Data Use
Professional Development
Series
201
Welcome!
Data Use PD by the numbers

2012-2013 Wireless Generation Becomes Amplify
- 30 Cohorts (600+ RI educators)
- 136 schools (public and charter)
- August, 2012 = 63 days of training
- September, 2012 = 25 days of training
- 5 Full Time Data Analysis Coaches
- 4 Part Time Data Analysis Coaches

2013-2014 Amplify
- 32 Cohorts (almost 700 RI educators)
- 152 schools (public and charter)
- August, 2013 = 87 days of training
- September, 2013 = 3 days of training
- 6 Full Time Data Analysis Coaches
- 1 Part Time Data Analysis Coach
Agenda

Day 1

Welcome/Overview
Cycles of Inquiry
Data Use PD Implementation

Break
Identifying Patterns of Need
Connecting Initiatives

Lunch
Data Inventory
Implementation Planning

Break
Creating an Action Plan
Data and Differentiation
Wrap-Up/Evaluations

Day 2

Welcome/Overview
Revisit Cycle of Inquiry
Data Conversations

Break
Data Conversation Practice
Models of Collaboration

Lunch
Stakes and Validation
Cycle of Inquiry Practice
Vision Statement

Break
Implementation Case Studies
Goal Setting
Implementation Planning
Wrap-Up/Evaluations

Day 3

Welcome/Overview
Data Practice #1
Questioning Techniques for
Data Conversations

Break
Data Use and School Roles
Data Practice #2

Lunch
Data Transparency
Keeping it “low stakes” in a
high-stakes environment

Data Practice #3

Break
Implementation Planning
School Vision/Goals
Wrap-Up/Evaluations
Norms for our time together

Professionalism:

  Reasonable Bio/Tech Breaks
  Mutual Respect for Time and Others

Participation:

  Active Listening
  Shared Talk Time
  Willingness to Engage with Openness and Honesty

Problem Solving:

  Solution Oriented

Other:
Day 1 Objectives

By the end of Day 1, SDLTs will be able to:

- Define the role of an SDLT member.
- Describe the Cycle of Inquiry and how it relates to current school processes.
- Articulate the stages of the Short Cycle of Inquiry.
- Categorize various data sources.
The Big Picture

• When teachers make instructional decisions, what data do they use?
• What student and achievement information do teachers have ready access to?
• What barriers or gaps get in the way of more effective data use by teachers?
RTI Problem-Solving Process

1. Problem Identification
2. Problem Analysis
3. Plan Development
4. Plan Implementation
5. Plan Evaluation

- Modify
- Intensify
- Revise
- With Expanding Support
Cycles of Inquiry

1. Problem Identification
2. Problem Analysis
3. Plan Development
4. Plan Implementation
5. Plan Evaluation

Modify

Intensify

With Expanding Support

Data Conversations

Implement Strategy & Assess

Reflective Practice

Identify Pattern of Need

Act

Analyze

Strategize

Reflective Practice

Create Action Plan

Reflective Practice

Data Conversations
Data Use PD Implementation

Data Analysis Coach Roles and Responsibilities

• Facilitation of Data Use Workshops
  • Adapt and deliver content to meet the needs of the participants
  • Promote a safe and engaging learning environment
  • Help participants meet learning objectives

• Provide individual coaching to schools
  • Confer with school and/or principal before each site visit
  • Assist schools in reflective practice
  • Collaboratively problem solve school Data Use challenges
  • Build capacity for effective Data Use within schools
Data Use PD Implementation

SDLT Roles and Responsibilities

- Strategize how to best enhance data-informed decision making while building upon current data practices in your school
- Develop a plan for increasing the frequency and effectiveness of data use in your school
- Introduce the Cycle of Inquiry to faculty and support them in applying it to their everyday practice
- Implement Turnkey Activities with faculty
- Collaborate with peers in applying data use practices and data analysis skills
- Prepare faculty for Data Analysis Coach site visits
- Engage in ongoing communication with Data Analysis Coach
- Create a Sustainability Plan for your school
Bringing this work back to your school

- Getting Started
- Analyze
- Strategize
- Act
- Data Conversations
Collecting Reflection Data
Who is already doing this work at your school?
Summary

- Frequent low-stakes Cycles of Inquiry are at the core of the work.
- The Cycle of Inquiry focuses on using data in low stakes ways to adjust core instruction.
- SDLT members play an integral role in implementing Data Use PD in schools.
- The work will expand by building on assets already in place.
Patterns of Need:

Common results in the data for a group of students specific enough to allow you to target instruction where it is needed.

