

ZMATH 2012a.00404

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Number talks build numerical reasoning.

Teach. Child. Math. 18, No. 3, 198-206 (2011).

Summary: "Classroom number talks," five- to fifteen-minute conversations around purposefully crafted computation problems, are a productive tool that can be incorporated into classroom instruction to combine the essential processes and habits of mind of doing math. During number talks, students are asked to communicate their thinking when presenting and justifying solutions to problems they solve mentally. These exchanges lead to the development of more accurate, efficient, and flexible strategies. "Accuracy" denotes the ability to produce an accurate answer; "efficiency" denotes the ability to choose an appropriate, expedient strategy for a specific computation problem; and "flexibility" refers to the ability to use number relationships with ease in computation (Russell 2000). This article provides a more detailed example of how to develop these characteristics. It also discusses the key components of a classroom number talk: (1) the classroom environment and community; (2) classroom discussions; (3) the teacher's role; (4) the role of mental math; and (5) purposeful computation problems. (Contains 3 figures.) (ERIC)

Classification: F32

Keywords: student motivation; classroom environment; teaching methods; mental arithmetic; computation; individual characteristics; grade 4; number sense

<http://www.nctm.org/publications/article.aspx?id=31170>