

The Task is Not Enough: The Micro-Moves That Make Good Tasks Better

Make Math Moments Virtual Summit 2024

The Task is Not Enough

- Tasks are inert.
- We can make them better.
 - Focus on design.
 - Focus on the launch.
 - Focus on what happens when students are doing the task.
 - Focus on the closing. It's about converting meaning making into meaning made.

Slicing Into A Task

- When Peter sees a task, he often thinks "That's a really good task, but it's not the first task. It's the fifth or sixth task."
- Farmer John Task example:
 - How many legs does a cow have? How many legs does a duck have? We had 2 cows and 2 pigs. How many legs in total is that?
 - 3 ducks and 4 cows?
 - 5 cows and 6 ducks?
 - 20 legs and 1 cow, how many ducks?
 - This gives them an entry into the complexity.
- It's not the task that is a problem, it's how we set the students up to do the task.
- Slice your way into the task.

Slicing Out of A Task

- Nobody ever gets to be done.
- The progression helps students stay in flow.

Launch

- First impressions are important.
- Find a task that will get them thinking at just the right level. If you do that, they want to get going.
- Backing up the train
 - Back the train up far enough into the station that all our students can on the train.
 - Leave the station and keep everybody on the train.
 - When launching, think deeply about how to set it up so that everyone can get going on this task. Part of this is the design. Start simple enough so that everyone can get on the train. When picking the first task, a third of the students should think that the task is too easy. If this happens, then everyone is on the train. If no one thinks it's too easy, you've left a third of the students on the platform.
 - Also consider what you need to review. What vocabulary do you need to introduce? What model or visual do you want to give them? We're not trying to suck the thinking out here. We're trying to empower the students in such a way

that everybody has access to this task. The first one shouldn't be cryptic and challenging. They need success with the first one. The challenge is coming for everyone.

- Standing, Verbal, 5 Minutes
 - Teach kids procedures.
 - Text is a barrier.
 - When kids are younger, a launch can be even shorter than 5 minutes. It might be less than 60 seconds with little kids.
- Storytelling
 - Personalize and tell stories.
- Non-examples
 - Teacher examples are too good. When the examples are too good, the kids just mimic them.
 - Communicates what is expected but does it in such a way that doesn't suck the thinking out of the room.
 - Setting the bar low and kids feel confident that they can do better than that.
- Just in Case vs. Just in Time
 - Don't tell them everything just in case. Tell them just enough to do the first task.
 - We need to get kids into the swimming pool and they need to start swimming. While they're still standing on the deck we want to tell them how to do the butterfly. Instead we just need to get them into the pool and start blowing bubbles.

Body

- Just in Case vs. Just in Time
 - Working the room and providing kids with the next task or support just in time. This is actually called differentiation. Give them a challenge or hint as they need it.
- Banner (vertical vs horizontal)
 - The question goes in the banner. The work goes underneath.
 - They look to someone else's banner to find the next problem.
 - Some problems can't be put into the banner. So three piles can help manage this in a horizontal way.
- Managing the Bookends
 - There are only ever three tasks out at once. This prevents them from being overwhelmed or seeing the finish line. It keeps them in the moment.
 - If a group is beyond, personally give that group the task. If a group is behind, give them the task they need.
 - Allows students to stay present without being overwhelmed and without having to compromise the integrity of everyone else's experience just because there are some outliers going on.
 - What if they make a mistake? If they made a mistake on question 3, odds are high that they'll make a mistake later that you'll catch eventually. Mistakes that

persist without someone noticing are unusual. Students should not be waiting for us to check their work. Otherwise, they'll never get into flow.

- Bank
 - The bank is good if you want students to see a pattern. A bank goes down one side of the board.

Close

- Closing the lesson is becoming increasingly important. Spend a third of the lesson here. It's vital.
- Ideas are chaotic at the boards. They haven't come home to roost yet in structures students can hold on to and retain.
- Consolidation
 - Conversation - good for big ideas and general strategies
 - Students are fixated on answers. We want them to fixate on the process. When we write on the board all the time, they're looking for the product. Conversations can keep it in the process structure.
 - Teacher-Scribe - best for convergent tasks
 - Three questions on the board similar to the ones during the task but in the wrong order and students tell the order and why. Turn and talk happens first. 50% of what you want to happen in the lesson happens during this conversation.
 - Guided Gallery Walks - best for divergent tasks
 - Build the journey from simple, concrete, and common to complex, abstract, and uncommon.
 - Lift up and celebrate different ways of thinking and stitch together a narrative.
- Notes to Your Future Forgetful Self
 - Grades 4 and up (3rd grade is a transition year)
 - Draw four quadrants on a whiteboard.
 - Fill in the blank.
 - Solve an example.
 - Choose your own question.
 - Things to remember.
 - All students do this together at boards with as many markers as they want.
 - K-2: Top two quadrants
 - Grade 3: Start with two quadrants and move towards the four quadrants
 - Phase 1: Students do this work together at boards.
 - Phase 2: Eventually, students then write this work down and "shop" from the boards around the room for what they want to write.
- Check Your Understanding Questions
 - Mild, medium, and spicy: There are only three levels.
 - When there are three levels, every student wants to get to spicy. When there are four categories, 50% stop at medium.
 - Additional spicy problems can simply be added to the spicy category.

- We want this to be for everybody.
- Three rules:
 - Students do their own.
 - Students choose where they want to start and where they want to go.
 - Students check work with others and if they need help, get help.
- Teachers can look around and zero in on kids who you had suspicions weren't connecting the dots.