

Number Talks in the Secondary Classroom

Learning Goals and Resources

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Title: Using Number Talks to build math fluency and flexibility in the secondary classroom.

Session Learning Goals:

- Develop an understanding of how Number Talks helps to develop students' number fluency and flexible thinking in the classroom.
- Develop an understanding for how Number Talks can help students make mathematical connections across strategies and strengthen student use of academic language.

Resources:

- **Website:** Mathematically Connected Communities (MC²)
<http://mc2.nmsu.edu/>
- **Website:** Los Alamos National Laboratory Math and Science Academy (MSA)
<http://www.lanl.gov/community/education/teacher-resources/math-science-academy.php>
- **Handout:** *Number Talks at a Glance* (Wisconsin Mathematics Council, 2015)
- **Article:** *Fluency Without Fear: Research Evidence on the Best Ways to Learn Math Facts* (Boaler, 2015)
- **Article:** *Number Talks: Building Mathematical Reasoning* (Parrish, 2011)
<http://www.wismath.org/Resources/Documents/Annual%20Conference/104NOverholzer-Number%20Talks%20Handout.pdf>
- **Video:** Jo Boaler speaking about the research on number sense
<https://www.youtube.com/watch?v=Jeel4Qjow4s>
- **Video:** Jo Boaler introduces Number Talks
<https://www.youtube.com/watch?v=yXNG6GKFhQM>

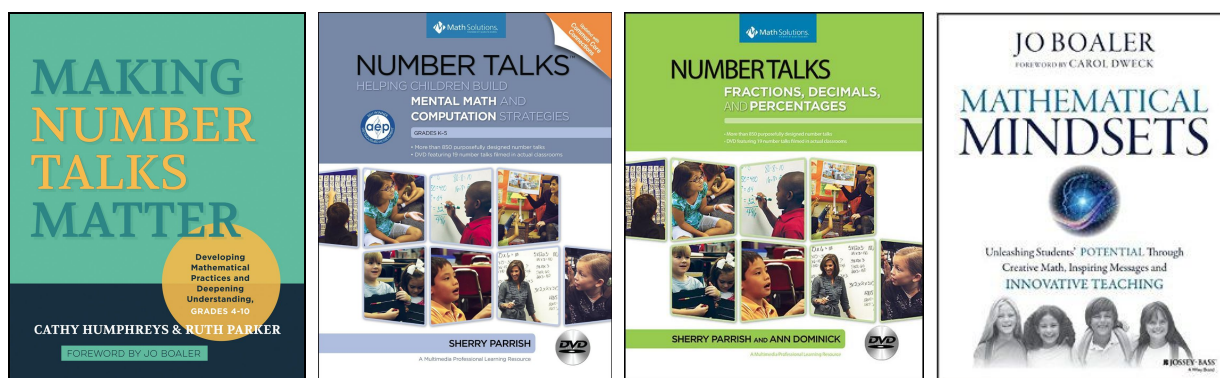
Books:

Boaler, J. (2016). *Mathematical Mindsets: Unleashing students' potential through creative math, inspiring messages and innovative teaching*. San Francisco, CA: Jossey-Bass.

Humphreys, C. & Parker, R. (2015) *Making number talks matter: developing mathematical practices and deepening understanding, grades 4 - 10*. Stenhouse Publishers.

Parrish, S. & Dominick, A. (2016). *Number talks: fractions, decimals, and percentages*. Sausalito, CA: Math Solutions.

Parrish, S. (2010). *Number talks: helping children build mental math and computation strategies, grades K - 5*. Sausalito, CA: Math Solutions.



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