Data-Driven Decision-Making

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In This Webinar:

- What are some key trends nation-wide regarding data-driven decision making?

- How to decide which data matters?

- What role does district data over time and standardized testing play in forming instruction?

- How do common formative and summative assessments inform instruction in the classroom?

What's Happening Now???

- Unfortunately, a lot of talk about data, but not enough effective use of it

- Many states have mandated standardized testing

- Many school districts implement benchmarks and interventions

- Utilization of the data to target teacher practices and student achievement is inconsistent at best.

Why Use Data?

- Important school decisions at the state, district, and building level can't be based upon intuitions or guesses.

- Real school improvement begins through utilizing data:
  - Address real issues
  - Create realistic goals
  - Track progress

Why Use Data?

- Data patterns:
  - Reveal system weaknesses
  - Provide direction to combat those weaknesses.

- Collaborative and reflective data study directs a deeper understanding of what types of understanding is taking place.
  - In light of strategies and practices being implemented

Data and School Improvement

- Numerous models exist to help direct states and school districts at the local level process data for decision making.

- Regardless of the model, the type and quality of data is key to successful school improvement

Data and School Improvement

- Most models contain some form of the following steps:
  1. Develop a leadership team
  2. Collect and organize several types of data
  3. Analyze data patterns
  4. Generalize hypotheses
  5. Develop goal-setting
  6. Design specific strategies for action plan
  7. Plan evaluation
  8. Implement plan

Data and School Improvement

- Achievement Data:

  - Annual, large scale data
    - Provides a broad view of the district's achievement levels
    - Administered once a year
    - Provide a district's general successes
    - Does not provide useful data on individual or classroom-level progress.
    - Waiting to see what kind of data the PARCC will provide
    - In IL…break down item by item.

Data and School Improvement

- Achievement Data (continued)

  - Periodic assessment data
    - Timely assessments of student performance on key standards-based skills in content area and/or grade level
    - Can track student progress and strengths and weaknesses
    - Can be used to differentiate instruction for groupings
    - Identify which students need enrichment or special assistance or intervention
    - KEY…a vehicle that coordinates results from benchmarking to classroom practices

Data and School Improvement

- Achievement Data (continued)

  - Ongoing classroom assessment data
    - Provides teachers with information about student progress in the classroom
    - Can be formal or informal
    - Assesses each student's conceptual understanding, knowledge, and skills
    - Assessments demonstrate who is excelling and who needs enrichment...who is on target and who needs help.
    - KEY: alignment of instruction with learning targets/standards

Data and School Improvement

- Demographic data
  - The goal is to thoroughly understand the school population in order to identify problems and needs
  - Leadership teams need to consider the following:
    - Who are our students?
    - What trends do we see in our student population?
    - What factors outside of the school may help us understand our students?

Data and School Improvement

- Demographic Data (continued)
  - Best to collect student demographic data longitudinally over a 3-5 year period to best identify trends
  - Data collected should contain the following:
    - Demographic information
    - Mobility patterns
    - Daily and weekly attendance rates
    - Student transportation needs
    - Rates of enrollment in special education and ELL, and after-school
    - Neighborhood characteristics
    - Parental involvement
    - Behavior and social problems of students

Data and School Improvement

- Program Data
  - Answers the question: how successful are our programs in bringing about the academic excellence stated in the standards
  - Should include an analysis of the alignment between the curriculum of school and state standards (Common Core)
  - Misalignment between written curriculum and what is taught in classrooms can negatively impact student achievement
  - Pause…what I feel about Common Core☺

Data and School Improvement

- Perception Data
  - Assists with understanding of the opinions and ideas of the school community-at-large
  - Surveying educators, parents, students, and community members regarding their perceptions of school's strengths and areas needing improvement
  - Consider following questions:
    - How do the members of our school community feel about our district and school?
    - How satisfied are the school community members with our educational programs?
    - What do the members of our school community perceive to be the strengths and needs?

Data and Classroom Instruction

- Data that informs instructional practices comes from classroom assessments

- Serve as meaningful sources of information for teachers

- Help to identify what was taught well and what still needs work

- Collected through SUMMATIVE and FORMATIVE assessments

Data and Classroom Instruction

- Pause for questions?????
- Summative Assessments:
  - Assessment of learning
  - Most often comes at the end of an entire unit/group of learning targets.
  - Ideally is standards-based: reflect the mastery of power standards for that unit.
  - This data indicates mastery, but does little to inform instruction
  - Occurs after learning is complete and used to give a grade or provide final measure of student results

Data and Classroom Instruction

- Formative Assessments
  - Assessment for learning
  - Identify who are "getting it" and whose who are not
  - Identify teaching practices that are most effective
  - Ideally advance and not merely monitor student learning
  - Provides guidance for remediation and enrichment (DuFour, 2010)

Data and Classroom Instruction

- Common Formative Assessments
  - Ideally....Working with a team of teachers:

    - Create a collaborative responsibility for the learning of a group of students who are expected to acquire the same knowledge and skills
    - Common to all teachers of the same content and/or grade level

    - The same instrument or rubric using the same criteria for determining quality of student work (DuFour, 2010)

