INSTRUCTIONAL SHIFTS: EFFECTIVE USE OF DATA TO GUIDE INSTRUCTION

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AGENDA

- Guiding Question –challenges and effective use

- Identify what the literature/research tells us about data guided instruction

- Identify some strategies to facilitate data guided instruction

- Resources

GUIDING QUESTION

How do we effectively use data to guide our instructional decisions?

- At your school how might you answer the guiding question?

WHAT IS CHALLENGING ABOUT USING DATA TO IMPROVE INSTRUCTION?

THE GOAL

1. Address some possible answers to the guiding question.
2. Provide confirmation that you are probably on the right track.
3. Create an open dialogue to share ideas.

THINKING ABOUT THE INSTRUCTIONAL DECISIONS…

- Research has shown that using data in instructional decisions can lead to improved student performance (Wayman, 2005; Wayman, Cho, & Johnston, 2007; Wohlstetter, Datnow, & Park, 2008).

- No single assessment can tell educators all they need to know to make well-informed instructional decisions, so researchers stress the use of multiple data sources (Hamilton, et. al., 2009).

- When it comes to improving instruction and learning, it's not the quantity of the data that counts, but how the information is used. (Fisher & Frey, 2015)

WHAT THE LITERATURE/ RESEARCH TELLS US ABOUT DATA GUIDED INSTRUCTION

- Mindset
- Develop assessment literacy
- Identify data to be examined – soft and hard data
- Identify roles of members of the group
- Establish the conditions needed
  - routines;
  - establishing norms and
  - structures

MINDSETS

"What teams see in data says a lot about their mindset about schools and students" (Goodwin, p. 78).

Willingness to
- Examine own practice
- Reflect on changes needed
- Identify practices
- Develop "assessment literacy"

ASSESSMENT LITERACY

- **Purpose**: to increase comfort with using and understanding data

- Provide professional development on interpreting assessment reports related to literacy.

What do I <u>know and understand</u> about assessment and testing?

What do <u>I do with</u> what I know and understand about assessment and testing?

What do I <u>do to improve what I do</u> with what I know and understand about assessment and testing?

Assessment Literacy

ROLES

- Principals

- Literacy Leaders

- Classroom Teachers

Clearly Define Roles

CONDITIONS NEEDED TO SUPPORT DATA GUIDED INSTRUCTION

- routines;
- establishing norms and
- structures

THE NEED FOR STRUCTURE

Establish structures, routines, and norms

According to Love (2008), "…*too many schools (are) two shores with an ocean in between… What is often lacking is a process that enables schools to connect the data with the results they want.*"

This process involves establishing specific structures and routines for determining

- what data to examine,
- how the data should be examined, and
- participants tasks and roles.

STEPS TO MAKE DATA USEFUL

- Start early
- Look for links between practice and results
- Expect the unexpected
- Encourage speculation and discussion
- Drill deeper to examine classroom data
- Anticipate the needs of new students
- Pay close attention to historically underserved subgroups
- Plan regularly scheduled dates to analyze interval data

(from *Using Data to Focus Instructional Improvement* by *Cheryl James Wood, Douglas Fisher, Nancy Frey, Diane Lapp*)

STRATEGIES TO FACILITATE DATA GUIDED INSTRUCTION

- Utilize 3 phases model
- Collect multiple points of data – both hard and soft
- Analyze data on the spot as a teacher
  - Exit slips (variation from Fisher and Frey)
  - Using technology (video)from Fisher and Frey)
  - My favorite mistake (Fisher and Frey)

- Analyze data as a team using
  - Data walls
  - Data carousels
  - Data conversations (using 4 guiding questions)
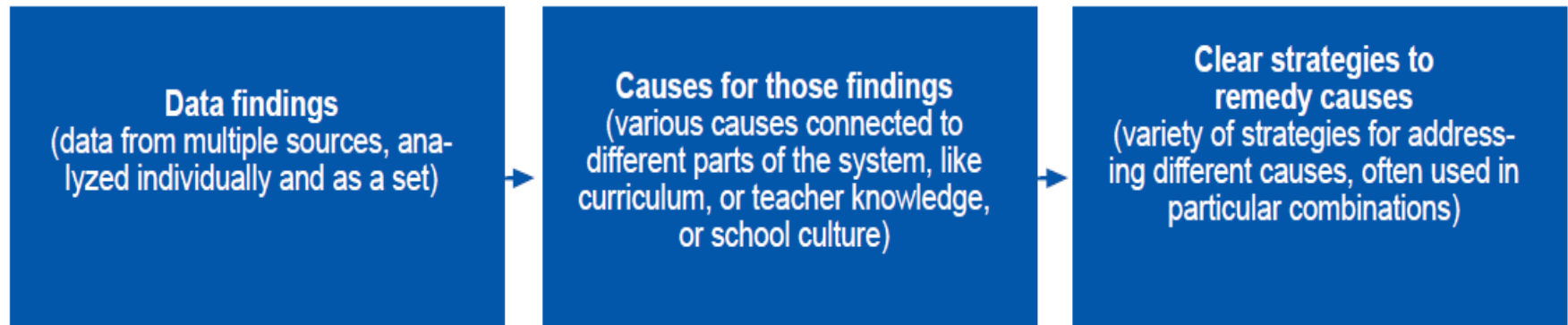 - Data sorting

