5 Practices for Orchestrating Productive Mathematics Discussions

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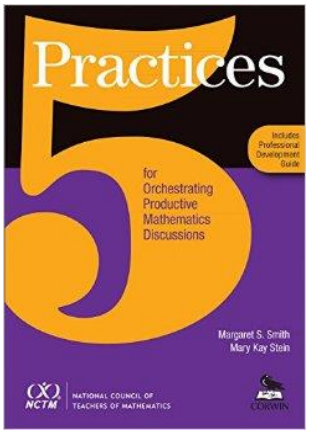
DESCRIPTION



5 Practices for Orchestrating Productive Mathematics Discussions by Margaret S. Smith and Mary Kay Stein provides teachers and coaches with strategies to facilitate meaningful discourse that promotes productive learning within the mathematics classroom. The 5 practices are:

1. Anticipating
2. Monitoring
3. Sequencing
4. Selecting
5. Connecting

In addition to being introduced to these 5 practices, readers will have the opportunity to learn how to set the groundwork through setting goals and selecting tasks. These starting points are discussed in depth to emphasize the importance of pre-planning before implementing any type of mathematical task. Throughout the book there are observational case studies that share the lesson implementation strategies that occur in the various classrooms. Teachers and coaches can read and consider the different techniques used in order to compare and contrast the successes and struggles of other educational professionals while underscoring the importance of implementing the 5 practices. In addition, there are "Try This!" sections at the end of the later chapters to promote practicing the use of the strategies discussed. Finally, in addition to the 5 practices, this resource incorporates two other best practices to deepen meaningful discourse. The first, called "Moves," deepens the last three practices, while the second, called the Thinking Through a Lesson Protocol (TTLP), scaffolds the planning process through a list of questions.

This resource is a quick read designed to help teachers slow down to think about what is being taught and how to teach it in a meaningful way. It provides a design to make mathematical conversations in a lesson follow a specific structure. This structure assists teachers to identify strategies students use when solving a problem, to observe students and guide them effectively, and to design group discussions that helps students reach teachers' instructional goals.

STAGE 2 LEADERSHIP

5 Practices for Orchestrating Productive Mathematics Discussions supports stage 2 development of leaders by providing guidance to coaches as they facilitate teachers in improving the discourse that occurs within their mathematics classrooms.

While teacher teams may find other resources that promote a similar focus, the layout used within this text is clear and easy to follow:

- Setting meaningful mathematical goals
- Selecting Tasks that will elicit the desired goals
- Implementing the 5 Practices to improve discussions
- Incorporating the "Moves" to deepen discussions
- Utilize the TTLP (or another planning guide) to steer the planning process.

Each chapter and the case studies embedded within build on one another. This allows coaches to focus discussions on the different instructional areas that may need improvement. The "Try This!" section provides direction for coaches in facilitating meaningful conversations to improve the lesson-designing process. Coaches can help teachers select tasks, solve the task on their own, and come up with a variety of solutions to anticipate what the students will come up with. They can help create monitoring sheets to identify the different strategies students use so that teachers can guide the classroom conversations toward the instructional goals of the lesson. Coaches can use this framework as a lens through which they observe teachers, monitor implementation of these strategies, and provide feedback with the goal of improving instructional practices in the facilitation of mathematical discourse.