



## Suggested Strategies for Addressing Unproductive Struggle

**Lack of mathematical confidence** A student who lacks the ability to produce the desired result or perceives they lack the ability to do so, will be less likely to try when failure is certain. Does the student have a fixed mindset or in rare cases a significant learning disability?

Certainly Homework Help and the Checkpoint problems will support students that lack mathematical confidence, but you will also want to think about this question: Are there a variety of opportunities and methods for students to demonstrate their mathematical understanding? The first step to support students in demonstrating their mathematical understanding may be to have clear expectations about how they record their Review & Preview work in their Course Notebook. Once students are able to record their work and justify their reasoning in their Course Notebook, then you may want to provide them opportunities to share that work with their classmates. The following strategies are all good choices for having students share their reasoning: Ambassador, Pairs Check, and Peer Edit.

**Gaps in Understanding/Learning** Students who understand the bigger picture of the mathematics but have gaps in the skills necessary to complete the task, or students who possess discrete skills but do not understand how to put their skills to use, will struggle to progress.

In this case you will want to ask, Does the student need additional learning opportunities to fill in learning gaps? These opportunities may come from referring to and revising learning logs, but first you will want to provide students plenty of chances to see and hear how other students are thinking. In this case, choose strategies that require talking and writing such as: Think Ink Pair Share, Peer Edit, Reciprocal Teaching, and Pairs Checks.

In addition, you will need to be using Feedback Strategies that focus on team discussions of each student's problem solving methods. During these discussions, you will want to circulate to monitor, question, and stimulate quality conversations. Use Team Roles to manage these conversations and keep students engaged and on task.

**Cognitive delays in processing** Students who have the ability to engage with the mathematics but need more time and support, may struggle to keep up. (Can assignments be extended or modified to allow more time? Are there opportunities for extra help available?)

You will need Feedback Strategies that allow these students time to process their homework. You should also be aware of the structure of the Review & Preview problems. Students may struggle with the first few problems because they are new and learning is unfinished. Consider allowing these students to start at the bottom of the Review & Preview section and work backwards so that they can engage with problems that may be more familiar to them.

For these students it is crucial to provide think time on tasks. For that reason, consider using a Think Ink Pair Share when they are processing a problem so that they have time to think and check resources such as past assignments or Learning Logs in their Course Notebooks.

**Lack of motivation** Students may appear to be unmotivated when one or more of the root causes listed above apply to them. Additionally, a student's priorities may lead to lack of motivation in class. (What matters to this student? Is there a way to relate the problem to something he or she cares about, or allow them to use their talent/interest in a way that benefits the team?)



# CPM EDUCATIONAL PROGRAM

---

These students may need to understand the purpose of the Review & Preview. Teacher transparency about the Review & Preview problems, Homework Help, as well as the connection between the problems and their assessments using the Suggested Assessment Plan may support these students.

You may also need to ensure that these students are held accountable by using Team Roles and by using Strategies such as: Pairs Checks, Reciprocal Teaching, and Peer Edits where their work is being scrutinized by another student.

Excerpted from CPM's Statement about Learners who Sometimes Struggle.