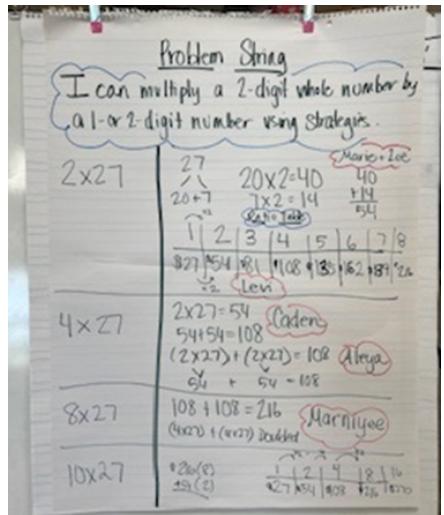
1. Math community, norms, routines, structures



Everyone is a mathematician and is expected to contribute to the learning environment. Students justify their thinking, show their understanding and help others by coaching through questioning.

2. Mathematical Goals and Standards of Mathematical Practice

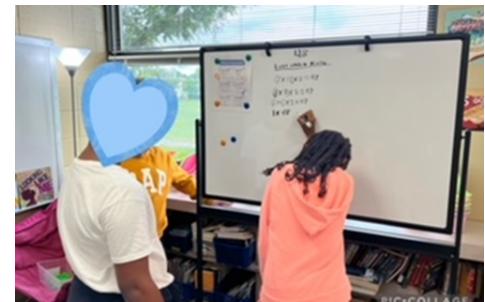
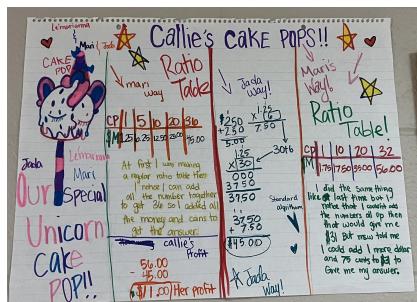
Teachers post and refer to mathematical goals throughout the lesson to check in on student understanding. It also helps both the teacher and students to assess what they know and what they need to work on. In Problem Strings, we have added student names to assign competence and elevate student problem solving strategies. In our math program the Standards for Mathematical Practice are listed alongside the mathematical goals. If you're looking for more information, I have learned more in this [Standard of Mathematical Practice Document](#).



SMP 8: Look for and express regularity in repeated reasoning.

3. Multiple Representations and Strategies

This is closely tied into the previous way to include others as experts. Using our Minnesota Math Standards and math program, students are taught strategies and visual models. This year we are slowly implementing Visible Non-permanent Surfaces. Last year we heard students debate about the most efficient strategy and try to prove to the other why it's the most efficient. Similar to the work in Problem Strings, students became experts in various strategies and like to share their understanding with others.



4. Explain and Justify Thinking

Our students are very comfortable showing their work but we are working on the confidence to show that work in small or whole group. Despite the work to equalize the status of students, those who are fast to the answer get the attention of being the best at math. We have used sharing protocols and sentence frames to ensure all students have the opportunity to share and be heard. Starting a Turn and Talk with the expectation that they will share what their partner said has been helpful.

5. Student Self-Assessment

The use of pretests, learning targets, and informal check-ins support our goal of strength-based instruction. Students reflect on their understanding and make choices in next steps whether it is additional practice, various groupings or extensions. These check-ins allow students to know and show their strengths and advocate for their next steps.



Check out the [2023 Making Math Moments Virtual Summit November 17th, 18th and 19th!](#) Dr. Pam Seda and Peter Liljedahl are speaking. You can register [here](#) and will have access to the sessions all weekend.



Pamela Seda

CEO, Seda Educational Consulting

November 17, 2023, 08:15 PM (UTC-5) - [View your local time](#)

Creating Culturally Relevant Math Tasks–Not as Hard as You Think!



Peter Liljedahl, Jon Orr & Kyle Pearce

November 17, 2023, 07:00 PM (UTC-5) - [View your local time](#)

Building Thinking Classrooms: Closing Lessons with Intentionality

In case you missed it, more resources can be found in the [October MathBits](#).