Guiding Instruction Using Assessment
AGENDA

How do we make assessment informative and manageable for guiding instruction
Our Focus will be on 5 Fundamentals

❖ 1. Mastery must focus on fluency
❖ 2. Fluency develops in three phases
❖ 3. Foundational facts must precede derived facts
❖ 4. Timed tests do not assess fluency
❖ 5. Students need substantial and enjoyable practice
1. Mastery Must Focus on Fluency

Selecting appropriate strategies and having flexibility with all basic facts.

- 20-3.  20-18
- 23+5.  23+15
- 6×10.  6×9
- 4×8.  5×8
The first step is to select an observation tool that fits what you are trying to assess.

❖ Which set(s) of facts or strategies are you assessing?

❖ Which Components of fluency are you addressing?

❖ Are you assessing automaticity/mastery?
2. Fluency Develops in 3 Phases

❖ 1. Counting

❖ 2. Deriving

❖ 3. Mastery
Phase 1 - Counting

❖ Is the student counting/skip counting?

❖ For what types of problems is the student counting/skip counting?
Phase 2 - Deriving

❖ Does the student know the foundational facts?
❖ Is the student able to use derived fact strategy?
❖ Is the student choosing an efficient strategy for the problem at hand?
❖ Which derived fact strategies is the student using, and for which problem types?
Phase 3 - Mastery
❖ Is the student able to implement a particular strategy efficiently?
❖ For which facts is the student producing correct responses within three seconds? (Which facts/fact sets need more instruction or practice?)
Foundational Facts Must Precede Derived Facts

❖ Addition
  o +/- 0, 1, 2
  o Doubles
  o Combinations of 10
  o 10+
Continued:

❖ Multiplication
  o 2s, 10s, and 5s
  o 1s and 0s
  o Squares
4. What to do instead of timed tests

❖ Observations
❖ Interviews
❖ Journal Writing
❖ Strategy quizzes
❖ Self assessment
5. Students need substantial and enjoyable practice

❖ Games from Jenny Bay Williams Math Fact Fluency
   http://kcm.nku.edu/mathfactfluency/

❖ KCM Virtual Resources
   https://sites.google.com/view/kcm-virtual-settings/home
Thank you for joining me. Have a great evening

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