

Facilitation Guide

This guide provides an overview of common scenarios and questions that may arise during the implementation of the nudge, along with strategies to support its success.

MLR Nudge 5 Reversal

Recap

This nudge fosters doing and undoing and allows for multiple solutions to a single problem. It also increases accessibility by allowing students to create contexts that make sense to them.



Situation: When recreating a problem, you notice that a student created a problem that doesn't fully align with the original mathematical concept.

As you begin to use this activity with students, it might be helpful to model the first few reversals or complete them as a class. This gives you the chance to review the original problem and key mathematical concepts with students before asking them to reverse the problem.

As you use this practice more consistently, collect examples of completed reversals and have discussions with the class about why they work and their connections to the original problem. You can also have students review each other's reversal problems.

Situation: Students might not feel confident completing the problem under normal circumstances, so you don't feel as confident giving them a reversal problem.

Reversal problems offer a new way of thinking, which might take some time for students to get comfortable with.

Students might actually feel more at ease with these problems because reversals allow for more open-ended answers.

Recognize and celebrate small successes as students gain more practice with reversals, which can help build their confidence over time.



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Situation: What are good problems to reverse?

Any problems can be good to reverse! The key is to ensure that multiple answers are acceptable and not to look for just one correct answer.

Situation: A student finds it difficult to create a new problem from a given solution.

Start by allowing students to create reversals in pairs, giving them a thought partner. Modeling the first few reversals or completing them as a class can also be helpful.

This approach allows you to review the original problem and key mathematical concepts with students before they attempt to reverse the problem.

Continuing to use visual representations like number lines and drawings in conversations about the problems can also help students become more comfortable with the mathematics in the original problem.



Situation: A student reverses the problem but doesn't make it a story problem.

Think about and discuss the importance of creating a story problem to deepen student understanding of the mathematical concept.

This also might be a good time to reflect on the story problems students have encountered in mathematics class.



Does the context make sense for the problem?
Have you been using strategies to break down story problems for students?

The more comfortable students become with story problems, the more confident they might feel creating their own.