Analyzing the Data

Making Sense of the CGI Assessment Data

This work is licensed under the Creative Commons Attribution-NonCommercial 4.0 International License. To view a copy of this license, visit http://creativecommons.org/licenses/by-nc/4.0/.
What do I want to find out?

• Class performance
  – How accurate students were on each problem? Is there one problem type that is more difficult than others?
  – What strategies are students using accurately?
  – What strategies tend to be less accurate?

• Individual student performance
  – Did students use similar strategies across problems? (Eg. always modeled)
Accuracy

• First, let’s look at accuracy.
• We might notice that accuracy for this class is not very high in general.
• Also, the rate of accuracy is fairly similar across problems (some did not finish division – this may have increased the percent accurate).
• This does not offer much insight for instructional next steps… now what?
Looking at the strategies used by students may give us more insight. I notice...

- Very few students direct modeled the JCU problem situation
- 35% of student used a counting strategy (appropriate for third grade – see CCSS Strategy Recommendations)
- Very few students used invented algorithms (appropriate for third grade, more sophisticated understanding than counting strategies)
- Almost 30% of students did not have a valid strategy for approaching the problem
This makes me wonder…

- Which strategies are most accurate?
- Who are my direct modelers?
- Who did not use a valid strategy for this problem?
Valid Strategy, but Inaccurate?

• Students may fall into any of these categories on a given problem:
  – Valid strategy and accurate
  – Valid strategy, but inaccurate
  – Invalid strategies and inaccurate

• You may find a discrepancy between the percent of students using valid strategies and the percent accurate. Some students who have a valid strategy may be unable to carry it out accurately for any number of reasons (organization, stamina, counting errors, computation errors)

• A closer look at the notes will help us understand these nuances more clearly
What do the notes say?

• You might look closely at direct modelers – are they accurate? Why might they be inaccurate – materials and organization or counting errors?
• What about the students using counting strategies – are they able to navigate the number sequence confidently? What tools do they use to keep track of the count?
• Do students use invented algorithms? What evidence of place value understanding is evident in these strategies?
• Are student using the standard algorithm? Did they demonstrate conceptual understanding of the procedure?
Suggestions for Analyzing Your Students’ CGI Data

• Look at accuracy and strategy use
• Notice which students did not use a valid strategy
• Notice which students did use a valid strategy and whether they were accurate
• Use the CCSS Strategy Recommendations document to gauge the sophistication of strategies that students in your grade level should be using

Framing question: What understandings do my students already have that we can build on?