

Meaningful Discourse for Math

<p>Problem</p> <p>Number talks are new to me and I'm not comfortable trying them out on my students</p> <p>I don't know how I will assess how my students are doing when I use a number talk as part of a lesson</p> <p>I worry about being to reach all students in my class</p> <p>I don't have the resources (tools, time, support) to do number talks well/get good at doing so quickly</p> <p>Existing Alternatives:</p> <p>Fall back to the way I have been teaching.</p>	<p>Solution</p> <p>Tools:</p> <p>Set of common terms/behaviours to be used by teachers working on meaningful discourse</p> <p>List of sentence starters teachers can use to guide students</p> <p>Quick Checklist for Number Talk lessons, that identifies strategies students might use in the exercise as well common misunderstandings. The checklist also provides a low overhead way for the teacher to make note of the strategies and/or misunderstandings of individual students. It also indicates how the lesson relates to standards (CCSS-SMP)</p> <p>Best practice anchor charts for Number Talks</p> <p>Use Reflection Journals to have students reflect on their own learning/approaches</p> <p>List of ideas for math challenges teachers can use to check understanding</p> <p>Resources:</p> <p>In-building math specialist who is available for in-classroom modeling of meaningful discourse and ongoing support/mentoring as teachers develop their skills in leading math discourse.</p> <p>In-building cohort of teachers working to integrate meaningful discourse into their lessons, and support each other in doing so.</p> <p>Cross school network of teachers working to expand the use meaningful discourse in their schools.</p> <p>Peer-based professional development that respects the voice of teachers.</p> <p>Schedule changes that would allow teachers to observe/provide feedback to each other.</p> <p>Support:</p> <p>Overt support from building leadership for teachers who elect to integrate meaningful discourse into their math lessons.</p> <p>Permission from district administration for teachers to deviate from the pacing guide based on their students' needs.</p> <p>Key Metrics</p> <p># of teachers surveyed to confirm customer profile</p> <p># of teachers surveyed to confirm problem statements</p> <p># of teachers willing to participate in effort</p> <p># of teachers using sentence starters list</p> <p># of number talks/week</p> <p># of teachers doing number talks on a weekly basis</p>	<p>Value Proposition</p> <p>Our approach equips classroom teachers with tools, resources, and support to drive quality discourse in a way that allows it to take root, and commit to seeing that it does.</p>	<p>Unique Advantage</p> <p>Resource teacher that knows how to do number talks and is available to help (Danielle)</p> <p>Supportive Principal</p> <p>Partners who want to help: Learn Deep, UWM, Milwaukee Succeeds</p> <p>Teachers at early grade levels willing to help establish number talks as a building wide process (making it easier for teachers at higher grade levels)</p> <p>Staff trained in systems thinking that can use these tools to better understand the factors that will allow the practice to spread</p> <p>Channels</p> <p>Classroom visits</p> <p>Whole group experience for teachers within the building</p> <p>Recommended reading list</p> <p>Student advocates</p>	<p>Customer</p> <p>K-8 Classroom Teachers</p> <p>Early Adopters</p> <p>Teachers in the room (STI Workshop)</p> <p>Teachers currently experimenting with number talks</p> <p>Teachers with the cognitive overhead to take on a new challenge</p>
<p>Cost Structure</p> <p>Staff time/energy to establish culture of discourse</p> <p>Design and creation of resource materials</p> <p>Dedicated time for staff to collaborate/practice skills</p> <p>Time to engage staff to secure buy-in</p>	<p>Revenue/Value Creation Structure</p> <p>Engaged Students</p> <p>Higher Proficiency in math</p> <p>Quality instruction</p> <p>Increased confidence of teachers</p> <p>Increased respect for/trust of teachers</p>			