

## LEADERSHIP PROGRESS IN STAFFORD COUNTY SCHOOLS

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Stafford County Public Schools is the recipient of an ExxonMobil Leadership Grant, and introduced Mathematics Specialists in five of their elementary schools in Fall 2003 and in a sixth school in 2004. This article is a slight modification of a report on progress that appeared in the ExxonMobil newsletter, *Intersection*, in Fall 2004.

Important components of our Mathematics Specialist Program continue to provide opportunities for our Lead Teachers and Specialists to deepen their own understanding of mathematics, to increase their understanding of how children come to make sense of mathematics, and to further develop their own leadership skills. There are many ways to substantiate the positive impact that has resulted from the learning opportunities that the fifteen Stafford County Mathematics Specialists and Mathematics Lead Teachers have received as a result of our ExxonMobil Leadership Grants.

Has the grant-supported professional development for our Lead Teachers and Mathematics Specialists been an effective lever for improving student performance? It is not easy to make a direct correlation between staff development and student achievement. To add to this complexity, the Lead Teachers and Mathematics Specialists use their own learning to provide learning opportunities for the teachers in their buildings. We measure the broad strokes of our success by looking at the achievement of all students on the Virginia *Standards of Learning (SOL)* tests [1]. Over the past two years, we have seen a steady increase in student achievement on the *SOL* tests at grades 3 and 5. Not only have the overall pass rates increased, but the percentage of students passing advanced has also increased. Our six lowest socioeconomic schools, assigned a full-time Mathematics Specialist, are improving at a greater rate than the nine schools that do not have a full-time Specialist.

In the October 29, 2004 article in Fredericksburg's Free Lance-Star, Peter Vernimb, the Executive Director of Instruction in Stafford County, highlighted two schools—Rocky Run Elementary and Stafford Elementary. Rocky Run fifth graders had a 71% pass rate on the mathematics exam, an 11% jump from last year. At Stafford Elementary, 80% of fifth graders passed the mathematics exam, up from 60% last year. Vernimb said hiring Mathematics Specialists at those schools made the difference.

The additional learning opportunities in mathematics content, problem-centered learning, and mathematics pedagogy afforded our Mathematics Specialists and Mathematics Lead Teachers through the ExxonMobil Leadership Grant is reflected in the staff development and teacher support that these Teacher Leaders are facilitating in their schools. In 2003-2004, the Mathematics Specialists conducted an average of 65 hours of staff development and the Mathematics Lead Teachers conducted an average of 32 hours of staff development for staff and parents. In addition to the site-based staff development, these Teacher Leaders assist delivering divisionwide staff development opportunities.

We are moving strongly toward meeting our goal to build a critical mass of teachers who will be ready to adopt a reform curriculum during the textbook adoption process in 2004-2005. Due to the work of our Specialists and Lead Teachers, over 50% of our elementary teachers are currently using *Investigations in Number, Data, and Space* as a substantial part of their curriculum [2]. We have both special education teachers and gifted resource teachers who are proponents of this curriculum. One of our strongest advocates for the Program is a special education teacher who reported the following to me during an interview in May 2004.

My children don't know that they are different from the other students in my collaborative class when we are using *Investigations*; in fact, they often see things that other (regular ed.) students don't see when we are doing an investigation. They are more willing to take a risk and try something. My collaborative teacher was shocked at what some of my (special ed.) students came up with. She is even treating them differently now and calls on them just like everyone else. The kids feel better about themselves and are willing to try things more than before.

Moreover, I have heard similar comments from other teachers who realize that problem-centered learning focused on developing students' understanding, and mathematics proficiency has multiple entry points to meet the needs of our diverse learners.

A survey of administrators in June 2004 revealed that thirteen of the fifteen elementary school principals found the *Lenses on Learning (LOL)* class to be a highly beneficial learning opportunity while the remaining two administrators found the class to be somewhat beneficial [3].

Interviews with the Mathematics Specialists indicate that their principals came to them after each *LOL* class to discuss what they had learned and, on several occasions, the principals used staff meetings to share some of the video and mathematics with the entire staff. The exit cards from the *LOL* class informed me that principals without a Specialist came to realize the value of having a Specialist in the building to work with teachers in order to move the faculty to a more standards-based mathematics program.

Principals in buildings with a Specialist reported to Dr. Marie Sheckels in her study of Stafford's Specialist Program that placing a Mathematics Specialist in a building was one of the most cost effective moves the division has made. They also noted that Specialists were a necessary change agent to support teachers in transforming their practice and in improving student learning.

Our Mathematics Specialists are gaining great respect from teachers, administrators, and community members throughout the school division for their strong leadership skills, their exemplary professionalism, and their deep understanding of how children learn. Furthermore, they are being recognized for their ability to design and implement effective staff development opportunities in content, assessment, and instruction. In fact, they are being called upon by so many agents outside of mathematics that we are now having discussions about how to replicate the professional development model to prepare Teacher Leaders in the other core disciplines.

Stafford County is excited to be a part of Virginia Commonwealth University's National Science Foundation Teacher Professional Continuum research grant to study the impact of Mathematics Specialists on teaching and learning. Over the next four years, we will deploy Mathematics Specialists into six more of our elementary schools. Our long-range goal is to have a dedicated Mathematics Specialist in each of our elementary and middle schools. During the 2005-2006 school year, we will establish a Middle School Mathematics Task Force to define the Middle School Mathematics Specialist Program for Stafford County.

**References**

- [1] *Standards of Learning for Virginia Public Schools*, Board of Education, Commonwealth of Virginia, Richmond, VA, 1995.
- [2] *Investigations in Number, Data, and Space*, TERC, Cambridge, MA, 1998, Internet: <http://investigations.terc.edu>.
- [3] C.M. Grant, B.S. Nelson, E. Davidson, A. Sassi, A.S. Weinberg, and J. Bleiman, *Lenses on Learning: A New Focus on Mathematics and School Leadership*, Dale Seymour Publications, Parsippany, NJ, 2002.