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Welcome back!
Today

Welcome/Overview
Implementation Progress
Correlation/Causation
Triangulation
Effort/Impact
Break
Data Questioning
Assessment Literacy
Lunch
Evaluating Assessments
Data Conversations with Students
Using Data to Create Flexible Small Groups for Differentiation
Break
Aggregate Data
Implementation Planning
Wrap-Up/Evaluations
Objectives

By the end of day 6, SDLTs will be able to:

- Identify impacts of their Data Use implementation.
- Employ the data analysis techniques of correlation and triangulation.
- Use Effort/Impact Matrix to prioritize which strategies to pursue.
- Articulate questions appropriate to various data sources.
- Evaluate assessment items for alignment to standards and Depth of Knowledge.
- Engage in Data Conversations with students.
- Use data to create flexible small groups for differentiation.
- Articulate how aggregate and disaggregated data can be used in schools.
- Articulate a plan for ongoing Data Use implementation.
• What changes in collaboration have taken place at your school as a result of Data Use PD?
• What changes in school culture have taken place at your school as a result of Data Use PD?
• What role did the Day 5 visit have in advancing data use with teachers?
Cycle of Inquiry

1. Identify Pattern of Need
2. Validate
3. Determine Root Cause
4. Reflect and Share Results
5. Act
6. Analyze
7. Strategize
8. Reflective Practice
9. Reflective Practice
10. Reflective Practice
11. Data Conversations
12. Data Conversations
13. Data Conversations
14. Assess
15. Implement Strategy
16. Create Action Plan
17. Select High-Impact Strategy
18. Brainstorm Strategies
Correlation and Causation
“Triangulation” is the process of using multiple data sources to address a particular question or problem and using evidence from each source to illuminate or temper evidence from the other sources. It also can be thought of as using each data source to test and confirm evidence from the other sources in order to arrive at well-justified conclusions about students’ learning needs.

-IES Practice Guide: Using Student Achievement Data to Support Instructional Decision Making
Cycle of Inquiry
Effort/Impact Matrix

High

High Effort
Low Impact

High Effort
High Impact

Low Effort
Low Impact

Low Effort
High Impact

Impact

Low

High
Summary

- Impacts of the work look different at different schools.
- A correlation between two variables does not necessarily imply that one causes the other.
- The purpose of triangulation is to use multiple sources of data to help support or confirm evidence from another data source.
- Using an Effort/Impact Matrix can help us prioritize what strategies are worth pursuing.
Break
Data Analysis Questions

- What questions can you ask of this particular data set?
- Which of these questions can you ask of *all* data sources?
Applying Data Analysis Questions
Cycle of Inquiry

- Reflect and Share Results
- Identify Pattern of Need
- Validate
- Determine Root Cause
- Create Action Plan
- Select High-Impact Strategy
- Brainstorm Strategies
- Data Conversations
- Reflective Practice
- Strategize
- Analyze
- Act
Assessment Literacy

- Evaluating Assessments
- Creating Assessments
Assessment Literacy

Summative:
• Assessment OF learning

Interim:
• Assessment OF and FOR learning

Formative:
• Assessment FOR learning
Assessment Literacy

Dimensions of Formative Assessment:

- Clearly articulated learning progressions
- Identified learning goals and success criteria
- Descriptive feedback
- Self- and peer-assessment
- Collaboration
Assessment Literacy
Summary

• Understanding the best questions to ask of various data sources and types can help facilitate productive data meetings and Data Conversations.

• It is important for educators to plan how they will assess student learning while creating their Instructional Action Plan.
Lunch
Evaluating Assessments

• Alignment to Standards
• Cognitive Complexity
• Data to Inform Instruction
Evaluating Assessment Items

RL.6.2 Key Ideas and Details: Determine a theme or central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.

