

Digging Into Data Analysis

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Why is data so important to the process of schooling?

- Data analysis is the foundation of school improvement, and effective school improvement is an attitude, a philosophy, a way of thinking.
- This statement is a reflection best revealed through a quote by Bill Elby, "The true purpose of our value statements is to guide both our behaviors and our decisions" (Walk the Talk, 2001).

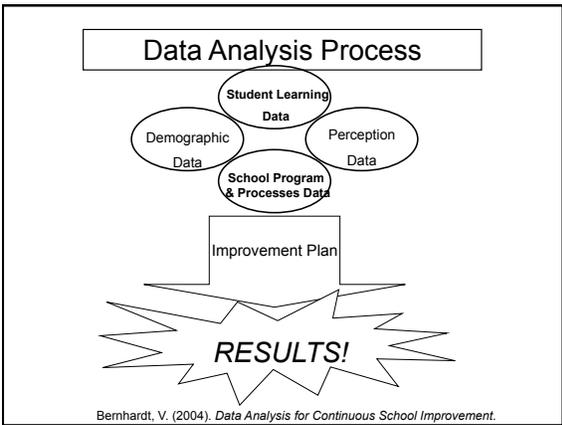
Disaggregation of Data

If we believe that all students can achieve, than any subgroup we choose should have similar achievement and results.

Process

- Setting structure
- Collecting data
- Analyzing patterns
- Factual observations
- Posing hypotheses
- Accepting or refuting hypotheses
- Developing or refining goals for upcoming school improvement cycle
- Designing or reviewing strategies and developing shared understanding about quality content and specific practices
- Defining and refining evaluation

Adapted from NCREL Data Retreat Facilitator's Guide



Data Collection Categories

For each category of data, what might you collect:

- **Student Achievement**
 - Standards data, CRA data, NRT data, other
- **Demographic Information**
 - Enrollment, subgroups, characteristics of students
- **Program Patterns**
 - Student-teacher ratio, course enrollment, special programs, special curriculum programs, staff development, school improvement goals and/or action plans
- **Perception Patterns**
 - Climate, parent, student, and staff surveys; safety, attendance, tardies, discipline

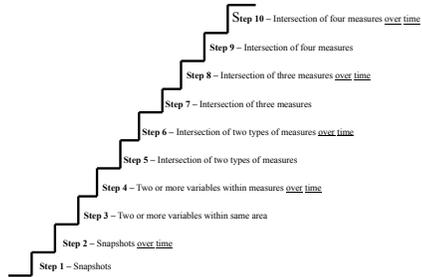
Sort Your Data



In your envelopes, please select data sources you could get your hands on:

- Green = Student learning and achievement data
- Blue = School program and processes data
- Yellow = Perceptual data
- Purple = Demographic data

Levels of Data Analysis



Adapted from: Bernhart, V. L. (2004). *Data Analysis for Continuous School Improvement* (2nd ed.) Larchmont, NY: Eye on Education, Inc.

Pledge of Confidentiality

I pledge to hold confidential and private any information regarding individual students shared during our time together.

I will respect the use of data as a tool to facilitate the improvement of student learning.

Factual Observations: Process

1. List any strengths in the format of factual statements.
2. **Note any questions you might have.**
3. List observed challenges in the form of factual statements.
4. Chart further questions and hypotheses.
5. Seek further data to accept or refute the posed hypotheses.

The Inquiry Process

Developing Hypotheses

A hypothesis is a theory or possible explanation for patterns observed.

- ❖ Why are our children performing the way they are?
- ❖ What systems and practices might be causing our children to have these performance trends?



Standards Observations

| | |
|------------------|-------------------|
| <u>Strengths</u> | <u>Challenges</u> |
| Hypotheses | Questions |

Initial Critical Friends Review

- How easy are the data charts to read and understand?
- What questions would you pose from a glance at the data?
- Other considerations?
- What works? What could be improved?

Connecting to School Improvement Efforts

- Goals
- Strategies
- Action planning
- Use of data
- Evaluation
- Sharing results
- Next steps

Criteria for Evaluation of a Student Performance Goal

- Goals are based upon an analysis of data.
- They are supportive of the district and school vision.
- They are phrased in terms of student learning.
- They address all of the school's learners.
- They reflect an emphasis on student growth.
- Goals can be implemented schoolwide.
- There is faculty consensus on the essence or definition of meaning for each goal.
- Goals are supported by a minimum of three data sources.

Adapted from AdvancED

Understanding Essence

- **Before a strategy can be established, the essence of the goal must be determined.**
- **Essence involves determining the dimensions of a concept on which the school wishes to focus.**
- **Example: What does “math skills” mean to your faculty?**

Writing Strategies

- ✓ **Should be student based, but a strategy does not have to be for all students! Strategies need to have an action word (learn, use, complete, participate in, produce).**
- ✓ **Programs or frameworks are not strategies in and of themselves. (LIFT is not a strategy in itself, but interactive writing and editing are strategies.)**
- ✓ **You can add and delete strategies as needed. Make sure to give them enough time to take effect.**
- ✓ **For each strategy, you will develop: (Show example on SIP)**
 - Professional development needed to implement the strategy
 - Students
 - Teachers
 - Others involved
 - THE person responsible and total group involved
 - Timeline for implementation
 - Resources

Adapted from AdvancED

Powerful Strategies

- **Are based upon research or other reliable sources that can indicate effectiveness**
- **Involve all or nearly all faculty and staff members in the building. (The level of involvement may not be equal for each person).**
- **Include the frequency and consistency of implementation with the students**
- **Include consideration of the following:**
 - Teaching
 - Modeling
 - Practicing
 - Expecting
 - Supporting
- **Require frequent monitoring of the effectiveness of the strategies to produce desired improvement in students**
- **Require frequent monitoring of implementation by all staff**



Thank You!

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