# Teaching Practices: Research and Equity

Quotes from Taking Action: Implementing Effective Mathematics Teaching Practices

## Module 1: Facilitating Discourse

| ***What does the research say about this practice?*** | ***How does this practice promote equitable instruction?*** |
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| Corner 1  A wide array of research over the past two decades has underscored the important connections between mathematics classroom discourse that focuses on reasoning and problem solving and positive student learning outcomes. (p. 175) | Corner 3  (A) discourse-based mathematics classroom provides stronger access for each and every student – those who have immediate ideas on ways to approach solving problems, those who need more time to grapple with ideas and develop a reasoned approach, as well as those who have faulty reasoning or misconception. (p. 177) |
| Corner 2  Another line of research on mathematics discourse has focused on the use of specific talk moves that teachers use to support students in learning productive ways of talking in mathematics classrooms. (p. 176) | Corner 4  Meaningful mathematics discourse has the potential to challenge spaces of marginality. (p. 177) |

## Module 2: Purposeful Questions

| ***What does the research say about this practice?*** | ***How does this practice promote equitable instruction?*** |
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| Corner 1  Questions are often seen as the main tools that teachers have to prompt and scaffold student learning in mathematics. (p. 113) | Corner 3  By eliciting and valuing the thinking of each and every student, teachers can work toward building identity and agency within students as capable individuals in learning and using mathematics to solve problems. (p. 116) |
| Corner 2  It is important to note that it is not just the asking of questions that makes the difference in student learning but rather the verbalization by students in response to the those questions. (p. 113) | Corner 4  Putting one’s mathematical ideas and strategies into public view for examination can put students in vulnerable positions as related to issues of power and status structure among students in the classroom. (p. 116) |

## Module 3: Elicit and Use Evidence of Student Thinking

| ***What does the research say about this practice?*** | ***How does this practice promote equitable instruction?*** |
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| Corner 1  Teachers who consistently elicit student thinking during a lesson are better able to meet their students’ learning needs by using that evidence to adapt their instruction. (p. 207) | Corner 3  Whose work gets selected and discussed during a lesson sends important messages to students about the solutions paths that are valued and valid. (p. 209) |
| Corner 2  Formative assessment is an essentially interactive process, in which the teacher can find out whether what has been taught has been learned and if not to do something about it. (p. 207) | Corner 4  Promoting a classroom culture in which mistakes or errors are viewed as important reasoning opportunities can encourage a wider range of students to engage in mathematical discussions with their peers and the teacher. (p. 209) |

Adapted from Smith, M. S., et al. (2017) *Taking Action: Implementing Effective Mathematics Teaching Practices,* p. 102, National Council of Teachers of Mathematics.