The need may be skill-based or content-based. It does not necessarily mean an area of weakness; there could be a need for enrichment or extension if the pattern indicates student strength in a particular area.
Identifying Patterns of Need
Initiative Integration

- Data Use
- Common Core Evaluations / SLOs
- Common Core
- Evaluations / SLOs
Summary

• Identifying Patterns of Need for clusters of students provides opportunities to ask big questions and examine our core teaching practice.

• Understanding the connections between initiatives creates synergies.
Lunch
What is data?
Data Quality Standards

What does good data look like?

Good data is….

• Accurate – Information is correct
• Complete – All records that should be included are there
• Unique – No duplication: one student, one record
• Timely – Information is collected as close to the time of use as possible
• Consistent – Information in multiple data systems all reflect the same thing
What data do we use?
What data do we have?
# Data Inventory

## Data Inventory Template

### Student Achievement Data

<table>
<thead>
<tr>
<th>Data Source</th>
<th>Grade Range</th>
<th>Content Area</th>
<th>When data collected / received</th>
<th>Who has access/ Where it is stored</th>
<th>Purpose</th>
<th>How are data currently used?</th>
<th>How data could be used more effectively</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example: NECAP</td>
<td>3, 4, 5, 6, 7, 8, 11</td>
<td>Reading, Math</td>
<td>□ Instruction</td>
<td>□ Screen/Identify</td>
<td>□ Outcomes/ Accountability</td>
<td>□ Inform Instruction</td>
<td>□ Screen/Identify</td>
</tr>
</tbody>
</table>

[Image of the page]
How can qualitative data be used to drive instruction?
Summary

- Turnkey Materials and Implementation Plans help SDLTs customize this work for their schools.
- A Data Inventory is a living document that guides the “Big Picture” of data access and use.
- Data-informed decision making requires good data that is accurate and complete. Assuring data quality is a continuous process.
Data and Action Planning
The Differentiated Classroom: Responding to the Needs of All Learners
- Carol Ann Tomlinson

Mind and Society
- Lev Vygotsky

Effective Classroom Practices Report
- National Center on Accessing the General Curriculum

“Differentiated Instruction for English Language Learners as ‘Variations on a Theme’
- Middle School Journal
Differentiation

“The idea of differentiating instruction is an approach to teaching that advocates active planning for an attention to student differences in classrooms, in the context of high quality curriculums.

Differentiation is not the same as individualization in that it doesn’t suggest IEPs for each student. It suggests that there are Patterns of Need in each classroom and if we look for those patterns we can develop approaches that will open up the classroom a bit.”

Carol Ann Tomlinson, The Differentiated Classroom: Responding to the Needs of All Learners
“Zones of Proximal Development: Readiness to Learn. The zone is the area between the student’s independent level and the next highest level the child is ready to tackle with the help of more competent teachers, and in which learning takes place.”

Vygotsky, Lev, Mind and Society
Differentiation

“To differentiate instruction is to recognize students’ varying background knowledge, readiness, language, preferences in learning and interests; and to act responsively.

Any time we make an instructional adjustment based on a student need, we are differentiating."

Hall, T., Strangman, N., & Meyer, A., *Differentiated Instruction and Implications for UDL Implementation*
“Differentiation should be achieved through small variations to a base activity, or the process may become too daunting and time-consuming for teachers. Differentiation can then become part of everyday practice rather than an occasional event.”

Laura Baecher, Marcus Artigliere, David Patterson, and Adrian Spatzer, “Differentiated Instruction for English Language Learners as ‘Variations on a Theme’”
Whole Class Instruction

Strategies for Differentiating:

• Scaffolded questions
• Varying explanation of concepts/skills/content
• Start with highest level activity
Summary

• Data Use will look different at our different schools, but it will begin to move us toward school-wide transparent data cultures.