<table>
<thead>
<tr>
<th>Item</th>
<th>Skill/concept measured</th>
<th>DOK</th>
<th>Part/All of standard?</th>
</tr>
</thead>
<tbody>
<tr>
<td>What are the themes of <em>Little Women</em>?</td>
<td>Determine a theme or central idea of a text</td>
<td>2</td>
<td>Part</td>
</tr>
<tr>
<td>Write a brief plot summary of <em>Little Women</em>, explaining the themes revealed throughout the text using specific examples from the text.</td>
<td>Determine a theme or central idea of a text and how it is conveyed through particular details; provide a summary of the text</td>
<td>3</td>
<td>All</td>
</tr>
</tbody>
</table>
Evaluating Assessment Items

Cognitive Complexity: Webb’s Depth of Knowledge

Level 1: Recall
• identify, state, list, define, recognize, use, measure

Level 2: Skill/Concept
• classify, organize, estimate, compare, infer, summarize

Level 3: Strategic Thinking
• generalize, draw a conclusion, support, hypothesize, investigate

Level 4: Extended Thinking
• make connections, synthesize, prove, analyze, design and carry out the project
Describe one cause of the War of 1812.

Describe the similarities between the War of 1812 and the American Civil War.

Describe the impact that the War of 1812 and the American Civil War have had on modern-day America.
Data Conversations with Students
Why Include Students?

“Students are motivated to try harder, risk failure, and set higher standards for themselves when they are involved in setting goals and monitoring and evaluating their own performance.”

(O’Neill, 2004)
You and Ms. Jackson both teach Antonio. In Ms. Jackson’s class, Antonio demonstrates good behavior and is performing well academically. In your class, Antonio has become disruptive and his performance on weekly quizzes has declined over the last month.

What kind of Data Conversation could you have with Antonio?

What kinds of questions could you ask?
Planning for Student Data Conversations Using Assessment Data

1. Explain expectations and assessment criteria.
2. Provide feedback to students that is timely, specific, well-formatted, and constructive.
3. Provide tools that help students learn from feedback.
4. Use students’ data analysis to guide instruction.

IES PRACTICE GUIDE: Using Student Achievement Data to Support Instructional Decision Making
Data Conversations with Students: Goal Setting

• Use *Student Goal Setting Sheets*

• Plan your Data Conversation:
  – What is the purpose of the Data Conversation?
  – What is the first question you will ask?

• Ask questions using Positive Presumptions
  – Open-ended questions to promote thinking and reflection

• Guide students toward Goal Setting

• Paraphrase as you go
Planning for Student Data Conversations

• How can Student Data Conversations enhance what is already happening at your school?
• How can Student Data Conversations impact instructional decisions – for teachers and for students?
• What might interfere with having students analyze their own data and set learning goals?
Cycle of Inquiry
Using Data For Flexible Grouping

Types of flexible small groups:

- Short Term
- Long Term
- Spontaneous
Using Two Data Sets to Create Groups for Differentiation

<table>
<thead>
<tr>
<th>9-Grid Matrix</th>
<th>Level 3</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Data Point A:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Level 1</td>
<td>Level 2</td>
<td>Level 3</td>
</tr>
<tr>
<td><strong>Data Point B:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Summary

• Assessments should align to standards and include varying levels of Depth of Knowledge.

• Considering the cognitive complexity of items can help educators provide more challenging tasks for students and give educators a more nuanced view of student achievement.

• Data Conversations can be used in various contexts and with multiple stakeholders, including students, to foster transparency.

• Differentiating for small groups of students can mean flexibly adjusting core instruction for clusters of students within a Cycle of Inquiry.
Break
Aggregate Data

What is it?

“Student performance data reported at the largest, aggregate-group level, such as by grade level and content area for a school, district, or state.” (p. 146)

Why is it important?

“It paints a broad brush picture of student achievement overall” and helps us understand student performance. (p. 146)

Disaggregated Data

What is it?

- Disaggregated data is the presentation of data broken down into segments of the student population instead of the entire population.
- Some common ways to disaggregate data include by: gender, grade level, enrollment in special programs, ethnicity, school or class, socioeconomic status, year of entry into district.

