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REGIONAL EDUCATIONAL LABORATORY SOUTHEAST
AT FLORIDA STATE UNIVERSITY

# Research Based Fractions Instruction (Decimals and Percents)

**Thursday, May 21, 2015**
**10:00 AM – 3:00 PM EST**

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| 10:00 – 10:05 AM | **Welcome, Introductions & Objectives:**<br>The goals for this bridge event are to:<br>1. develop a working knowledge of the evidence supporting the instructional practices rational numbers linked to the IES Practice Guide, the RtI Math Practice Guide and the Georgia standards;<br>2. share intervention techniques and strategies for students struggling with essential mathematical ideas related to rational numbers, specifically decimals and percents. | Sandi Woodall<br>Georgia Department of Education<br><br>Mary Jo Taylor, Ed.D.<br>REL Southeast |
| 10:05 – 10:30 AM | **Research in the Area of Fractions and Introduction to the Practice Guide on Fractions**<br>1. Explain purpose of session which is to demonstrate how to effectively teach students concepts related to rational numbers including those who require additional assistance (intervention) in learning mathematics:<br>2. Overview of Research Evidence on Fractions Instruction and Intervention Research (Math Fractions and RtI Math Practice Guides) | Russell Gersten, Ph.D.<br>REL Southeast |
| 10:30 AM – 12:00 PM | **In-depth Examination of Recommendations 2 & 3 of the IES Fractions Practice Guide emphasis on decimals and percents**<br>1. Analyzing student thinking about comparing fractions<br>2. Modeling decimals with base ten (from whole numbers to decimals)<br>3. Comparing decimals (what is tough, what makes this hard for students, trying to model the comparison, choosing numerical examples<br>4. Analyzing student thinking connecting decimals and fractions and revisiting the number line. | Meghan Shaughnessy, Ph.D.<br>University of Michigan<br><br>Tim Boerst, Ph.D.<br>University of Michigan |

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| 12:00 – 1:00 PM | **Lunch** | |
| 1:00 – 2:00 PM | **In-depth Examination of Recommendations 2 & 3 of the IES Fractions Practice Guide**<br>1. Discussing common student errors when computing with decimals (+,-, and multiplication decimals);<br>2. Modeling computation with decimals (multiplication) | Meghan Shaughnessy, Ph.D.<br>University of Michigan<br>Tim Boerst, Ph.D.<br>University of Michigan |
| 2:00 – 2:25 PM | **Fractions Interventions**<br>1. Present CRA intervention ideas for improving computation of rational numbers with students who struggle with basic number sense.<br>2. Give time for participants to participate in instruction and intervention ideas that can immediately apply to students in their classes. | Bradley Witzel, Ph.D.<br>Winthrop University |
| 2:25 – 2:55 PM | **Language of Rational Numbers**<br>1. Model the use of arrays to show how early knowledge of place value can prepare accurate work with rational numbers;<br>2. Give time for participants to practice problems using the array models to show the progression through standards. | Bradley Witzel, Ph.D.<br>Winthrop University |
| 2:55 – 3:00 PM | **Wrap Up and Evaluations** | Mary Jo Taylor, Ed.D. |