

## DATA FROM THE FIELD ON TEACHER TO TEACHER'S SUPPLEMENTARY MATHEMATICS PROBLEM SOLVING CURRICULUM

### Sterling Park Elementary School

*I was searching for a program that would enhance my school's core math curriculum. I believed the FCAT math scores needed to be improved. I was looking for a way my teachers could develop an understanding on how to teach in a way their students could develop higher level thinking skills that were needed to raise the school's math scores. Making Sense of Problem Solving fulfilled all of these needs. Our math learning gains increased 22%.*

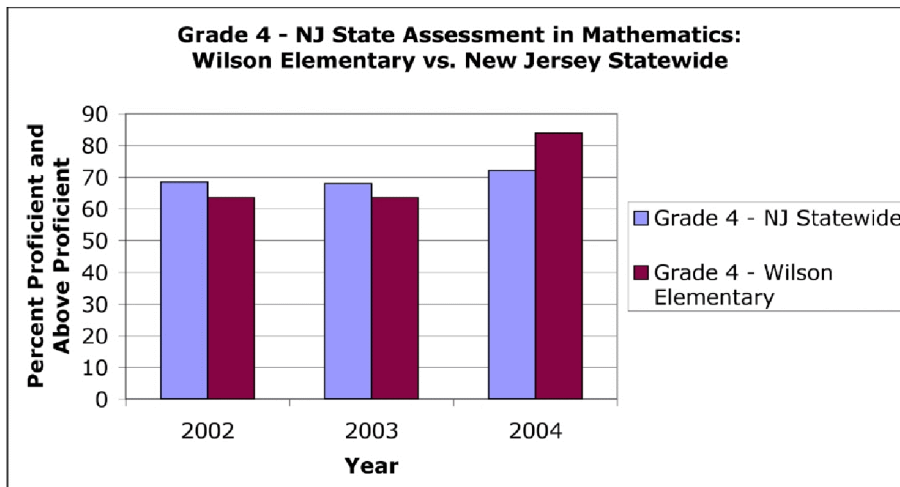
	% Meeting High Standards	% Making Learning Gains	% of Lowest 25% Making Learning Gains
2008-09	93	81	71
2007-08	86	59	61

Irene E. Kelleher, Principal  
Sterling Park Elementary School  
Seminole County Public Schools, FL

## Wilson Elementary School

Five teachers from Wilson School in Sayreville School District, New Jersey, participated in the large 2003-04 research study supervised by the Regional Research Institute at Portland State University.

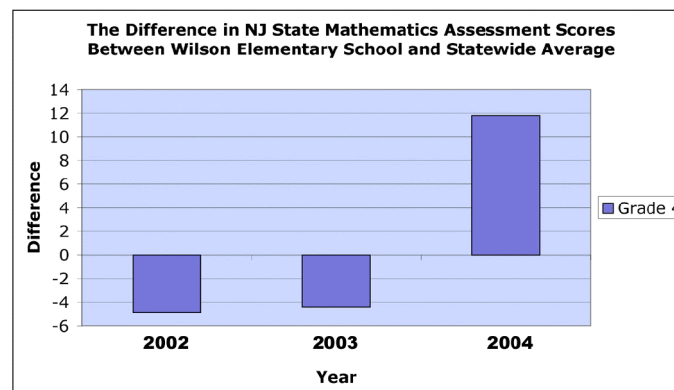
In 2004, the 4th grade ESPA was the only New Jersey State Assessment given to elementary students. The blue graph shows the difference between the Wilson School 4th scores for the two years before the intervention and the year of the intervention (2003-04). After that year, Wilson became a K-3 primary school.



Minority enrollment: 45%  
Free and Reduced Lunch: 36%

Teacher to Teacher  
program was implemented.

The difference in the Wilson Elementary School scores, compared to the Statewide Average scores, is clearly shown in the graph below.

