

## MATHEMATICAL THINKING IN A DIGITAL WORLD

*A discussion guide for instructional coaches and teachers to use with the DMT Insight and video on Digital Dependence.*

**How to use it.** Work the guiding question both times. Use the Before prompts before the reading or video, and the After prompts once your team has read or watched.

### THE GUIDING QUESTION

**In this lesson, what mathematical thinking do we want students to do, and is the digital tool helping them do it or doing it for them?**

#### COGNITION

*Any subject*

##### BEFORE

Think of a student who looked successful with a digital tool one day, then could not recall how to begin the next. What did the tool hold in memory that the student never had to?

##### AFTER

Recognizing an answer is not the same as recalling and rebuilding it from memory (Horvath). Where are your students recognizing this week when the learning they need comes from retrieving?

#### MATHEMATICS

*Math*

##### BEFORE

When your students work on place value or equivalent fractions, which models do they build by hand (bar model, number line, array), and which arrive on the screen already drawn?

##### AFTER

Pick one idea from your next unit, like multiplying by ten or comparing fractions. How will students see it on a bar model, a number line, and a ratio table before reaching for the standard procedure?

#### INSTRUCTION

*Any subject · math flavor*

##### BEFORE

In a lesson, what is the digital tool doing for your students that they could be doing in their heads or on paper, like organizing the steps, choosing a strategy, or setting up the model?

##### AFTER

What is one move you will try this week so students do the thinking the lesson is meant to teach, like setting up the problem or sketching the model first, and how will you know it is working?