

## Robyn Silbey Professional Development Raising Teacher Quality and Student Achievement in Mathematics



School is in full swing! What are some of *your* goals for the year? Do they include problem solving strategies? Coaching strategies? If so, read on for ideas to think about!



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#### Problem Solving: Comprehension Check

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### Problem Solving: Comprehension Check

When you ask your students how they solved a problem, do they respond using only numbers? Challenge students to describe the solution process using the problem's context. This strategy encourages comprehension, vocabulary use, and algebraic thinking.



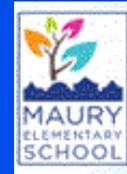
Example: After Miller gives 3 toy cars to Hector, he has 5 left. How many toy cars did Miller have to begin with?

Student response: "To solve, I'll add the number of toy cars Miller gives Hector to the cars that are left."

Would you like to hear more ideas about how to build comprehension in problem solving? See [Robyn's workshops on problem solving](#).

### The Math Coach: Demonstration Lessons

### Shout Out! Maury Elementary



This month at [Maury](#), teachers dug deep to connect big ideas in mathematics. From mental math strategies to strand connections, teachers explored and planned stimulating lessons for their students. Thanks to a strong administrator and an enlightened staff, math is compelling at Maury!

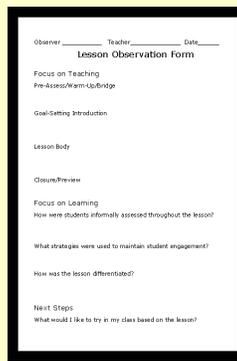
### Fraction Multiplication with Conceptua Math



[Conceptua Math](#) has new lessons on fraction multiplication. These lessons utilize tools and models that help students *think* about the true meanings of the factors and the product. Visit [Conceptua Math](#) or read [Robyn's blog](#) on the Conceptua Math website for more information.

New Leaders for  
New Schools

The October, 2011 issue of [Educational Leadership](#) focuses on coaching. The articles shed light on the job through different lenses, which underscores the complexity of the job. In her article (page 24), Katherine Casey says that demonstration lessons..."are a crucial part of coaching that can help schools build a common vision of effective instruction."



Observer \_\_\_\_\_ Teacher \_\_\_\_\_ Date \_\_\_\_\_  
**Lesson Observation Form**  
Focus on Teaching  
Pre-Asses/Warm-Up/Bridge  
Goal-Setting Introduction  
Lesson Body  
Closure/Review  
Focus on Learning  
How were students internally assessed throughout the lesson?  
What strategies were used to maintain student engagement?  
How was the lesson differentiated?  
Next Steps  
What would I like to try in my class based on the lesson?

To maximize the effectiveness of demonstration lessons, consider having teachers complete my [Lesson Observation Form](#) as the lesson unfolds. The open-ended questions provide teachers with the opportunity to analyze learning *and* teaching, and identify a self-selected professional development goal.

## Maximize Potential!



Let's work together to expose the elegance of math and raise student achievement! Send [Robyn](#) an email at [rsilbey@hotmail.com](mailto:rsilbey@hotmail.com) or call 301-802-5285.



The Fall Foundations Seminar for [New Leaders for New Schools](#) is October 21 in Washington, DC. The math focus this time is Response to Intervention and new strategies for Differentiating Instruction.