A Protocol for Using Instructional Data Warehouse “Curriculum Analysis” Tools to Improve Instruction
Protocols Are Not New to the IDW

Newsletters written by Fred Cohen, IDW Consultant

- The ChAP Report Updated - A Convenient Tool for the Opening of School: August 2012
- The Teacher Interface - A New User for an Old Tool: September 2012
- An Updated Protocol For Navigating the IDW Part I (of III): November 2012
- An Updated Protocol For Navigating the IDW Part II (of III): December 2012
- An Updated Protocol For Navigating the IDW Part III (of III): January 2013
- New College Tracking Reports Now Available in the IDW, March 2013
- The Instructional Data Warehouse and SLOs, April 2013 with the Excel Tool to Calculate Multiple SLO HEDI Scores
- Compiling and Reporting SLO Scores: April 2013 with the Excel Tool for Compiling and Reporting SLO HEDI Scores
- Compiling and Reporting SLO Scores - Additional Solutions, May 2013 with the SED BOCES Enhanced SLO Calculator Tool
Concept of Triangulation
Triangulate (gather *evidence*) in the IDW to identify areas of *instructional strength and weakness*.

- Snapshot Reports
- Subgroup Analysis Reports
- Performance Level Comparison Reports
- Regents Summary for Elective Exams
- Trends Reports

*Note: All these reports and the following discussion are available for all New York State tests—grade three through eight assessments and Regents exams.*
Triangulate again to gather specific evidence to create improved teaching strategies.

- The Item Map, Gap Report, Released Question Gap Report, and WASA Report, each offer unique insights. Triangulate to get a clearer picture of teaching/learning strengths and weaknesses.
- Similarly, “deconstructing the test” with staff and disaggregate data at the school and teacher level to add insight and identify successful strategies for the future.
First, find evidence for instructional strength and weaknesses.
Once a test area has been identified, “triangulate” these data sources to create an instructional plan.

- Gap Reports
- Gap Reports for Released Questions
- Item Maps (best obtained from the “Common Data Views” folder for NYS 3-8 assessments)
- WASA Reports (Regents Exams)
- WASA Reports for Released Questions (Grade 3-8 NYS assessments)

As part of the process, “deconstruct the test”—discuss with teachers the unique interaction between your students and the test questions.
Let’s imagine that ELA 4 is identified as an area of weakness needing attention.

- **Begin** the analysis with a report that offers an ideal combination of the State’s Item Map and the Gap Report.

- Use the “Common Data Views” folder, and select “Performance Report with Gap Analysis.” Choose either district, school, or teacher report for the particular assessment identified.
# Performance Report with Gap Analysis by District

## District Name:
School Year: 2016

<table>
<thead>
<tr>
<th>Test: Grade 4 ELA</th>
<th>District n=490</th>
<th>Nassau n=9,154</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>% Points Earned</td>
<td>% CR Full Credit</td>
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### Strand: Reading-Literature

#### Cluster: Key Ideas and Details

- **RL.4.1** Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.
  - 01-MC: 47% 63% -15%
  - 02-MC: 43% 56% -13%
  - 05-MC: 61% 71% -10%
  - 27-MC: 39% 47% -8%
  - 28-MC: 29% 44% -15%

- **RL.4.2** Determine a theme of a story, drama, or poem from details in the text; summarize the text.
  - 04-MC: 50% 62% -12%
  - 31-MC: 63% 73% -10%
  - 35-CR: 53% 59% -6%

- **RL.4.3** Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character’s thoughts, words, or actions).
  - 08-MC: 65% 72% -7%
  - 30-MC: 57% 71% -14%
  - 36-CR: 50% 63% -12%

#### Cluster: Craft and Structure

- **RL.4.4** Determine the meaning of words and phrases as they are used in a text, including those that allude to significant characters found in mythology, folk and fantasy lore.
  - 26-MC: 30% 43% -13%

- **RL.4.5** Explain major differences between poems, drama, and prose, and refer to the structural elements of poems (e.g., rhyme, rhythm, meter) and drama (e.g., casts of characters, settings, descriptions, dialogue, stage directions) when writing or speaking about a text.
  - 25-MC: 62% 74% -12%
  - 34-MC: 46% 56% -10%

### Strand: Reading-Informational Text

#### Cluster: Key Ideas and Details

- **RI.4.1** Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.
  - 15-MC: 40% 64% -18%
  - 37-CR: 75% 81% -5%
  - 39-CR: 61% 67% -5%

- **RI.4.2** Determine the main idea of a text and explain how it is supported by key details; summarize the text.
  - 22-MC: 37% 46% -9%
  - 23-MC: 63% 66% -7%
In this case (and many others), the item map appropriately identifies an area of weakness, but a lack of specificity makes a useful analysis impossible without the “released questions.”

Therefore, in most cases, further analysis should be done using the Gap Report for Released Questions and the WASA Report for Released Questions while using the item map reference as an anchor to place the question within the curriculum.

