Teaching Students How to Be Intentional When Choosing Solution Strategies

June 27, 2018
8:30 a.m.–12:00 p.m.

St Johns County School District

8:30 a.m.	Welcome, Introductions, and Objectives The goals for this bridge event are to: • Expose teachers to rich problem-solving tasks that highlight the need for students to recognize and generate strategies for solving problems. • Help teachers learn how to teach students to evaluate and compare different strategies for solving problems. • Model for teachers how to monitor and reflect on the problem-solving process to articulate reasoning behind strategy choice and identify which strategy presented the most efficient means of obtaining the solution. • Discuss student misconceptions and overgeneralizations and how they impede student learning. • Provide teachers with a listing of resources supported by the What Works Clearinghouse and the National Council for the Teachers of Mathematics.	Mary Jo Taylor, Ph.D. Senior Research Associate Instructional Research Group

REL SOUTHEAST
Regional Educational Laboratory at Florida State University

8:35 a.m.	Research in the Area of Problem Solving and Introduction to the Practice Guide on Problem Solving • Give participants practice in multiple strategies in a way that will allow them to compare the efficiency of solution strategies and the importance of students being able to articulate the reasoning behind their methods. • Overview of *Research Evidence on Multiple* Strategy Instruction and Problem Solving (Improving Mathematical Problem Solving).	Tim Jacobbe, Ph.D. Associate Professor of Mathematics and Statistics Education University of Florida
9:00 a.m.	In-depth Examination of Recommendation 3 of the Algebra Practice Guide • Highlight the importance of recommendation 3 from *the Algebra Practice Guide*. • Discuss various problems and how some problems have solution methods that are more efficient than others (e.g., using visuals, guessing and checking, etc.).	Tim Jacobbe, Ph.D.
10:00 a.m.	Simplifying Problems • Present a process for simplifying a problem in order to make it accessible to all students.	Tim Jacobbe, Ph.D.

11:00 a.m.	Intentionally Choosing Strategies • Emphasize the importance of intentionally choosing strategies when solving problems. • Contrast "key word" approaches with problem-solving that highlights how students need to learn to reason through problems rather than memorize "key words" that will "expire" depending on the problem type.	Tim Jacobbe, Ph.D.
11:55 a.m.	Wrap Up and Stakeholder Feedback	Mary Jo Taylor, Ph.D.