Three Phases

- Data Collection

- Analysis

- Goal Development

A more accurate model for using data to inform instruction looks like this:

Data findings (data from multiple sources, analyzed individually and as a set)	Causes for those findings (various causes connected to different parts of the system, like curriculum, or teacher knowledge, or school culture)	Clear strategies to remedy causes (variety of strategies for addressing different causes, often used in particular combinations)

REFLECT

What makes using data to improve instruction challenging?

COLLECTING THE DATA (HARD AND SOFT)

"In order for data to be effectively used, there should be a plan for how data will be regularly collected and stored" (Kowalski et al, 2008)

"Collecting hard and soft data requires that school teams and their leaders develop assessment literacy, meaning they come to understand what the assessments do and do not measure (James-Wand, Fisher, Frey & Lapp, 2013)

VIDEO:

Show & Tell: A Video Column/Don't Just Gather Data—Use It

Doug Fisher and Nancy Frey

Using Plickers to quickly assess students answers

Video: http://bcove.me/2umzpgjz

ANALYSIS:
EXAMINING THE DATA

"...a systematic approach to instructional improvement requires that data are analyzed to identify patterns of strength and need (James-Wand, Fisher, Frey & Lapp, 2013).

VIDEO: ANALYZING DATA

How do common formative assessments help teachers meet the needs of all learners?

- Using CFAs to Improve Teaching and Learning (6:20)

https://www.teachingchannel.org/videos/common-formative-assessment

EXAMINING THE DATA USING DATA CONVERSATIONS

- Data Wall or Data Display

- Here's What? / So What? / Now What?

- Inverted Triangle

- Quick Sort/Data Sort

DATA CONVERSATIONS

What kinds of conversations about data bring about the greatest improvements in math teaching and learning?

- *"we saw teachers using assessment data to identify topics to reteach and students who would benefit from reteaching. Although this approach is "data driven" in that teachers use data to plan instruction, it does not necessarily help them improve instruction" (p 1)*
  http://www.ascd.org/publications/educational-leadership/nov15/vol73/num03/Getting-to-the-Why-and-How.aspx

DATA CONVERSATIONS

According to the authors of *Doing Data Right: Getting to the Why and How, "more productive approaches give teachers opportunities to learn about both students' thinking and their own teaching."*

Four Guiding Questions

- *What* do we need to reteach?
- *To whom* do we need to reteach it?
- *Why* did students struggle with this?
- *How* do we reteach it?

DATA CONVERSATIONS

- According to the authors, teachers tend to focus on the first two questions – what to reteach and to whom.

- *The most productive approaches address all four guiding questions—what to reteach, to whom it should be retaught, how to reteach it, and why students struggled.* It is common for teacher groups to leave out one or more of these questions, but a strong facilitator can encourage teachers to dig deeper into data.

http://www.ascd.org/publications/educational-leadership/nov15/vol73/num03/Getting-to-the-Why-and-How.aspx

Four Ways of Using Student Performance Data

		Learning About Instruction	
		Weak	**Strong**
Learning About Students' Thinking	**Weak**	*Targeted reteaching* • What? • To whom?	*Tips and tricks* • What? • To whom *and how?*
	Strong	*Bounded improvement* • What *and why?* • To whom?	*Responsive revisioning* • What *and why?* • To whom *and how?*

DATA CONVERSATION WITH DATA WALL /DATA CAROUSEL

The goal is to develop an interactive data wall that will be used and seen continuously. Data walls with guiding questions and links to practice insure that the wall is interactive and dynamic.

https://www.teachingchannel.org/videos/differentiated-instruction-with-data-walls

https://www.teachingchannel.org/using-data-effectively-module-sac

Data Conversation

Here's What, So What, Now What

Data Analysis

Here's What, So What, Now What		
Here's What (Just the Facts)	**So What** (Implications)	**Now What** (plan of action, next steps)

What themes do you notice?