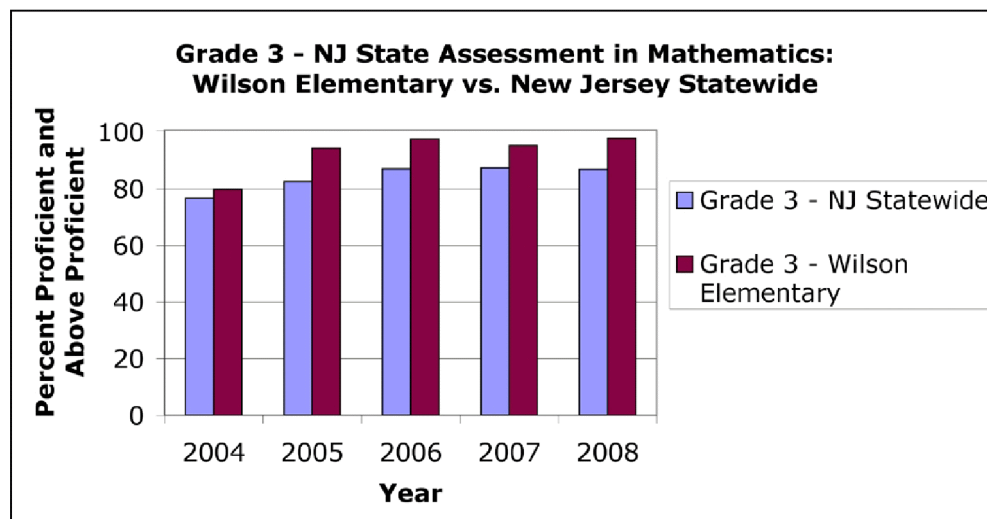


Teacher to Teacher  
program was implemented.

## Wilson Elementary School, continued

Wilson Elementary School has continued to use the Teacher to Teacher Mathematics Problem Solving Curriculum every year since the fall of 2003. Since Wilson School became a K-3 primary school in 2004-05, only Grade 3 scores are reported for those years. New Jersey state assessments were administered to third graders for the first time in 2004.

Wilson School's Grade 3 scores show steady progress over time. In 2008, 97.6% of 3rd graders scored at the Proficient or Above Proficient level, and 34.9% of those students reached "Above Proficient."



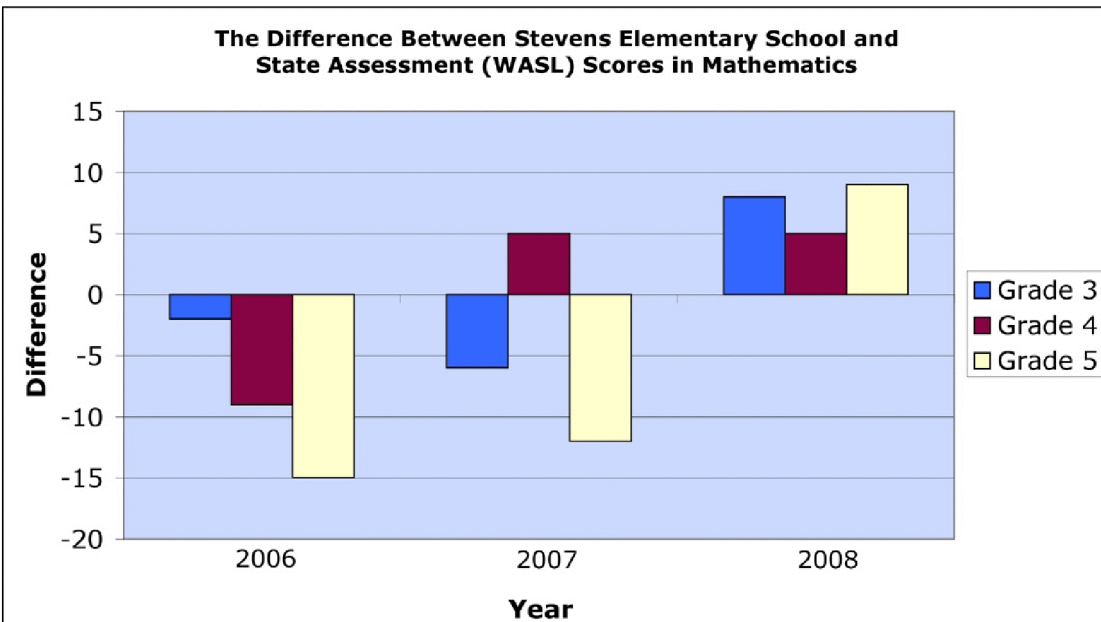
Comment from Mathematics Coach:

