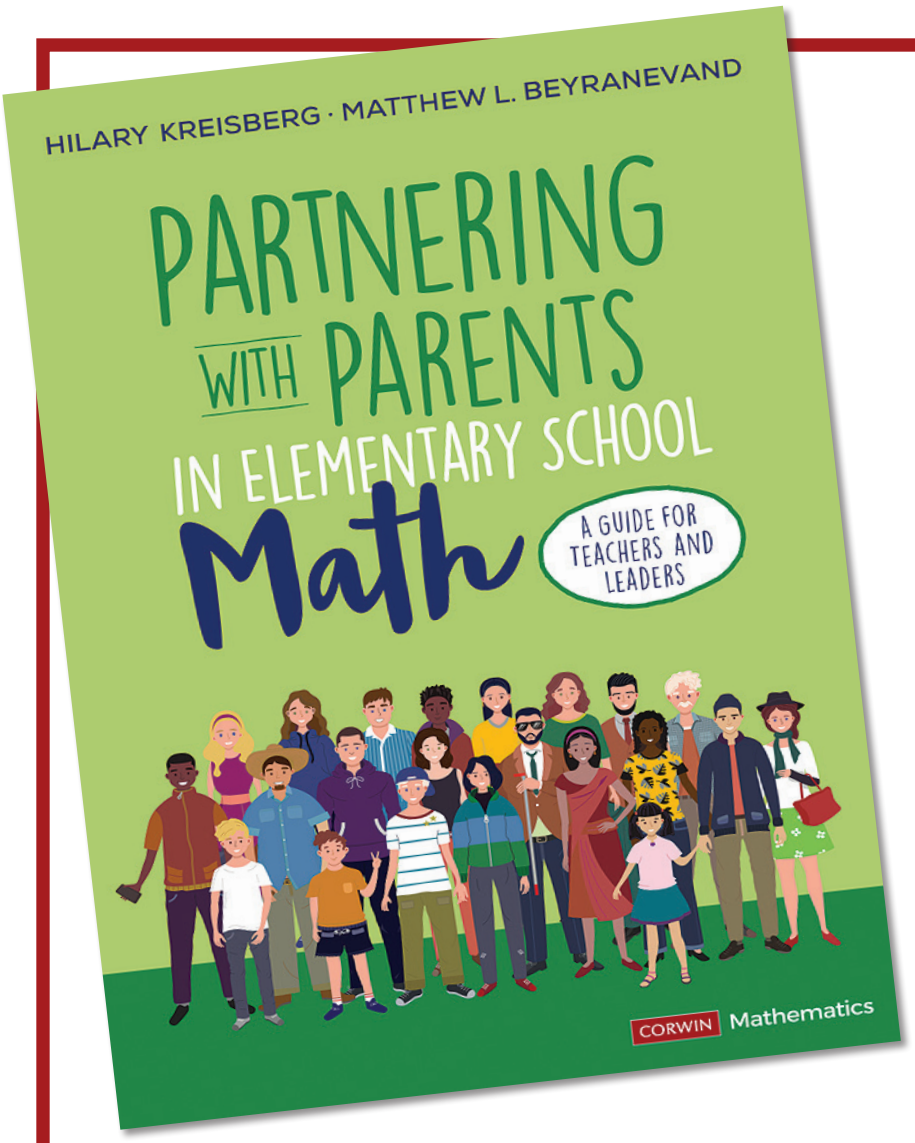


Thank you

FOR YOUR INTEREST IN CORWIN

Please enjoy this complimentary excerpt from *Partnering with Parents in Elementary School Math* by Hilary Kreisberg and Matthew L. Beyranevand.

LEARN MORE about this title, including Features, Table of Contents, and Reviews.

CORWIN Mathematics

WHAT PARENTS DO AND WHY

It is critical to remember that parents want to help their child succeed. As you read in the quotes, some parents have come to embrace the way we teach math—even if they don't fully understand it themselves. Some see their children's excitement and derive their own excitement from it. But far more commonly, parents are frustrated and confused. For those not equipped with an understanding of today's methods and who maybe have not yet come to appreciate the importance of productive struggle, they often want to "rescue" their children. Many parents therefore end up doing at least one of two things:

1. Hindering their child's conceptual development by instructing them in the shortcut methods reflecting how *they* learned the math, sometimes incorrectly; and/or
2. Modeling a negative mindset for their children when they talk about how much they loathe and cannot do the "new" math.

