

P.S. 105 serves a high poverty community in Brooklyn, New York. The school is the largest elementary school in the city with population of 1,800 made up of 93% Chinese, 4 % Hispanic, 1% white and 2% multi-racial students. 57% of the students are English Language Learners and 35% are former English Language Learners. 100% of the students are eligible for a free or reduced lunch. P.S. 105 has a strong instructional leader and has maintained a strong partnership with Generation Ready since the 2000-2001 academic year. The initial focus of the consultancy work was literacy. During the 2010-2011 academic year, the consultancy work expanded to include mathematics, science, social studies and instructional technology. This is the fifth year of Generation Ready's math consultancy work at P.S. 105, and the focus has continued to be on teacher effectiveness and strengthening instructional practice. Key areas of the consultancy work is to develop teacher understandings of the key instructional shifts in mathematics required for implementation of the Common Core Learning Standards (CCLS), identifying and planning for the 'major work' in each grade level and developing of sustainable unit planning and whole school assessment structures.

Solution

The school leadership team and the consultant used both teacher observation and academic data to decide the focus of the mathematics professional development in order to broaden the standards of practice in math and to engage all students in a cognitively demanding curriculum that will engage students modeling, constructing or exploring the mathematical reasoning to arrive at a viable solution. The mathematics professional development goals were collaboratively decided to provide job-embedded professional development that supported teachers in:

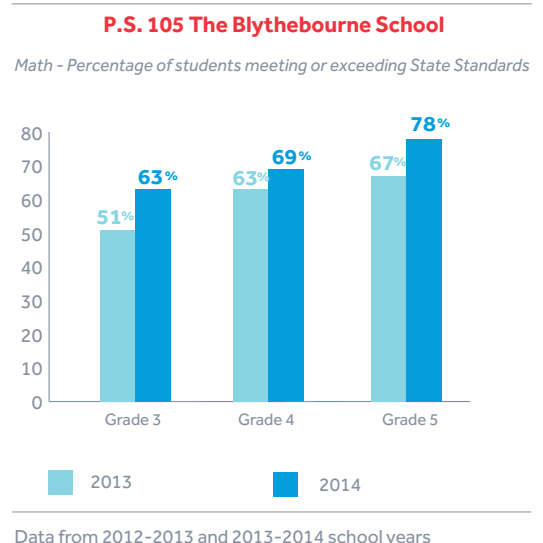
- Engaging all students in at least three culminating math tasks aligned to the major work of the Common Core Learning Standards. These tasks were embedded in Standards-aligned curriculum and differentiated for all learners, including students with disabilities and English Language Learners
- Engaging students in a cognitively demanding mathematics task that require them to demonstrate their ability to model with mathematics and/or construct and explore the reasoning behind arguments to arrive at a viable solution
- Supplementing the 'Investigations' math program by developing units of study for the major work of the grade
- Increasing the percentage of students performing at level 3 or above by 1%, from 80.1% to 81.1%, as measured by the April 2012 New York State Math Assessment

Results

The principal and her leadership team are committed to the ongoing professional development of the staff and as a result, worked very closely with Generation Ready's consultants supporting her school. The school received an "A" on the Progress Report and a "Well Developed" for the 2013-2014 Quality Review.

There is a consistent belief that was established around what constitutes effective teaching in mathematics and this point was commented on the Quality Review. The math consultant supported the development of units of study and both modeled for, and guided teachers as they strengthened their instructional practice.

In 2014, New York State administered the second year of Common Core-aligned state tests in mathematics. Of the 909 students in Grades 3, 4 and 5 that undertook the State Math assessment, 889 students did meet the promotion criteria with only 18 students that did not meet it. Of the 18 that did not, 1 student was exempt, 3 had multiple criteria, 8 had modifications and 6 had standard criteria.

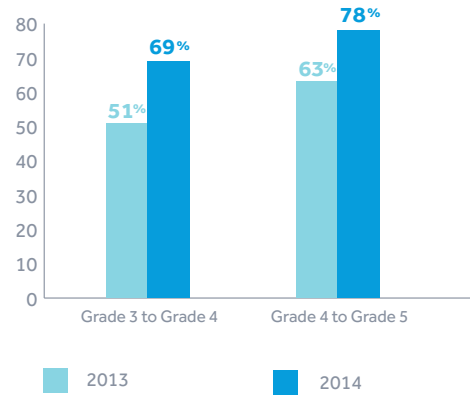


All students engaged in at least three rigorous CCLS math units of study that focused on the major work of the grade and mathematical practices. Units were developed using the Understanding by Design approach and the Universal Design for Learning Planning Framework.

All students engaged in cognitively demanding mathematical tasks that require them to demonstrate their ability to model with mathematics and/or construct and explore the reasoning behind arguments to arrive at a viable solution.

P.S. 105 The Blythebourne School

Math - Students meeting or exceeding State Standards



Cohort Comparison
Data from 2012-2013 and 2013-2014 school years