



Welcome fellow Recovering Traditionalists to Episode 35. Today we are looking at the Features of Appropriate Math Tasks.

Welcome to Build Math Minds the podcast, where fidelity to your students is greater than fidelity to your textbook. I'm your host, Christina Tondevold, the recovering traditionalist and BuildMathMinds.com Founder, where my mission is to change the way we teach elementary math to our kiddos. Are you ready to start building math minds and not just creating calculators? Let's get started.

I am 35 episodes in and I cannot believe I haven't talked about this book yet! [Making Sense: Teaching and Learning Mathematics with Understanding by Hiebert et al](#) is one of those books that I have pink highlighter throughout the entire thing.

It was so hard to pick just one passage from this book to share with you today, so I'm sure I'll share more in future episodes. The whole book gives us a framework for thinking about math classrooms. They highlight 5 dimensions that work together to shape your math classroom, today we are going to look at the first dimension which is The Nature of the Learning Task through this passage from page 8:

"...tasks are viewed as opportunities to explore mathematics and come up with reasonable methods for solution.

Appropriate tasks have at least three features (Hiebert et al. 1996). First, the tasks make the subject problematic for students. We do not use this term to mean that students do not understand mathematics or that it is frustrating for them. Rather, problematic means that students see the task as an interesting problem. They see that there is something to find out, something to make sense of. Second, the tasks must connect with where students are. Students must be able to use the knowledge and skills they already have to begin developing a method for completing the task. Third, the tasks must engage students in thinking about important mathematics. That is, they must offer students the opportunity to reflect on important mathematical ideas, and to take something of mathematical value with them from the experience."

All three of these features are important, but that last line about taking something of mathematical value with them from the experience is a powerful one to think about. Later in the book they talk about this as the Mathematical Residue that is left over after the task. So, I'd like you to contemplate the tasks that you are providing during math time and what is the mathematical residue that is left behind? What big mathematical idea left an imprint?

If you want to learn more about the Nature of the Learning Task and the other 4 dimensions, go get the book [Making Sense](#). I'll link to it on the show notes page buildmathminds.com/35.

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