

Welcome fellow Recovering Traditionalists to Episode 43. Today we are taking a look at Open Middle Math.

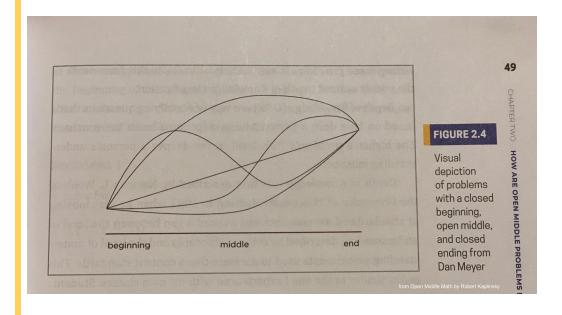
Welcome to Build Math Minds the podcast, where fidelity to your students is greater than fidelity to your textbook. I'm your host, Christina Tondevold, the recovering traditionalist and BuildMathMinds.com Founder, where my mission is to change the way we teach elementary math to our kiddos. Are you ready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

This week's book is from a friend of mine, Robert Kaplinsky. I've known Robert for years but I'm not sharing this book just because he is a friend. I only share things that I love and I love Open Middle.

While I've known Robert for years and I've known about and used Open Middle, I've never known the backstory of how they started. So to introduce you to Open Middle problems I thought I'd read a section from Robert's book, Open Middle Math, that gives the background of Open Middle problems. This comes from pages 48 & 49:

"My colleague Nanette Johnson and I were inspired to explore the idea of creating problems with open middles after watching Dan Meyer's presentation **Video Games and Making Math More Like Things Students Like** (2014). In his presentation, Dan talked about how math problems, like video games, have a beginning, a middle, and an end that can be open or closed.

Dan used the image in Figure 2.4 to illustrate how most video games have players start each level in the same place and win by completing the same goal. In this way, the beginning and ending are **closed** because they're the same for everyone.



What makes the games interesting to play is that there are often many paths you can take from the start to the finish. So, the middle is **open** because what happens between the beginning and ending is up to you. If you had to follow a tedious set of instructions to complete each level, the middle would also be closed, and the game would be much less interesting.

Similarly, most math problems begin with everyone having the same problem and working toward the same answer. As a result, the beginning and ending are closed. What varies is the middle. Sometimes a problem's instructions tell students to complete a problem using a specific method (a closed middle). Other times, there are many possible ways to solve the problem (an open middle). Problems with open middles tend to be much more interesting and lead to richer conversations. Dan's framing greatly intrigued Nanette and me, so we tried to make our own math problems, mostly with closed beginnings, open middles, and closed endings."

If you haven't seen Open Middle problems, go to OpenMiddle.com to see the tasks. They have them for all grade levels, Kinder through High School. What I love about this backstory of Open Middle Tasks is the reminder to let our students explore when doing math. That is the part that makes math fun!

Yes, all the kids have the same beginning (the task) and the same ending (the solution), but the middle (their solution path) can and SHOULD be different. All of our kids learn differently, so let them find their answers in their own way. The middle of a math task is the part where each kid's own understandings, or misunderstandings, come out. But if we are dictating what they do in the middle, all we see is their attempts at parroting back what we tell them to do instead of seeing what they are actually able to do. I also feel like this is the reason kids find math so boring...the middle is closed. When you open the middle up you get to see so much more of what your students know about math but you also make math more fun.

For those of you who are members of the Build Math Minds PD site, Robert did a session for the Virtual Math Summit and I'll link to that over on the show notes page buildmathminds.com/43. For everyone else and even Build Math Minds members, I'd like you to go check out the website OpenMiddle.com. This is the site that Robert runs and it has Open Middle tasks for all grade levels Kinder through High School.

If you work with 6th-12th grade then I highly recommend getting the book Open Middle Math as the examples throughout the book are for those grades. The book does include general information about Open Middle tasks and implementing them in your classroom that would be beneficial no matter what grade level you work with, but I'm going to link to some of Robert's blog posts about Open Middle that give some of the same information.

As always I'll link to everything over on the show notes page buildmathminds.com/43.

If you want more in-depth math professional development I'd love to have you come join me inside the Build Math Minds PD site. Enrollment opens only once a year to the public, but a little birdy told me that we might be opening up enrollment soon for people who are on the Build Math Minds waitlist. Since you give up your time each week to spend it with me here on the podcast I thought I'd give you the inside scoop. So head on over to buildmathminds.com/bmm to get details about the PD site and get yourself added to the waitlist.