Why is it important?

Disaggregation can help educators at all levels reveal critical issues that might otherwise remain invisible.
Disaggregated Data – RI NAEP Results

Mathematics – Grade 4 Average Scale Scores

* Significantly different (p<.05) from 2013

NAEP Proficient: 249
The aggregate report below is displaying student level data on the following measures: On-track to Graduation percentage, Attendance Percentage, Number of Suspensions, Years Over-age and NECAP math and reading scores.

Note: The indicators below were processed on 11/6/2013 3:01:34 AM. When generating the indicators, RIDE uses the most current data available to RIDE which has been submitted by your LEA.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Low Risk</th>
<th>Some Risk</th>
<th>At Risk</th>
<th>High Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>On Track Percentage</td>
<td>92.91% (944)</td>
<td>3.64% (37)</td>
<td>1.97% (20)</td>
<td>1.48% (1)</td>
</tr>
<tr>
<td>Attendance Percentage</td>
<td>97.52% (940)</td>
<td>2.56% (20)</td>
<td>1.48% (15)</td>
<td>3.44% (1)</td>
</tr>
<tr>
<td>Number of Suspensions</td>
<td>98.62% (1002)</td>
<td>1.08% (11)</td>
<td>0.20% (7)</td>
<td>0.20% (1)</td>
</tr>
<tr>
<td>Years Over Age</td>
<td>86.22% (876)</td>
<td>7.00% (72)</td>
<td>4.53% (46)</td>
<td>2.17% (22)</td>
</tr>
<tr>
<td>Math Score</td>
<td>76.08% (773)</td>
<td>12.80% (130)</td>
<td>11.12% (113)</td>
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</tr>
<tr>
<td>Reading Score</td>
<td>88.48% (899)</td>
<td>7.78% (79)</td>
<td>3.74% (36)</td>
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### Disaggregate Report

Use the filters below to generate a disaggregate report

<table>
<thead>
<tr>
<th>Grade(s):</th>
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</thead>
<tbody>
<tr>
<td>□ All Grades</td>
</tr>
<tr>
<td>□ 6</td>
</tr>
<tr>
<td>□ 7</td>
</tr>
<tr>
<td>□ 8</td>
</tr>
<tr>
<td>□ 9</td>
</tr>
<tr>
<td>□ 10</td>
</tr>
<tr>
<td>□ 11</td>
</tr>
<tr>
<td>□ 12</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Demographic(s):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
</tr>
<tr>
<td>□ M</td>
</tr>
<tr>
<td>□ F</td>
</tr>
<tr>
<td>Free/Reduced Lunch</td>
</tr>
<tr>
<td>□ Y</td>
</tr>
<tr>
<td>□ N</td>
</tr>
<tr>
<td>Section 504 Status</td>
</tr>
<tr>
<td>□ Y</td>
</tr>
<tr>
<td>□ N</td>
</tr>
<tr>
<td>IEP Status</td>
</tr>
<tr>
<td>□ Y</td>
</tr>
<tr>
<td>□ N</td>
</tr>
<tr>
<td>LEP Status</td>
</tr>
<tr>
<td>□ Y</td>
</tr>
<tr>
<td>□ N</td>
</tr>
<tr>
<td>Race</td>
</tr>
<tr>
<td>□ American Indian or Alaska Native</td>
</tr>
<tr>
<td>□ Asian</td>
</tr>
<tr>
<td>□ Black or African American</td>
</tr>
<tr>
<td>□ Hispanic/Latino</td>
</tr>
<tr>
<td>□ Native Hawaiian or Other Pacific Islander</td>
</tr>
<tr>
<td>□ White</td>
</tr>
<tr>
<td>□ Two or more races</td>
</tr>
</tbody>
</table>

[Show Data]
Disaggregate Report

Report results filtered by Grade(s): 9 Demographic(s): [Free/Reduced Lunch-N] [Show Filter Options]

The aggregate report below is displaying student level data on the following measures: On-track to Graduation percentage, Attendance Percentage, Number of Suspensions, Years Over-age and NECAP math and reading scores.

