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Please enjoy this complimentary excerpt from *Teaching Math at a Distance* by Theresa Wills.

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Mine, Yours, Ours

This is a more complex strategy that uses the classroom routine of carousels. In the face-to-face classroom, students would move in groups to different areas of the room, read the prompt or question on the sheet of chart paper located there, add a new piece of information, and continue to rotate. In the virtual classroom, students follow the same procedure, but they rotate around to the different available slides that they are collectively working on instead of actual sheets of chart paper.

It is important to first divide students into purposeful groups (I prefer three to four). Groups begin on their own slide (mine), then add to another group's slide (yours) until they return to their original slide with the contributions from all the other groups (ours). The strategy utilizes a space for each group to contribute as the choices within the slide become reduced. This provides more access as there is more choice in the beginning, while keeping students accountable for learning and contributing to the more difficult concepts.

Consider using Mine, Yours, Ours whenever students are making connections to an overall concept (e.g., five representations of a function, as shown in the vignette) while finding similarities and differences among unique situations (e.g., each problem).

Here, Ms. Miller used the Mine, Yours, Ours strategy with her Algebra 1 students to explore the five different representations of a function—real-life situation, pictures, graph, table, and symbolic function—in order to strengthen students' ability to solve problems and understand computations (Lesh et al., 2003).

Ms. Miller: Mine, Yours, Ours

Ms. Miller used the Mine, Yours, Ours strategy to create a space for students to record each of the representations of a function and had students rotate to each slide, adding one representation to each slide. Each slide used an identical format but included a different problem. Group A began on

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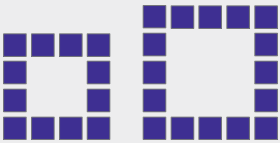
(Continued)

slide 1 and chose to insert a table, group B began on slide 2 and chose to insert a table, and group C began on slide 3 and inserted a story problem. Once a group finished their contribution, they rotated to the next slide. As group A moved to slide 2, they were disappointed that the table was already taken, but quickly chose the graph because the table was already done. When they moved to the third slide, they had only two choices left and chose the story problem. Finally when they rotated back to slide 1, their only choice was to complete the equation. Ms. Miller noticed that as students applied their understanding of these five representations to different functions, they had obvious favorites and struggled to connect the story problems. She used that information to focus her next lesson on contextual problem solving.

Slide 1

5 representations of a function

fig 2 **fig 3**



Write a real-world story problem here.

If you are making a house in Minecraft then you need to make the sides one box larger than the space you want inside. Don't forget the corners.

copy/paste a graph here. Use this manipulative: <https://nces.ed.gov/nceskids/createagraph/default.asp>

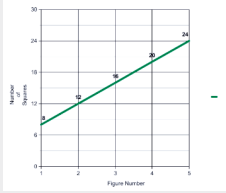



figure	# of squares
2	12
3	16
4	20
5	24

$$y = 4x + 4$$

Slide 2

5 representations of a function

fig 1 **fig 2** **fig 3**



Write a real-world story problem here.

When I was born, I got a christmas ornament. The next year my sister was born, and we both got an ornament. Every year we both get an ornament.

copy/paste a graph here. Use this manipulative: <https://nces.ed.gov/nceskids/createagraph/default.asp>

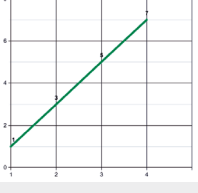



figure	# of squares
1	1
2	3
3	5
4	7

$$y = 2x + 1$$

Slide 3

5 representations of a function

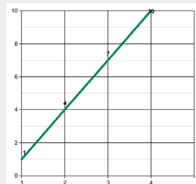
fig 1 fig 2 fig 3



Write a real-world story problem here.

Every year, I am able to play outside in a larger zone. When I was 5, I could only play in my yard. When I was 6, I could play at the house on both sides and in front of my house. When I was 7 I could ride my bike 2 houses in every direction.

copy/paste a graph here. Use this manipulative:
<https://nces.ed.gov/nceskids/createagraph/default.aspx>



$y = 3x + 1$

figure	# of squares
1	1
2	4
3	7
4	10

This vignette showcased the strategy in algebra, but it can be applied across other grades as well. Consider the multiple models for multiplication or visualizing fractions. No matter the concept, if it is important for students to use multiple representations, and not simply use the representation that they like the most, then all of the representations should be modeled together in a shared space so that students can visualize the similarities and differences between each model.