MARZANO RESEARCH LABORATORY

TINA H. BOOGREN

2011

Using Student Data to Inform Instruction

www.marzanoresearch.com

OUTCOMES FOR TODAY:

- Understand how curriculum, instruction, and assessment practices can be used to effectively manage student data.
- Understand how to involve students in their own data.
- Understand how to involve parents in their students' data.
- Learn effective strategies to understand student data.

DR. MARZANO:

In order to make judgments about the status of a student or an entire class at any point in time, teachers need as much accurate data as possible about an individual student's progress, or the progress of the class as a whole, to determine their next instructional steps.

"The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn."
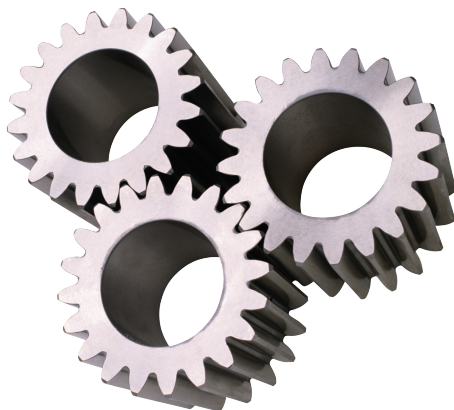
--Alvin Toffler

Multiple Measures of Data:

- **Demographics:**

- **School Processes:**

- **Perceptions:**

- **Student Learning**:
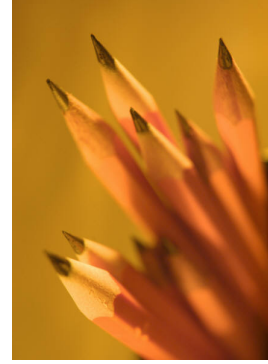
We look at student data in order to know:

- o If student has particular skills/knowledge

- o If student has attained proficiency

- o If instructional strategies are making a difference

- o The effectiveness of instructional strategies

- o How to improve instructional strategies

Effective Use of Student Data

Formative Assessment	Design Learning Goals/Content Objectives
FORMS OF ASSESSMENTS: *Obtrusive* *Unobtrusive* *Student-Generated*	*IDENTIFY:* *Essential* *Supplemental* *Nice to Know* *Endurance (Will this provide knowledge and skills that will be*

USES OF ASSESSMENTS:	of value beyond a single test date?)
Formative Scores	
Summative Scores (Grades)	*Leverage (Will this provide knowledge and skills that will be of value in multiple disciplines?)*
Instructional Feedback	*Readiness for next level of learning (Will this provide students will the "tools" they need for success at the next level or grade?)*
	No more than 15 per grade level

Proficiency Scales	Assessment Items
Level one: Beginning	*Level 2 items: Simpler details and processes that have been explicitly taught*
Level two: Progressing	
Level three: Proficient	*Level 3 items: Complex ideas and processes that have been explicitly taught*
Level four: Advanced	
Student-Friendly Scales	*Level 4 items: Inferences and applications that go beyond what was taught*
Half-Points	

Level 1 Beginning	Level 2 Progressing	Level 3 Proficient	Level 4 Advanced

Scale

4	**In addition to exhibiting level 3 performance, in-depth inferences and applications that go BEYOND what was taught in class**
3	**No major errors or omissions regarding any of the information and/or processes (SIMPLE OR COMPLEX) that were explicitly taught**
2	**No major errors or omissions regarding the SIMPLER details and processes BUT major errors or omissions regarding the more complex ideas and processes**
1	**With HELP, a partial knowledge of some of the simpler and complex details and processes**
0	**Even with help, no understanding or skill demonstrated**

Marzano Research Laboratory
Powered by Solution Tree

practical applications   synthesized data   inspired professional development

Teachers should meet periodically to examine the achievement data of their students on learning goals using a common scale. Discussion should focus on identifying instructional strategies that produce the greatest gains in student learning.

GRADING

Grades should be based upon proficiency scales rather than compared to other students.

WHAT ABOUT THE USE OF ZEROS?

- *Zeros have a large effect when the mean is used to measure central tendency.*
- *The use shows lack of proportionality between 0 and the 60-to-70% passing score. Other grading ranges have smaller scales.*
- *Zeros often convey inaccurate information. Was the work poor, or was it missing? Are you sure the student knows nothing?*
- *It typically doesn't work in creating student responsibility. It demotivates most students.*

THE FINAL OVERALL GRADE

Formative scores for a particular learning goal should NOT be averaged to construct a summative score.

HOWEVER...

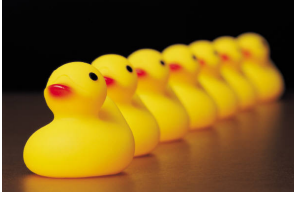*Averaging is a viable option when performance ACROSS learning goals in being aggregated.*

A TRADITIONAL REPORT CARD

SOME POSSIBILITIES:

3.50 – 4.00 = Advanced

2.50 – 3.49 = Proficient

1.50 – 2.49 = Basic

Below 1.50 = Below Basic

3.00 - 4.00 = A = 95%

2.50 - 2.99 = B = 85%

2.00 - 2.49 = C = 75%

1.50 - 1.99 = D = 65%

Below 1.50 = F = 60%

4.0 =   100%

3.5 =   95%

3.0 =   90%

2.5 =   80%

2.0 =   70%

1.5 =   65%

1.0 =   60%

Below 1.0 =   50%

Notes:

Additional Notes/Resources/Take-Aways:

Thank You!

Tina H. Boogren

tinaboogren@live.com

Twitter: THBoogren

Resources: *Formative Assessment and Standards-Based Grading* (2010), Robert J. Marzano; *Leaders of Learning* (2011), Richard DuFour and Robert J. Marzano