CCSS Fraction Module 5: Building Background Knowledge of the Conceptual Focus for Fractions Instruction by Grade Level

Facilitator’s Notes

Goal:
To clearly articulate the conceptual expectations for fraction instruction across the grade span.

Distribute to Participants:

- Common Core State Standards for Mathematics
  - Gr. 3 [http://www.corestandards.org/Math/Content/3/NF](http://www.corestandards.org/Math/Content/3/NF)
  - Gr. 4 [http://www.corestandards.org/Math/Content/4/NF](http://www.corestandards.org/Math/Content/4/NF)
  - Gr. 5 [http://www.corestandards.org/Math/Content/5/NF](http://www.corestandards.org/Math/Content/5/NF)
- Building Background Knowledge Grade Level Charts
- R. M. Gagne’s Three Levels of Instruction handout

Supplementary Materials:

- Personal Action Plan Template handout
  - An optional template that can be distributed to each participant to facilitate personal reflection and planning with respect to fraction instruction based on the CCSS. It can be used as a supplementary closing activity for each of the six CCSS Fraction Modules. There are two versions of the template.
    - Initial Template – to be used after a participant completes his/her first module
    - Follow-Up Template – to be used after each subsequent module completed by a participant

Directions:

1. Distribute the appropriate Building Background Grade Level Charts and ask participants to have their copies of the CCSS for Mathematics at the ready.
2. Using the CCSS resource, ask participants to independently identify the expectations for fraction instruction at their grade level. Direct them to record their responses on the chart.
3. Draw participants’ attention to the footnotes in the standards. Explain that they serve as an important source of information.
4. Arrange participants into grade level groups to debrief the key ideas they identified as a result of their investigations. Suggest that their conversation should put particular emphasis on the connections between the use of visual representations and the conceptual understanding of fractions.
5. Provide each grade level group time to report out their findings to the group at large.
6. Distribute the handout outlining Gagne and Briggs’ Three Levels of Instruction. Ask participants to review the instructional levels and to determine at what level of instruction they should be teaching the standards in their fraction units. Instruct participants to code their charts with the symbols:
   - D= Developmental
   - R= Reinforcement
   - DP=Drill and Practice.

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7. Encourage participants to compare their current instructional focus with what is now called for by the CCSS by considering this question:
   • What is the same and what is different about the expectations for fractions at your grade level?
8. Solicit responses from each grade level and record them on a prepared chart similar to the one below:

<table>
<thead>
<tr>
<th>Grade 3</th>
<th>Grade 4</th>
<th>Grade 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the same about the expectations for fractions at your grade level?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What is different?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Activities and Tools to Extend Your Study:

Classroom Connection:
There is an expectation that the concept of fraction equivalence will be taught at grades 3, 4, and 5. Create triads of teachers, with a representative from each grade level, and direct teams to design an instructional activity that can be used to teach fraction equivalence at each grade level. During whole group debriefing, each triad should be prepared to discuss how they developed their selected concept through the activity in terms of:
• Rigor
• Visual representation
• Number ranges