Note: The indicators below were processed on 11/6/2013 3:01:34 AM. When generating the indicators, RIDE uses the most current data available to RIDE which has been submitted by your LEA.

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<th>Some Risk</th>
<th>At Risk</th>
<th>High Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>On Track Percentage</td>
<td>96.67% (207)</td>
<td>1.90% (4)</td>
<td>0.48% (1)</td>
<td>0.95% (2)</td>
</tr>
<tr>
<td>Attendance Percentage</td>
<td>91.80% (193)</td>
<td>4.76% (10)</td>
<td>0% (0)</td>
<td>3.33% (7)</td>
</tr>
<tr>
<td>Number of Suspensions</td>
<td>100.00% (210)</td>
<td>0% (0)</td>
<td>0% (0)</td>
<td>0% (0)</td>
</tr>
<tr>
<td>Years Over Age</td>
<td>67.14% (141)</td>
<td>13.81% (29)</td>
<td>14.29% (30)</td>
<td>4.76% (10)</td>
</tr>
<tr>
<td>Math Score</td>
<td>89.05% (187)</td>
<td>6.19% (13)</td>
<td>4.76% (10)</td>
<td></td>
</tr>
<tr>
<td>Reading Score</td>
<td>93.33% (196)</td>
<td>5.71% (12)</td>
<td>0% (0)</td>
<td>0.95% (2)</td>
</tr>
</tbody>
</table>
The aggregate report below is displaying student level data on the following measures: On-track to Graduation percentage, Attendance Percentage, Number of Suspensions, Years Over-age and NECAP math and reading scores.

Note: The indicators below were processed on 11/6/2013 3:01:34 AM. When generating the indicators, RIDE uses the most current data available to RIDE which has been submitted by your LEA.
Summary

• Aggregate data provides a look at the big picture, while disaggregated data helps educators drill down into sub-groups and refine Patterns of Need.

• It is important to be prepared for conversations about sub-groups when disaggregating large data sets.
Implementation Planning
## Days 6, 7 & 8

<table>
<thead>
<tr>
<th>Day 4</th>
<th>Today</th>
<th>Day 7: On-Site Visit</th>
<th>Day 8: Partial list of topics</th>
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</thead>
<tbody>
<tr>
<td>Adaptive Change and Collaborative Structures</td>
<td>Welcome/Overview</td>
<td>Agenda to be determined with your coach</td>
<td>Visual Data Displays</td>
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<tr>
<td>Inference Validation</td>
<td>Implementation Progress</td>
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<td>Creating Assessment Items</td>
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<tr>
<td>Root Cause Analysis</td>
<td>Correlation/Causation</td>
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<td>Action Research and Sustainability Planning</td>
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<tr>
<td>Techniques for Data Conversations: Paraphrasing</td>
<td>Triangulation</td>
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<td>Intersection Analysis</td>
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<tr>
<td>Planning Conversations</td>
<td>Effort/Impact Matrix</td>
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<td>Data Conversations with Parents</td>
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<tr>
<td>On-Site Visits</td>
<td>Break</td>
<td></td>
<td>Revisiting Data Inventory</td>
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<tr>
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<td>Data Questioning</td>
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<td>Assessment Literacy</td>
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<td>Lunch</td>
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<td></td>
<td>Evaluating Assessments</td>
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<td>Data Conversations with Students</td>
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<tr>
<td></td>
<td>Using Data to Create Flexible Small Groups for Differentiation</td>
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<tr>
<td></td>
<td>Break</td>
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<td>Aggregate Data</td>
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<td></td>
<td>Implementation Planning</td>
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</tr>
<tr>
<td></td>
<td>Wrap-Up/Evaluations</td>
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</tbody>
</table>
Reflection
Day 6 Session Evaluation

www.surveymonkey.com/s/pdsessioneval
Wrap Up