

Quality Performance Assessment Network: Improving Math & Science Achievement

Project Abstract

The Sanborn Regional School District will partner with the Center for Collaborative Education (CCE), National Center for the Improvement of Educational Assessments (Center for Assessment), and Stanford University, to conduct state-wide and regional professional development institutes, annually for three years, on improving math and science achievement through the Quality Performance Assessments Network (QPA Network). Annually, the QPA Network will provide support to over 100 math and science teachers from across the state by providing professional development and tools for improving practice in creating, validating, administering, and scoring discipline-based performance assessments. The professional development will focus on three main aspects: (1) creating student-centered, valid performance assessments that are backwards designed from the newly released New Hampshire math and science competencies, (2) scoring these assessments reliably with peers teaching the same subjects in other schools, and (3) using the data from these assessments to inform instruction.

Participating district/school teams, with priority given to Title I Priority and Focus Schools, will be able to access a growing state-wide bank of validated math and science performance tasks that are aligned to the state competencies, and have the opportunity to contribute new validated tasks that emerge out of this professional development initiative. The intended outcomes are to (1) build capacity of participating math and science teachers to develop valid performance tasks, based on a student-centered learning instructional approach, that focus on higher order thinking skills, and (2) improve student engagement and understanding in math and science, leading to higher achievement.

This initiative will be based on a cohort model, that is, a set group of recruited and selected district/school teams will work together over the course of an entire summer and school year, meeting both state-wide and regionally. We will offer a K-8 cohort, a high school cohort, and a North Country cohort (for reasons of distance and geography). Title I Focus Schools and districts housing them will be specifically recruited and will receive first priority to enroll. Teachers in the new cohorts will attend a two-day summer institute. These cohorts will then be joined by math and science teachers from three past K-8 and high school cohorts to engage in two follow-up sessions on task validation and calibration scoring.

The partners will be guided by a state-wide QPA Policy Committee comprised of members of the New Hampshire Department of Education, CCE, Center for Assessment, Sanborn Regional School District, i3 innovation grantees, and other consultants – with Stanford University serving in an advisory capacity. CCE will provide the facilitation and administrative support for the Policy Committee, as well as take the lead around creating valid performance assessments. CFA will provide technical support in designing valid performance tasks and aligning them with the state's accountability system.

The Policy Committee will take great care to ensure the effectiveness of the program. Mid-way through the project, one focus group for each of the three cohorts will be conducted to obtain more in-depth qualitative feedback on how the work is progressing and the extent to which lessons from the institute are being applied in schools and classrooms. A fourth focus group for administrators will be held to collect formative data from participating principals and curriculum leaders and will assess. At the end of the year, a summative evaluation will be conducted through participant surveys and subsequent analysis.