In a 2018 article titled "Just Teach My Kid the <adjective> Math," Dr. James Tanton states that "algorithms are the *definition* of mathematics for so many folk of the past. To not perform these procedures is to not do math." He continues by discussing that the "new" math threatens the use of procedural algorithms with which most parents feel very comfortable because those algorithms summarize most of their learning experiences—they have memories of a rote, step-by-step procedure, which looks nothing like their own children's experiences.

In writing our book *Adding Parents to the Equation: Understanding Your Child's Elementary School Math* (2019), we asked over 200 parents in an informal survey how they feel when their children come home with math today. We found that there were four words that were used most frequently: *intimidated*, *frustrated*, *worried*, and *confused* (Figure 1.1).

Figure 1.1 How Parents Feel About Today's Math

How Parents Feel	Explanation
Intimidated	Because their children are learning math in a totally different way, parents don't believe they can be helpful.
Frustrated	Parents feel unintelligent when unable to do "third-grade math homework."
Worried	Parents are anxious that their children will fail because of them.
Confused	Because parents rarely see anything familiar, math feels like a foreign language.

Source: Kreisberg, H., & Beyranevand, M. L. (2019). *Adding parents to the equation: Understanding your child's elementary school math.* Lanham, MD: Rowman & Littlefield. All rights reserved. Reprinted with permission.

In addition to feeling intimidated, frustrated, worried, and confused, parents also report feeling that reform is a threat to their intelligence and way of knowing. When parents hinder their children's conceptual development by teaching their children the way they learned or when they complain about the way math is taught today, what we really see is a defense mechanism. They are defensive against all of these uncomfortable feelings. They are defensive because they do not yet understand the way we teach math today (the *what*), or what the importance of conceptual understanding is (the *why*), and they aren't yet armed with the proper resources (the *how*).

When parents hinder their children's conceptual development by teaching their children the way they learned or when they complain about the way math is taught today, what we really see is a defense mechanism.

Parents talked about feeling intimidated because they don't understand the math enough to be helpful. They also described feeling frustrated because elementary math is suddenly beyond their grasp. In addition, parents reported feeling worried that their children would fail because of them. Lastly, parents stated they are confused and feel as if they are speaking a different language than their kids.

What Can We Learn?

This information is powerful. As we looked closer at what the parents were saying, we tried to identify similarities among the responses. If we rewrite some of these generalizations from a parent's perspective, it might look something like this:

- I am intimidated because I can't help my own kid.
- I am frustrated because I feel like my intelligence is under attack.
- I am worried that my child will fail at math because of me.
- I am confused because I didn't learn math this way and there are words, tools, and strategies I don't know.

What we came to realize is that all of these responses were about the parents themselves, not about the kids. Let's look again at these generalizations of a parent's perspective, this time highlighted.

- **I** am intimidated because I can't help **my** own kid.
- **I** am frustrated because I feel like **my** intelligence is under attack.
- **I** am worried that my child will fail at math because of **me**.
- **I** am confused because **I** didn't learn math this way and there are words, tools, and strategies **I don't know**.

It has been said that one's ego is indirectly proportional to one's level of knowledge. Albert Einstein said it best when he stated, "the more the knowledge, the lesser the ego; the lesser the knowledge, the more the ego." Right now, parents' egos are heightened because their knowledge is being threatened. They are feeling unintelligent and helpless. It's our job as educators to repair how they see and view *themselves* in relation to mathematics and give them the information and tools they need to be empowered as partners. Because, as much as this is about their children, it's really **about them**.

Let's go back to the parent responses and see if we can tell what the parents *didn't* say. When we read between the lines and rewrite those generalizations again, but this time focusing on what parents actually want, we are able to make sense of their needs differently.

- I want to be able to help my own kid.
- I want to feel intelligent, especially in front of my child.
- I want to feel confident that my child will succeed.
- I want to be able to talk with my child about the math they are learning.

At the end of the day, parents just want to feel **helpful**, **intelligent**, **confident**, and **familiar** with the language.

Figure 5.8

Example Weekly Letter, Second Grade

Dear Families,

This week your child will learn to add two numbers between 10 and 99 using a strategy called **partial sums**. Reminder: a **sum** in math is the total, or result, of adding numbers.

When using **partial sums**, break apart each number into smaller parts and then combine all the parts to find the total. This week, we will break apart the numbers by place value (tens and ones). In the future, your child might break apart the numbers differently.

How your child might talk about it:

45 + 56

I can break apart each number by place value: 45 = 40 + 5 and 56 = 50 + 6.