• Differentiation can be done effectively during whole class instruction as part of a data-informed Cycle of Inquiry that begins with identifying a Pattern of Need.
You are here
We are here together
Agenda

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Day 2

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Revisit Cycle of Inquiry
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Data Conversation Practice
Models of Collaboration
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Stakes and Validation
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Data Use
Professional Development Series
201
Day 2
Reflection
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Norms for our time together

Professionalism:

- Reasonable Bio/Tech Breaks
- Mutual Respect for Time and Others

Participation:

- Active Listening
- Shared Talk Time
- Willingness to Engage with Openness and Honesty

Problem Solving:

- Solution Oriented

Other:
Day 2 Objectives

By the end of Day 2, SDLTs will be able to:

- Articulate the purposes of Data Conversations.
- Explain how Collaborative Structures support Data Use.
- Distinguish between High and Low Stakes decisions.
- Apply the Short Cycle of Inquiry using sample data.
- Analyze the variety of ways in which Data Use can be implemented in schools.
Data Conversations

Three types of Data Conversations

• Gathering Information
• Guiding Improvement
• Finding Solutions
The students in Mrs. Smith’s class are showing proficiency levels greater than the state, district, and school averages in reading.

The same cannot be said in math however, where her proficiency levels are behind the state, district, and school averages.

As Principal, which type of Data Conversation would you engage in with Mrs. Smith?
Mr. Cole is a merry old soul. His math students enjoy coming to class. His attendance rate is 98% where the rest of the school is 94%. Whenever an adult walks into his class, they see great student engagement.

The math teachers in Mr. Cole’s school have developed common assessments. Mr. Cole’s last few sets of test scores have been below average for his grade level, which is surprising to his principal since his students seem so interested in the class.

After receiving the most recent test scores, the following Data Conversations take place:

1. Guiding Improvement Conversation between the Principal and Mr. Cole
2. Information Gathering Conversation between Mr. Cole and one of his students
3. Finding Solutions Conversation between Mr. Cole and other math teachers
## Logging Data Conversations

<table>
<thead>
<tr>
<th>Date: Met with:</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Administrator</td>
</tr>
<tr>
<td>☑ Teacher</td>
</tr>
<tr>
<td>☐ Student</td>
</tr>
<tr>
<td>☐ Parent</td>
</tr>
<tr>
<td>☐ Other:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>What type of conversation did you have?</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Gathering information</td>
</tr>
<tr>
<td>☐ Guiding improvement</td>
</tr>
<tr>
<td>☐ Finding solutions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>What step of the Cycle of Inquiry were you in?</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Analyze</td>
</tr>
<tr>
<td>☐ Strategize</td>
</tr>
<tr>
<td>☐ Act</td>
</tr>
</tbody>
</table>

### What is one question you asked during the conversation?

- What strategies are you considering to help your students achieve proficiency with 2-digit addition?

### What was one result of the conversation?

- The teacher will have students work in small groups with base 10 blocks to solve 2-digit addition problems.
Summary

- Data Conversations span a range of purposes and should happen throughout the Cycle of Inquiry.
- Engaging in productive, solution-oriented Data Conversations is harder than it looks.
The Big Picture

• When teachers work together, what are they working on?
• What barriers or gaps are you finding that get in the way of more collaboration among teachers?
Collaborative Structures
Summary

• Analyzing data collaboratively yields better inferences, broader solutions, and comfort with transparency.
• Strong structures and fixed time support a collaborative culture.
Validation

High Stakes → Validate

What kind of decision will be made?

Low Stakes → Dertermine Root Cause

Data Conversations

and/or

Other Data Sources

Act

Strategize
Case Study
Summary

• The need for validation of inferences increases with the stakes of the decision.
“Habits, values, and attitudes, even dysfunctional ones, are part of one’s identity. To change the way people see and do things is to challenge how they define themselves.”

