
Orchestrating Classroom Discussions

Smith, M.; Hughes, E.; Engle, R. and Stein, M.K.

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DESCRIPTION

“Orchestrating Classroom Discussions,” by M. Smith, E. Hughes, R. Engle, and M. K. Stein, describes a model that hopes to increase the likelihood that the demands of high-level tasks will be maintained during instruction and that the key mathematical ideas to be learned will be emphasized. The five practices that comprise the model are:

1. Anticipating student responses to challenging mathematical tasks
2. Monitoring students’ work on and engagement with the tasks
3. Selecting particular students to present their mathematical work
4. Sequencing the student responses that will be displayed in a specific order
5. Connecting different students’ responses to key mathematical ideas

In the five practices model, much of the decision-making is accomplished during the planning phase of the lesson giving teachers control over what is likely to happen in a discussion and more time to make instructional decisions. Planning for the mathematical story line provides coherence to the discussion that takes place with the students. While not all student responses may be anticipated before the lesson begins, the selection, sequencing, and specific connections can be planned ahead of time. The five practices model gives teachers a roadmap they can follow before and during whole-class discussions to orchestrate discussions responsive to both students and the mathematics.

STAGE 1 LEADERSHIP DEVELOPMENT

“Orchestrating Classroom Discussions,” by M. Smith, E. Hughes, R. Engle, and M. K. Stein, supports stage 1 development of leaders working to develop and model knowledge about instructional strategies for improved student learning. Discussions that focus on cognitively challenging tasks promote conceptual understanding and give students opportunities to share ideas, clarify understandings, develop convincing arguments, develop a language for expressing mathematical ideas, and learn to see things from other perspectives. However, it is not easy to manage the classroom discussion to make sure the mathematical ideas at the heart of the lesson remain prominent. The five practices model described in the article provides a useful framework for planning the discussion and making it more manageable for the teacher. After reading the article and reflecting on the planning for the discussion of the “Bag of Marbles” task, choose a task that you might use with students and work through the five practices model to plan a productive classroom discussion.

STAGE 2 LEADERSHIP DEVELOPMENT

“Orchestrating Classroom Discussions,” by M. Smith, E. Hughes, R. Engle, and M. K. Stein, supports stage 2 leadership development of specialists seeking to develop the ability to collaborate in implementing research-informed best practices and the use of effective instructional planning and teaching strategies.

Specialists working with teachers use the “Bag of Marbles” task to introduce the session prior to participants reading the article. Teachers solve the task in as many ways as possible, working independently or with a partner. As the participants work on the task, the specialist will model the questioning described in the article. Then the specialist leads the teachers in discussing the student work samples and comparing their solutions to the samples in the article.

Using the “Tool for Monitoring Students’ Explorations,” the specialist facilitates an activity to sort participants’ solutions based on the strategies given. Display the “Sample of How the Monitoring Tool Could Be Used” and discuss how this sequence would lead the class discussion toward the goals for the lesson as stated in the article. Ask participants to draw connections between their solutions and the ones described. Finally, participants read the article, reflect on their experience as a learner, and discuss the value of this model for collaborative planning.