*This is what I have been looking for. I always wanted to get my students to think, but I just was not sure how to do it. The lessons really engaged the students in critical thinking and taught them to dissect an open ended question and evaluate answers. I really benefited from the questioning strategies. It really made me evaluate my questioning style and the way I taught problem solving lessons. I found your strategies to be much more effective. The hands on group work allowed all students to be successful.*

*I thought the whole program was excellent. It helped our students as well as our teachers. We all learned a great deal from the experience. I feel the in-services were an important part of the program. We loved the video. It really helped us to understand how to incorporate the different strategies into our lessons.*

Amy L. Haspel, Math Support Teacher  
Wilson Elementary School  
Sayreville School District, New Jersey

## Stevens Elementary School



Free and Reduced lunch: 91.7%  
Minority enrollment: 36.2%  
Approximately 250 students in grades 3-5

Implemented a Teacher to Teacher Math Problem Solving intervention group during 2007/08 school year in grades 3-5.

*The Teacher to Teacher (TTT) program has helped our students pass the State Assessment. I see a lot of improvement in students. Their confidence, attitude, and ability to solve problems is amazing. The growth they see in their own learning is wonderful.*

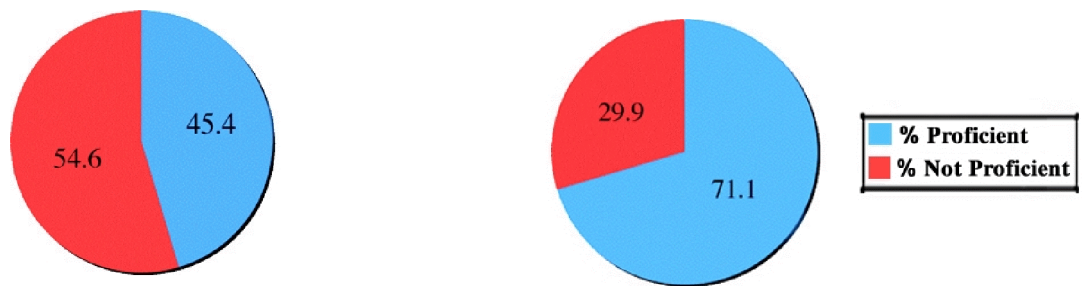
April Munyon, Math Coach  
Stevens Elementary School  
Spokane School District, Washington

## An Intervention Story

*We decided to use TTT's ...Making Sense of Problem Solving program in a tutorial for third and fourth grade students. The only curriculum we used in the math tutorial (8-lesson intervention) was TTT's...Making Sense of Problem Solving. Seventy-one percent of children who regularly attended the tutorial program scored at the proficient level, which I attribute to the TTT Program. The year before, only 45.45% of those 3<sup>rd</sup> graders had scored at the proficient level.*

-Janet M., NBCT Pre K-4 Math Coach in a Title I School, New Jersey

## **NJ State Assessment Scores for Students Who Participated in Intervention**



Student scores the previous year

Student scores after the intervention

*I highly recommend this program, as I have seen first-hand the improvement in NJASK scores that students attain when using TTT's ... Making Sense of Problem Solving, as well as the confidence students develop in discussing ideas and taking intellectual risks.*