- Leadership on the Line
Data Use → Collaboration
Current State  Tension  Ideal Vision

Data Use Collaboration

Current State

Ideal Vision

Tension

72
Implementation Case Studies

In what ways do SDLTs implement data use in schools?

School A  School B  School C  School D  School E  School F
SDLT divides up responsibilities and develops a plan

SDLT Introduces Cycle of Inquiry and Turnkey activities

SDLT members coach teachers in applying the Cycle of Inquiry and using Data Analysis skills

SDLT continues to implement Turnkey materials and coach teachers

Sustainability Plan

Implementation Timeline

Days 1-3

Day 4

Day 5

Day 6

Day 7

Day 8

Days 9 & 10
Initiative Integration

Data Use

Common Core

Evaluations / SLOs
Implementation Planning
Summary

- Even with Collaborative Structures in place, engaging in good Data Conversations might be a new habit of mind for some people to develop.
- Major change involves loss.
- Implementation of the work looks different at different schools.
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Participation:
- Active Listening
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Problem Solving:
- Solution Oriented

Other:
Day 3 Objectives

By the end of Day 3, SDLTs will be able to:

• Apply the Short Cycle of Inquiry using authentic data.
• Reframe questions using Positive Presumptions.
• Explain how Cycles of Inquiry apply to your role.
• Articulate the purpose of Data Use as an initiative at your school and how it may be integrated with other initiatives.
• Analyze current school practices and plan next steps for Data Use implementation.
Validation

High Stakes → Validate

What kind of decision will be made?

Data Conversations and/or Other Data Sources

Low Stakes → Dertermine Root Cause

Act

Strategize
Share Out

• What will be the most intuitive part of this process for teachers?
• In which part of this process will teachers need the most support?
Data Conversations

Three types of Data Conversations:

• Gathering Information
• Guiding Improvement
• Finding Solutions
<table>
<thead>
<tr>
<th>Finding Solutions</th>
<th>Gathering Information</th>
<th>Guiding Improvement</th>
<th>VS.</th>
<th>Presuming Positive Intent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is it easier for you to teach that way because your students are more focused than mine?</td>
<td>Is Johnny failing your class too?</td>
<td>Are your students going to be ready for NECAP?</td>
<td>What strategies do you use to keep your students so focused?</td>
<td>I want to learn more about Johnny’s performance in different content areas; how is he doing in your class?</td>
</tr>
</tbody>
</table>
Positive Presumptions

• Involve thinking through what you really want to know, and what assumptions you are making before you ask a question.

• Presume a positive result has already taken place; so you ask a question with this assumption already in mind.

• Presuming positive intent is not the same as “being positive.”
Reframing

<table>
<thead>
<tr>
<th>Negative Presumptions</th>
<th>Positive Presumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are you going to help Frank with that math problem?</td>
<td></td>
</tr>
<tr>
<td>Did you use quiz results to form these groups?</td>
<td></td>
</tr>
<tr>
<td>You failed this test. What happened, you didn’t study?</td>
<td></td>
</tr>
<tr>
<td>Have you developed differentiated lesson plans for your students?</td>
<td></td>
</tr>
</tbody>
</table>
Summary

• Using the simple Cycle of Inquiry will help teachers develop the habit of mind of using data on a regular basis to inform instruction.

• Presuming Positive Intent makes Data Conversations more productive.

• Data is not an end result, but the beginning of a Conversation.
Validation

High Stakes → Validate

What kind of decision will be made?

Data Conversations ↔ Other Data Sources

Low Stakes → Dertermine Root Cause

Act → Strategize
Summary

- Your role, and the types of decisions you are making, help determine which Cycle of Inquiry to use.
- Multiple sources of data can be used to conduct short cycles of inquiry to make low stakes decisions.
Lunch
DANGER
THIN ICE
Summary

• Building a transparent data culture requires draining the stakes out of data.
• There can be things in schools that make data *feel* high stakes.
• Part of our role as SDLT members is to help keep data low stakes.
Agenda

Day 4

Sharing Implementation Results
Revisiting Data Conversations
Revisiting Initiative Integration
Inference Validation
Correlation/Causation
Triangulation/Intersection Analysis