Core Math Partnership
Building Mathematical Knowledge and High-Leverage Instruction for Student Success

Will students’ perceptions of their math classes reflect stronger use of high-leverage mathematics teaching practices over time?

Sample Items
Goals: My teacher tells us the purpose of what we are learning in math class.
Representations: In math class, we use pictures and diagrams to show how we solved math problems.
Discourse: My teacher asks me to explain my strategies for solving problems in math class.
Discourse: We get to work in pairs or small groups on math problems in math class.
Productive Struggle: In math class, we learn from our mistakes.
Productive Struggle: When the work is hard in math class, I keep trying.
Evidence: My teacher knows when we understand the math lesson and when we do not.
Evidence: My teacher asks me questions to be sure I am understanding the math we are learning.

Baseline Observations
Will teachers’ report stronger use of high-leverage mathematics teaching practices over time?

Sample Items
Goals: My students can tell others the purpose of what they are learning in math class.
Tasks: My students persevere in exploring and reasoning through math tasks.
Representations: I ask students to make math drawings or use other visual supports to explain and justify their reasoning.
Discourse: I engage students in whole-class discussions in which they must explain and justify their strategies for solving math problems.

Math Learning Goals*
Tasks to Reason & Problem Solve
Use & Connect Representations
Mathematical Discourse
Purposeful Questions
Fluency from Understanding
Productive Struggle*
Elicit and Use Evidence*

Timeline
Phase I
Summer 2014 & School Year 2014-2015
Mathematics Domains:
Number, Operations, and Algebraic Reasoning
High-Leverage Teaching Practices, Part 1

Phase II
Summer 2015 & School Year 2015-2016
Mathematics Domains:
Fractions, Ratios, and Proportional Relationships
High-Leverage Teaching Practices, Part 2

Phase III
Summer 2016 & School Year 2016-2017
Mathematics Domains:
Geometry and Measurement

Participants earn 13 university graduate credits.