



Reteaching Place Value in Tier 2

Cornell Elementary School, Iowa • January 2010

Topic: Response to Intervention in Elementary-Middle Math Practice: Foundations of Arithmetic

Highlights

- Interventionist Lorrie Lockin introduces Tier 2 math group.
- She describes the focus on number sense in daily interventions.
- Today's lesson is about understanding rounding to the nearest ten and is within a series of lessons on regrouping and place value.
- Students use a large number line to measure the distance to the closest ten with their arms.
- Lockin reteaches when she realizes students do not grasp the rounding concept.
- Each student approaches the practice problems using a different strategy.
- Lockin describes the benefits of the small group, including the ability to correct errors immediately.
- Lockin describes the relationship between the core math instruction and the content of the intervention.

About the Site

Cornell Elementary School Des Moines, IA



Demographics

87% White

9% Hispanic

2% Black

2% Other

50% Free or Reduced-Price Lunch

4% English Language Learners

8% Special Education

Response to Intervention (known in Iowa as Instructional Decision Making or IDM) has been evolving at Cornell Elementary School over the past 15 years under the leadership of Principal Deb Chiodo. The school has developed RtI practices over that time period with the assistance of the Heartland Area Education Agency and a regional technical assistance provider. Features of IDM (RtI) at Cornell include:

- A grade-level teaming structure led by the principal, and responsible for regular reviews of data, progress assessment, and planning interventions.
- Universal screening in reading and math followed by schoolwide data days.
- A variety of intervention structures, including differentiated instruction in the core classroom and small-group interventions.
- Implementation of Rtl in reading and math with positive behavior supports.

Full Transcript

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Welcome to Reteaching Place Value in Tier 2.

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My name is Lorrie Lockin, and this is my fourth year here at Cornell. I work with one Tier 2 math group and they are second graders, and I meet with them every day for half an hour a day. There are four students in the group.

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This whole first semester we have been focusing on just establishing number sense. We have spent many months working on tens and ones and we have moved into the hundreds, but we are back just working with tens and ones. Lots of manipulative work using the base-ten blocks, using dimes and pennies, trying to not



always use the same type of manipulatives so that they can start hopefully generalizing that a ten is a ten, no matter what it looks like—you know, bundling up crayons, bundling up pencils, so they are using a variety of things.

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Today's lesson was a reteaching lesson on regrouping. I tried to move them beyond the concrete to the abstract, where they just had a chart and they were trying to round to the nearest ten. I wanted to get them to see that they want to look at the tens place and they want to decide which ten is it closest to. Is it closest to the same group of ten or the next group of ten, next higher? And so I really wanted to get them into that thinking pattern. So I have my number I want to round, and I always have to compare two numbers, every single time. I can't just guess. I have to have those two thoughts in my head. And I was hoping that they could just think of those. But I found out very quickly that they had to use their little cards. They had to be able to physically put the cards in front of them and decide between those two cards. But I do want them to get that habit.

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We do use a number line quite a bit. And as this was a reteaching lesson, we had used that number line before. Any time that they can get up and move is something that they really like to do. So I think that's one of the reasons they had really enjoyed that lesson before, because they got to get out of their seats and find their place. And I think it really helped them to be able to see when they put their hands out, physically they could see, I am not very close to that number, and it really kind of cemented that into their heads. As the lesson was going on, I was thinking to myself, we really still need to focus on tens and ones, just that basic number concept. We have been doing a lot of addition, but we haven't been specifically talking about just looking at a single number and saying, which is in the ones place or what digit is in the tens place. These things need to be revisited more often than I had originally thought.

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I noticed that one of the students, she hadn't seemed very confident when we were working as the group, but then when she got her paper, she had her number line and she would just look at the number line and she would circle the correct group of ten without doing anything else on her paper. One of the other students, he would circle the number that was given and to decide to round, he drew an arrow to the one that he knew was the closest, and it would help him just to have that visual to see which was closer. One of the other students later told me she knew because she counted which was closest, just by counting. So even though we hadn't talked about using the arrow, we hadn't talked about the counting, they had figured that out or remembered from previous lessons.



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I am fortunate to have a small group. So I really can take the time to hear how the students are thinking and asking them lots of questions about how they knew their answer and also when they get the wrong answer to then say, "Why did you think this?" One thing that I also try to do is make sure that everybody has an answer in their head, and raise your hand, and then when I count to three, we will say it and see if everybody says the same answer. And if we don't, then we can talk about, well, try to decide which one of these is the right answer since everybody didn't think the same thing. Something else that I do is I will give them different problems. Right now, normally the lesson we are working on is we are trying to regroup addition; that's a very difficult skill. But it really forces them to have to think for themselves, and then we don't just talk about the answer. How did you get this answer? What did you do first? What did you do next? How did you know to do that? Why did you write this down? Why did you write this number here and this number here? So they are really having to think through what they are doing.

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One of the benefits of having a small group, again with these Tier 2 students, is that we can take the time to make sure that they are not practicing errors. I guess that's the best way to say it. I want to be watching them very carefully, and when they are discussing what they are doing or talking about why and how they came to an answer, if they do or they are going towards an error, I try to stop them and try to get them to rethink what they are doing.

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I do try to expand what they are doing in their classroom just in the fact that when they are in this large group, it's very easy for them not to do what they are asked to do. They just get lost in the shuffle. So I am wanting to use the same terminology. I am wanting to use the same basic materials so that they can make that connection in my room and then come back here and say, "It's the same thing." That is the hope that when they get back here they will say, "Oh yeah, this is the same thing." Because I am afraid that if it's too different they are not going to be able to make that connection between what's happening in the two different classrooms.

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To learn more about Reteaching Place Value in Tier 2, please explore the additional resources on the Doing What Works website.