

How to Use This Resource



Talking About Number Talks Why Number Talks?

Author Clip A.1

In an interview with the author, Sherry Parrish shares why number talks are an essential component in today's classrooms and how number talks provide equity and access in learning and build mathematically powerful students.



Number Talks: Helping Children Build Mental Math and Computation Strategies, Grades K–5 was created in response to the requests of teachers—teachers who want to implement number talks but are unsure of how to begin and teachers who are seasoned in this art of instruction but desire additional support in crafting purposeful problems. The primary purpose of the book is to help teachers begin or refine their use of number talks with whole numbers in the strand of number and operations. The DVD gives readers the opportunity to access authentic classroom number talks with kindergarten through fifth-grade students. The DVD also provides a visual platform for teachers to reflect on their current practices and target essential understandings from their readings.

Regardless of where you are in your number talk journey, it is important to establish a common understanding of number talks before immersing yourself in this resource. Number talks can be best described as classroom conversations around purposefully crafted computation problems that are solved mentally. The problems in a number talk are designed to elicit specific strategies that focus on number relationships and number theory. Students are given problems in either a whole- or small-group setting and are expected to mentally solve them accurately, efficiently, and flexibly. By sharing and defending their solutions and strategies, students have the opportunity to collectively reason about numbers while building connections to key conceptual ideas in mathematics. A typical classroom number talk can be conducted in five to fifteen minutes.

Overview of Number Talks

While *Number Talks* is designed to be read from cover to cover, it is crafted in such a way as to provide differentiation for the range of learners. To accomplish this goal, the book is organized into the following sections.

Reference Tables

Four reference tables provide ease in locating content correlations to the NCTM's Principles and Standards, common student computation strategies by grade level, and classroom video clips by grade level or chapter.

Section I: Understanding Number Talks

Chapters 1 and 2 discuss the key components of number talks and how to establish essential procedures and expectations for their implementation.

Section II: Student Thinking and Number Talks in the K–2 Classroom

Chapters 3 and 4 concentrate on the goals of K–2 number talks, common student strategies used by primary students, and crafting number talks to target specific strategies.

Section III: Student Thinking and Number Talks in the 3–5 Classroom

Chapters 5 and 6 focus on the operations of addition and subtraction with third-, fourth-, and fifth-grade students. The number talk goals for intermediate students are addressed and accompanied by common addition and subtraction strategies for these grade levels. Classroom student–teacher dialogue examples are included in addition to suggested number talks to elicit specific strategies.

Chapters 7 and 8 address multiplication and division strategies for intermediate students, goals for these operations, and specific number-talk sequences to build proficiency with commonly used strategies.

Section IV: The Facilitator’s Guide

While the book may be used as an independent resource, it is also structured to provide a framework for professional learning communities or to provide professional development opportunities through grade-level teams, individual schools, or districts. Chapter 9 allows guided navigation through the DVD by grade-level clips. The chapter also offers a new set of discussion questions (different from the Classroom Links sections throughout the other chapters) for each video clip.

Appendices

- Appendix A, “Author’s Video Reflections,” is a collection of author commentaries for the classroom number talks featured in the DVD.
- Appendix B, “Questions and Answers,” contains commonly asked questions and answers about implementing classroom number talks.
- Appendix C, “Suggested Grade-Level Resources,” provides a repertoire of grade-level resources to assist the classroom teacher in building meaningful, inquiry-based math tasks.
- Appendix D, “Reproducible Templates,” provides the reader with templates for making tools to assist student thinking in number talks, such as rekenreks and five- and ten-frames.

Overview of the DVD

Classroom Clips

In Chapters 1 through 8, readers have an opportunity to view DVD video clips of actual classroom number talks through the Classroom Links sections, a series of guided questions and reflections crafted specifically to address the ideas from each chapter. Readers also have the option of reading the author’s commentary on each Classroom Link (see Appendix A: “Author’s Video Reflections.”) Note that these Classroom Links questions differ from the discussion questions featured in Chapter 9, which can be used in addition to the Classroom Links questions.

Teacher Clips

Clips of interviews with each teacher can be found on the DVD as well as in the book (see Section IV, “The Facilitator’s Guide.”)

Author Clips

Interview clips of the author can be found on the DVD as well as in the book (see the beginning of this section, Chapter 9, and Appendix A).