What are the areas of strength and the areas of need?

Data Conversation – Inverted Triangle

Start with the big picture (school or grade level); *What are the themes? Areas of strength? Areas of need?*

Next, have the team examine and reflect on their individual classrooms.

Third, examine individual students: What have been their themes across The different grades and that grade. Look at areas of strength and areas of need.

QUICK SORT/DATA SORT

- identify/review the purpose and context of the student assignment

- begin the quick sort by spending a short amount of time separating the work into three piles.

- (the coach and teacher) choose one of the piles to start analyzing and begin noting trends in this group.

- use the strengths and challenges noted to design future lessons based on the needs of students

- https://formativecoaching.files.wordpress.com/2009/12/quick-sort-protocol-tool-for-literacy-12.pdf

From

Sadder, M., & Nidus, G. (2009). In The *Literacy Coach's Game Plan*. Newark, DE: International Reading Association.

QUICK SORT PROTOCOL

Names of Students	Trends among group (Strengths/challenges)	Implications for instruction	Notes on group progress
Members of Group 1			
Members of Group 2			
Members of Group 3			

GOAL DEVELOPMENT: CREATING A PLAN OF ACTION

Data Wall for Continued Conversation:

- Identify a guiding question based on data analysis linked to one key area of practice;

- Align data to the guiding question

- purpose is to engage the teacher(s) in conversations about classroom practice linked to the data and to look at progress;

https://www.teachingchannel.org/videos/data-carousels-improve-instruction

WHAT MIGHT BE YOUR "TAKE-AWAY"?

- Confirmations?
- Surprises
- Challenges?

IN SUMMARY

Guiding Question: How do we effectively use data to guide our instructional decisions?

1. Lay the foundation by ensuring that the conditions for looking at data have been put in place.
   - What is the mindset of the team?
   - Are members versed in "assessment literacy"?
   - Have structures, norms and routines been established?

2. Identify strategies for having meaningful data conversations that lead to action.
   - Make data conversations meaningful by using
     - Addressing 4 key questions
     - Sorts
     - Data walls/displays
     - Drilling down
     - Protocols such as "Here's What? So What? Now what?

RESOURCES

- Goodwin, B. (2015). Mindsets are key to effective data use. *Educational Leadership, Nov., 78-79.*
- Protheroe, N. (2010). Schools as effective data users. *Principal, Sept/Oct.,*
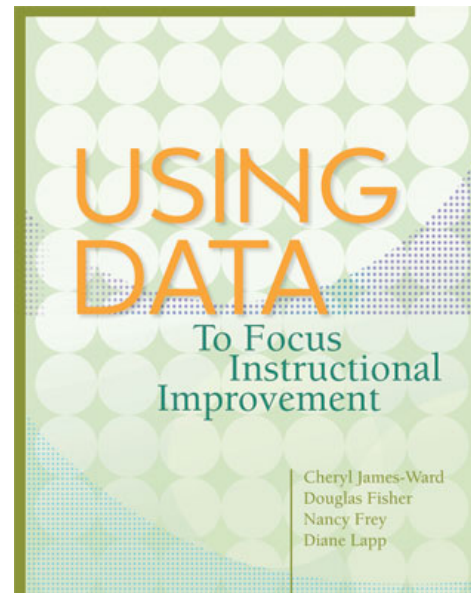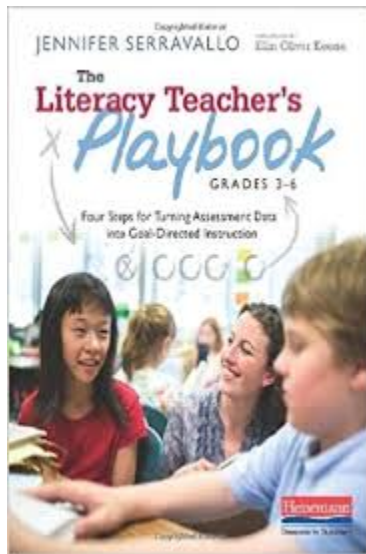
RESOURCES

Educational Leadership
November 2015 / Volume 73,
Number 3
Doing Data Right