I can add the tens: 40 + 50 = 90

I can add the ones: 5 + 6 = 11

I can add the parts: 90 + 11 = 101

What it might look like mathematically:

$$\begin{array}{r} 45 = 40 + 5 \\ +\ 56 = 50 + 6 \\ \hline 101 = 90 + 11 \end{array}$$

At the end of the week, talk with your child about using **partial sums** to add by asking them to show you how to find the total for 39 + 57 using this strategy. If they struggle, ask these questions:

- Do you think the answer will be greater or less than 100? Why?
- How can you rewrite 39 as tens and ones?
- How can you rewrite 57 as tens and ones?
- What do you get when you add the tens and the tens? The ones and the ones?
- Can you draw your base-ten blocks to help you?

Why we are learning it this way:

Growing up, you may have added numbers like this:

$$\begin{array}{r} {\scriptstyle 1} \\ 45 \\ +\,56 \\ \hline 101 \end{array}$$

Your child will learn to add numbers like this in fourth grade.

We want to make sure they first understand how our number system works so that when they write it like this, they understand why they are doing the steps.

Look at how the way we are learning connects to the way they will learn it later:

$$\begin{array}{r} 45 = 40 + 5 \\ +\,56 = 50 + 6 \\ \hline 101 = 90 + 11 \end{array} \quad \longleftrightarrow \quad \begin{array}{r} {\scriptstyle 1} \\ 45 \\ +\,56 \\ \hline 101 \end{array}$$

Students add 5 + 6 and 40 + 50 + 10 in both methods, but writing out the numbers by their place values helps students understand *how much the numbers are worth*. This will help prevent mistakes later on when they get to fourth grade and learn a shorter method.

If you have any questions, please reach out!

Sincerely,

[Signed Teacher or Grade 2 Teachers]

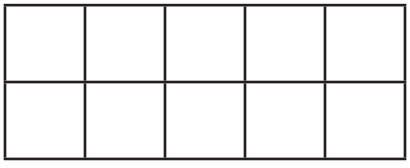
Figure 5.9

Example Weekly Letter, First Grade

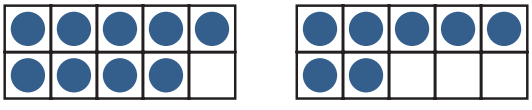
Dear Families,

This week your child will learn to add two numbers that result in 11 to 19 using a strategy called **make a ten**. Your child will learn this using a tool called a **ten-frame**.

This is a **ten-frame**. It has ten boxes formed by two rows of five. We use this tool to help students see groups of objects. This helps move them away from counting by ones.



When using **ten-frames**, your child will learn to draw a circle inside each box to represent the numbers being added (called **addends**). For example, 9 + 7 might be represented on the ten-frame like this:



9 + 7

When using **make a ten**, the goal is for one **addend** to become 10. To do this, we have to take some circles from one ten-frame and move them to the other. This week, we will focus on taking circles from the ten-frame on the right. Next week, we will take from the ten-frame on the left.

How your child might talk about it:

9 + 7

I can take 1 circle from the ten-frame with 7 and move it to the ten-frame with 9.

I now have 10 circles in one ten-frame and 6 circles in the other.

9 + 7 = 10 + 6

I can add the parts: 10 + 6 = 16

What it might look like mathematically:

9 + 7

9 + (1 + 6)

(9 + 1) + 6

10 + 6 = 16

At the end of the week, talk with your child about using **making a ten** to add by asking them to show you how to find the total for 8 + 6 using this strategy. If they struggle, ask these questions:

- Do you think the answer will be greater or less than 10? Why?
- What added to 8 gives you 10?
- Can you draw your ten-frames and circles to help you?

Why we are learning it this way:

Growing up, you may have learned to add 9 + 7 by simply memorizing the fact. Memorizing can be challenging for students and does not help them when they move on to more challenging math. By using the make a ten strategy for addition, students deepen their understanding of our place value system and the relationships between numbers. They will continue to use this strategy throughout their schooling by adjusting to make a multiple of ten when they are adding greater numbers at the end of first grade and throughout second grade and also adjusting to make a whole with measurement in third grade and fractions in fourth grade.

If you have any questions, please reach out!

Sincerely,

[Signed Teacher or Grade 1 Teachers]

TIP!

If you do not plan on sending home both unit preview letters *and* weekly letters, then consider how you could combine the two so parents get as much information as possible in their one correspondence.