MATH 180® Implementation Professional Learning, Day 3: Data and Differentiation

LEARNING OUTCOMES

This professional learning is designed to help teachers:

- Understand how both the learning environment and classroom culture impact the differentiated mathematics classroom
- Interpret progress, performance, and assessment data of *MATH 180* students to inform instruction
- Use assessments, data, and instructional strategies to support the needs of all *MATH 180* learners

Instructor Agenda
***MATH 180* Implementation Professional Learning, Day 3: Data and Differentiation**

Opening (25 minutes)
The opening includes introductions, goals, an overview of the day, and pertinent logistical information.

Knowing Our Students (90 Minutes)
In order to meet student needs, teachers must first know whom they are teaching. Knowing the learners in a classroom can take many forms. During this segment of the day, participants engage in formative assessment by analyzing their own students' *mSpace* work. Participants will use a collaborative process to learn how to make best use of the scoring rubrics of *MATH 180.* Opportunities to discuss teaching decisions as a result of this work will occur throughout the session.

BREAK (15 minutes)

Identifying, Interpreting, and Using *MATH 180* Data (75 minutes)
Scholastic Central includes comprehensive class- and student-level data to monitor students' progress and performance in the program. Participants extend their understanding of the data available in Scholastic Central by identifying and interpreting their own classroom data and discussing ways to use the data to meet the needs of students.

LUNCH (60 minutes)

Creating a Differentiated Mathematics Classroom (60 minutes)
Differentiated instruction is a philosophy of teaching based on the belief that all learners are different and that all students are capable of learning. Taken together, these beliefs mandate that teachers differentiate instruction. To do this, a variety of components that contribute to a classroom environment supportive of all students must be addressed. Participants examine instructional strategies intentionally embedded in *MATH 180* that support a classroom culture encouraging students to develop reasoning strategies and build conceptual understanding of the mathematics they are learning.

BREAK (15 minutes)

Planning for Differentiated Instruction (60 minutes)
Although there are many tools and instructional strategies embedded in *MATH 180*, it is the teacher who makes effective use of these features to maximize impact on student learning. This culminating session provides time for participants to use the information gleaned from earlier sessions to develop a plan for how to meet students' needs.

Closing (20 minutes)
Participants take time to reflect on the experiences of the day and ways that these experiences will positively impact their classroom instruction.

Math Solutions Guiding Principles
Drawing upon academic work and our own classroom-grounded research and experience, Math Solutions has identified the following four instructional needs as absolutely essential to improving instruction and student outcomes:

- Robust Content Knowledge
- Understanding of How Students Learn
- Insight Into Individual Learners Through Formative Assessment
- Effective Instructional Strategies

These four instructional needs drive the design of all Math Solutions courses, consulting and coaching. We consider them our guiding principles and strive to ensure that all educators:

- Know the math they need to teach—know it deeply and flexibly enough to understand various solution paths and students' reasoning
- Understand the conditions necessary for learning, what they need to provide, and what students must make sense of for themselves

- Recognize each student's strengths and weaknesses, content knowledge, reasoning strategies, and misconceptions

Have the expertise to make math accessible for all students, to ask questions that reveal and build understanding, and help students make sense of and solve problems