**RL.4.5 Explain major differences between poems, drama, and prose, and refer to the structural elements of poems (e.g., verse, rhythm, meter) and drama (e.g., casts of characters, settings, descriptions, dialogue, stage directions) when writing or speaking about a text.**
The “Gap Report—Released Questions”

- Has only an abbreviated form of the item map.
- But has **hyperlinks to the actual reading passage and question**.
- And can be **sorted 4 ways**:
  1. by Standard/Key Idea
  2. by Regional Percent Correct
  3. by Size of Gap
  4. by Question Number
Can the Item Map ever be a sufficient resource without a Released Question reference?

RL.6.4 Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of a specific word choice on meaning and tone.

Perhaps, but if the district’s gap swings from largest to smallest within the same Key Idea, the released question will be needed to make sense of the data. See example to follow.
Here’s an example where a district had a very large negative gap on the question below, but had relative success on another question from the same Key Idea RL.6.4

Read this sentence from lines 11 through 14 of the story.

I hardly knew where I was, and I was completely oblivious to the audience, the strange hall, even the adjudicator, though I knew she must be out there somewhere in the blur of humanity beyond the stage, watching carefully and taking notes.

What is the meaning of the phrase “oblivious to” as it is used in this sentence?

A unaware of
B confused by
C scornful of
D afraid of
A “deconstruction” of the test question by the teachers and supervisor suggested why.

- Teachers first noted that the Gap Report showed an atypical performance gap of 20% below the region on a question that was the third easiest on this 6th grade test. [Noting, evidence gathering]

- Teachers also noted that, on the WASA report, the wrong answers were almost equally divided among the three wrong choices. Students weren’t distracted; teachers concluded they were confused. [Noting, evidence gathering and inferring]

- One teacher wondered if negative qualifiers preceding a key word in a passage caused special problems. They also noted the high percentage of ESL students. [Wondering, noting, evidence gathering] [This is an example of deconstructing the test.] Note: The word, “hardly,” was considered a negative qualifier by the teachers.

- Teachers concluded that to respond to this curriculum deficit, Key Idea, RL.6.4, the district would have to create an action plan. [From evidence, to inference/conclusion to plan of action]
Read this sentence from lines 11 through 14 of the story.

I hardly knew where I was, and I was completely oblivious to the audience, the strange hall, even the adjudicator, though I knew she must be out there somewhere in the blur of humanity beyond the stage, watching carefully and taking notes.

What is the meaning of the phrase “oblivious to” as it is used in this sentence?

A unaware of
B confused by
C scornful of
D afraid of
A process by which teachers and supervisors collaborate in discussing questions on an assessment.

Questions are viewed first as representative of the grade level curriculum [or not] as identified on the Item Map and then as part of Gap and WASA Reports.

The questions are then analyzed as sources of unique curriculum insights for the students in a particular district or as students with special needs.
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The Protocol in a Nutshell
(Steps 1-5 are evidence gathering, noting and wondering)

1. Use IDW accountability reports to identify areas of strength and weakness (Snapshot, Subgroup, Trends and other reports).
2. View “Performance Analysis with Gap Analysis” (from Common Data Views folder) to mine an assessment for problem areas noting both the Item Map identifier and important gaps.
3. Check the “Released Question Gap” for key examples.
4. Review the actual question and answers.
5. Examine the “WASA Report” for insightful patterns of wrong answers.
6. Deconstruct the test to find the curriculum insights and “teachable moments” for grade level teachers. (Step 6 adds inferring, concluding and planning action.)
| Cluster: Represent and solve problems involving multiplication and division. |
|-----------------------------|-----------------|--------------------|-------------------|
| District | Nassau |
| % Points Earned | % CR Full Credit | % Points Earned | Gap to Nassau |
| 21-MC | 71% | 80% | -9% |
| 27-MC | 67% | 70% | -3% |
| 48-CR | 21% | 5% | 31% | -10% |
| 06-MC | 72% | 75% | -3% |
| 19-MC | 68% | 75% | -7% |
| 35-MC | 66% | 87% | -1% |
| 40-MC | 64% | 87% | -3% |
| 50-CR | 33% | 30% | 43% | -10% |
**Five Questions from 3.OA.A.3**

Content.3.OA.A.3 Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.

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**Broad content area—big range in district gaps**

**Released question(s) needed!**
19. Maddie will ride her bike a total of 56 miles over 7 days. She will ride the same number of miles each day. What is the total number of miles Maddie will ride each day?

A. 8
B. 9
C. 49
D. 63
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Department of Curriculum, Instruction and Technology
Maddie will ride her bike a total of 56 miles over 7 days. She will ride the same number of miles each day. What is the total number of miles Maddie will ride each day?

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We hope this protocol and the samples given prove helpful in your efforts to improve learning and instruction through the analysis of assessment data in the IDW!