*Many of our teachers said they had not previously used the methods recommended by the TTT program. Once teachers saw the effectiveness of the instructional strategies and student/teacher roles, they began implementing the program in their classrooms. Now all of our teachers are using this supplementary curriculum and we see an increase in strategic thinking and problem solving abilities across the grade levels.*

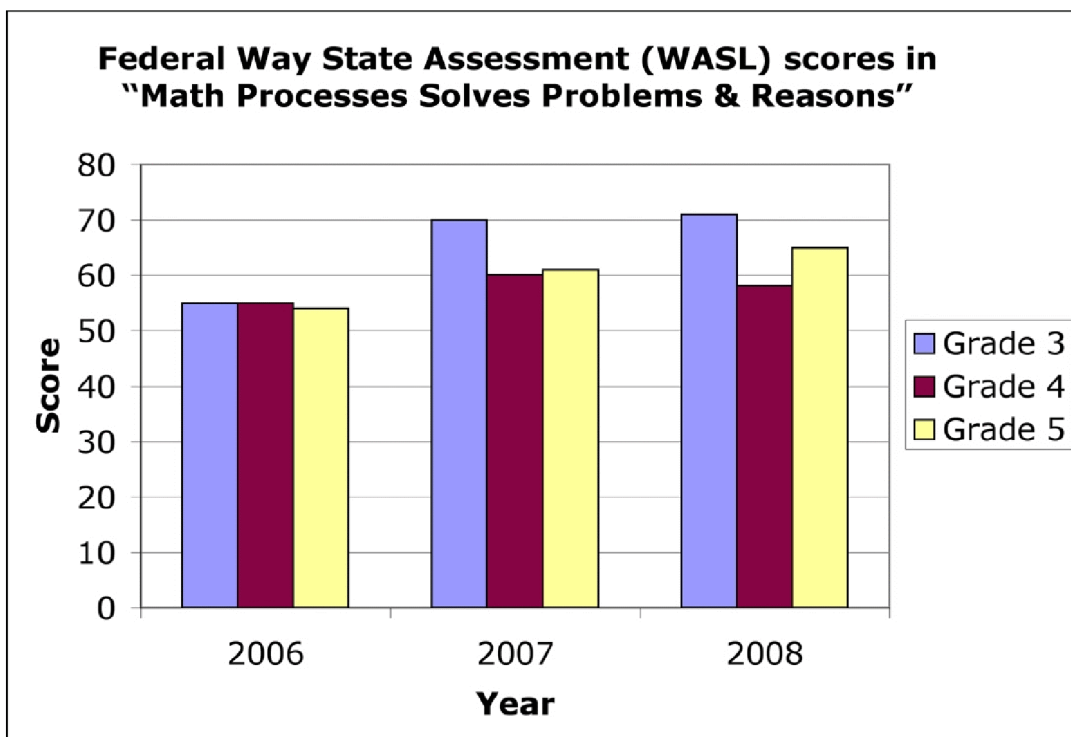
-Janet M., NBCT Pre K-4 Math Coach in a Title I School, New Jersey

## A District Plan for Implementing Teacher to Teacher's Program

*In 2008-09, we developed a curriculum map that also includes supplemental curriculum pages to fill in the gaps in our core math curriculum and put the Teacher to Teacher problems right in the main math block and made sure we allowed for time for the prompts to be taught.*

*In our curriculum map rewrites for 2009-10, we're actually saying that the first eight days of math for every grade level are to be entirely devoted to Teacher to Teacher's 'Developing a Problem Solving Environment' lessons. Our students are learning deep and important strategies in those lessons. It is not a quick fix; it's what's best for kids—actually encouraging thinking!*

Kim Prothero  
Title I Elementary Math Program Specialist  
Federal Way School District, Washington



Teacher to Teacher  
program was implemented.

Free and Reduced Lunch: 44%  
Special Education: 13%  
Bilingual: 12%  
Minority enrollment: 54%  
Total No. Students in Grades 3-5: 5,086