Data and Classroom Instruction

- Advantages:(Dufour, Dufour, Eaker, & Many, 2010)
  - Promote efficiency for teachers
  - Promote equity for students
  - Provide an effective strategy for effectiveness of the "guaranteed curriculum"
  - Inform practice of individual teachers
  - Facilitate a systematic response to students who are experiencing difficulty
  - Powerful tool to change practice in the classroom

Data and Classroom Instruction

- Where to begin:
  - Ideally, work with the team of teachers within the Professional Learning Community Model
  - Begin with having developed "power standards" or prioritized standards based upon state standards or Common Core
  - Break down the standards or "deconstruct" the standards into **smaller learning targets.**

Data and Classroom Instruction

- Learning targets:
  - The learning targets become the basis for the formative assessments to monitor progress of student learning
  - They are increments of learning that make up the journey to achieving the overall standard
  - Include all of the skills and concepts students must acquire to master the standard
  - Common formative assessments are designed around learning targets rather than standards
  - Learning targets may be written as "I can" statements in student-friendly language

Data and Classroom Instruction

- To create learning targets from standards (deconstruct standards) (Jakicic, 2014)
  - Circle the verbs in the standard (these are the skills)
  - Underline the nouns (these are the concepts) to be taught
  - Double underline any prepositional phrases (these represent the context)
  - Write separately each verb (skills) and noun (concept) combination as a separate learning target
  - If a prepositional phrase (the context) is included at the beginning or the end of the standard, include it in the target
  - Determine whether the target is a knowledge, reasoning, skill, or product

Data and Classroom Instruction

- Example:

Standard: In an informational text, trace and evaluate the **argument** and **specific claims** in a text, distinguishing claims that are supported **by reasons and evidence from claims that are not.**

Skills: trace, evaluate, distinguish, support
Concepts: argument, specific claims, reasons, evidence
Context: informational text

Data and Classroom Instruction

- Potential learning targets (in the form of "I can" statements)
  - In a piece of informational text:
    - I can use evidence to trace an argument
    - I can use evidence to evaluate an argument
    - I can identify (distinguish) support for an argument
    - I can identify claims that do not support an argument

Data and Classroom Instruction

- How to decide how to assess: (Bailey & Jakicic, 2012)
  - Three primary means to assess at the formative level
    - Selected response
    - Constructed and extended written response
    - Performance assessments
    - Keep in mind...formative assessments should be designed on a small number of learning targets
    - Determine proficiency level for each target

  - Selected response
    - Multiple-choice
    - Matching
    - True/false
    - Exit slips

Data and Classroom Instruction

- Selected response (continued)
  - Work well for quick results
  - Allow for multiple questions for each target
  - Can't assess for high-level thinking

- Constructed or extended written response
  - Require more time to score
  - Scoring can appear uneven if teachers apply rubric differently
  - Individual writing ability can impact results
  - Works well for assessing chunks of knowledge
  - Better assesses student thinking

Data and Classroom Instruction

- Performance assessments
  - Ask students to carry out a process while assessor determines the quality of the performance using a rubric
  - Often students create a product and it is evaluated through the use of a rubric
  - Key: teacher team must develop rubrics together and implement them in close and similar ways.

Data and Classroom Instruction

- Analyzing the data to inform instruction
  - If organized into teacher teams/PLC, meet to go over results on a regular basis
  - If not, still can utilize data gathered from regular formative assessments
  - Data must be gathered by learning target for each student
  - Most important result…to develop and implement responses that support student learning

Data and Classroom Instruction

- Analyzing the data
  - Review the proficiency level established for each learning target to determine if it was set at appropriate level
  - Determine what students/questions were most often answered incorrectly
  - Align those with the learning targets
  - Meet with the team and compare results

Data and Classroom Instruction

- Analyzing the data (continued)
  - When comparing results, the focus needs to be with other students in the school
  - Keep the discussion focused upon the data and how to help struggling students learn a concept…not uninformed opinions
  - Opens up the possibilities of teachers sharing HOW they are successful with teaching certain targets

Data and Classroom Instruction

- How to provide corrective instruction
  - If working as a team of teachers, begin to brainstorm different approaches that can be taken to re-teach the concept
  - If alone, go back into best practice research to see what additional strategies one could consider.
  - Key is not to re-teach using the same methods, but implement other means to teach the same learning targets.
  - Benefit learning from other teachers as together collaborate towards improved student learning

Data and Classroom Instruction

- Resources for support for corrective instruction: (Bailey & Jakicic, 2012)
  1. Indentify similarities and differences
  2. Summarize and note taking
  3. Reinforcing effort and providing recognition
  4. Homework and practice
  5. Nonlinguistic representations
  6. Cooperative learning
  7. Setting objectives and providing feedback
  8. Generating and testing hypotheses
  9. Cues, questions, and advanced graphic organizers.

Data and Beyond

- With so much emphasis upon data-driven decision making at the state, district and classroom level, it is imperative to understand both the "big picture" as well as the individual classroom

- Not all data is created equal

- With the correct intent and focus, data can significantly improve teacher practice and student learning across the board.

Resources

Bailey, K., & Jakicic, C. (2012). *Common formative assessments.* Bloomington, IN: Solution Tree Press.

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