Using MAP, Additional Data Sources and Instructional Strategies to Increase Student Learning

Presented by Dr. Fran Prolman
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Essential Questions

• What are the indicators of a standards-based classroom and a school focused on student learning?

• What do I need to consider as I plan for a standards-based environment?

• What is the connection between analysis of data, instruction, assessment, curriculum and time in a standards-based environment?

• What are the implications for a “No Secrets” classroom and my instructional practice?

Essential Questions

• How can I expand my repertoire of instructional strategies to support a standards-based classroom?

• What are the implications for assessment and MAP data analysis within a standards-based environment?

• In what ways do differentiating instruction and data analysis support a standards-based environment?
Objectives
Participants will:

- Define a standards-based classroom.
- Identify the indicators of a standards-based classroom and school.
- Analyze the MAP data analysis and planning process necessary for standards-based education.
- Describe the role that instruction, assessment, data analysis, curriculum and time play in a standards-based environment.
- Explain how a "No Secrets" classroom supports standards-based instructional practice.
- Expand your repertoire of differentiated instructional strategies that support an AERO/MAP standards-based classroom.

Three Guiding Questions in a Standards-Based School

- What knowledge and skills will students be learning?
- What experiences will be used to ensure that students learn?
- What evidence will be gathered and used to ensure that students learn?

Keeping the Focus on Learning, Noteworthy Perspectives. By Gaddy, Dean, and Kendall, McREL, 2006, www.mcrel.org

What are the indicators in moving from the adoption or adaptation of standards to a fully implemented system that is focused on learning?
Indicators for a Standards-Based School

• Standards-Based Curriculum
• Standards-Based Assessment
• Standards-Based Instruction

Standards-Based Schools that Are Focused on Learning

FROM
• A focus on teaching
• An emphasis on what was taught
• Coverage of content

TO
• A focus on learning
• A focus on what students learned
• Demonstration of proficiency

Adapted from DuFour, DuFour, Eaker, Professional Learning Communities at Work, 2006, Solution Tree, Bloomington IN

Standards-Based Schools that Are Focused on Learning

FROM
• Providing individual teachers with a set of standards
• Individual teachers attempting to discover ways to improve results

TO
• Engaging teams in building shared knowledge with documents
• Teams helping each other to improve

Adapted from DuFour, DuFour, Eaker, Professional Learning Communities at Work, 2006, Solution Tree, Bloomington IN
Standards-Based Schools that Are Focused on Learning

FROM
• Teachers gathering data from their individually constructed tests in order to assign grades

TO
• Teams building a shared understanding from important assessments in order to inform their individual and collective practice

Adapted from DuFour, DuFour, Eaker, Professional Learning Communities at Work, 2006, Solution Tree, Bloomington IN

Stages of Backward Design

1. Identify desired results
2. Determine acceptable evidence
3. Plan learning experiences and instruction

SBE Planning Process

1st
What should students know and be able to do?

2nd
How will I, and they, know when they are successful?

3rd
What learning experiences will facilitate their success?

4th
Based on MAP data, how do I refine the learning experiences?

Adapted from A Common Ground, developed by Centennial BOCES, Longmont, Colorado.
Backward design may be thought of as purposeful task analysis: given a task to be accomplished, how do we get there? What kinds of lessons and practices are needed if key performances are to be mastered?

A Shift Towards a “No Secrets Classroom”

- AERO Standards clearly communicated
- Enduring understandings and mastery objectives aligned to standards and communicated to students
- Embedded ongoing assessments to check for student learning
- Consistent analysis of student data to inform instructional modifications and choice of strategies
- Activities planned to support the standard and mastery of content

Using MAP and Other Data to Improve Learning
Using data itself does not improve teaching.

Improved teaching comes about when we implement curriculum, instruction, assessment and professional development practices that will strengthen student learning.

‘What do our data tell us?’

In the fall
• What are our strengths and weaknesses?
• What are our growth targets?
• What strategies will we use to accelerate growth for those most at risk?
• What strategies will we use to create appreciable growth for all others?

Midyear
• Are our students progressing?
• Are our strategies effective—— how do we know?
• Reflect: What adjustments need to be made for next year?
In the spring

• Did students meet growth targets— why or why not?
• Were our strategies effective— how do we know?
• Reflect: What adjustments need to be made for next year?

Key Reports

Class Breakdown by Overall RIT
Teacher Report
Student Goal Setting Reports
District Summary Reports

Interpreting the Class Breakdown by Overall RIT Report
Applying DesCartes

Interpreting the Teacher Report

Interpreting the Online Individual Student Progress Report

- Key points on the text version
  - District Average
  - Norm Group Average
  - Student Growth
  - Typical Growth
  - Descriptors
- Key point on the graph version
  - Grade (G/x)
Interpreting and Applying the Student Goal Setting Worksheet

• Conference with each student
• Review performance
  – Celebrate success
  – Set content goal
  – Set growth goal
• Make a plan
  – The teacher will _____.
  – The student will _____.

Workbook pp. 14-15

Based on the analysis of MAP data, how do I modify my instruction?
2 Case Studies with MAP data

- Sanchez Leon – Math results
- Garfve, Jared D. – Reading results
What it looks like in a school....
Formative Assessment Tools

<table>
<thead>
<tr>
<th>To use at the beginning of a unit</th>
<th>To use during the lesson</th>
</tr>
</thead>
<tbody>
<tr>
<td>To use at the end of a lesson</td>
<td>To use prior to a summative assessment</td>
</tr>
</tbody>
</table>

Principles of Differentiation

1. Focus on essential to know concepts and skills as identified by AERO standards.
2. Identify student readiness/background knowledge levels, interests and learning/processing styles.
3. Provide sources of information at different reading levels, in different languages, and in varying formats to match different learning styles.
4. Engage all students in meaningful tasks which provide skill building and meaning making.
5. Provide teacher knowledge of content, pedagogy, and productive learning environments.
6. Balance student and teacher choice of working conditions, sources of information, and demonstrating that learning.
7. Group students in flexible ways individually, in small groups as a whole class. Base the groups on a variety of factors, including readiness levels and interests.
8. Give students prior, precise criteria for success for reports, tasks, performances and products. Rubrics and exemplars accompany the criteria.
9. Collaborate with colleagues and reflect about the impact of your instructional decisions.
Questions for my Planning

1. What should students know and be able to do with what they know as a result of this lesson?
2. How will students show what they know and what they can do with what they know? What will be the assessment criteria and what form will it take?
3. What do I need to do to differentiate instruction so that the learning experiences are productive for all students?
4. What is the MAP data suggesting?

Questions for my planning, continued

5. What else could I do to extend the thinking of students ready to go beyond the basic lesson? What other external resources could they use?
6. What have I learned from pre-assessments about your struggling learners? What support systems could I include?
7. How might I re-teach or help students who are struggling with mastering this concept?
Differentiating Instruction

Howard Gardner’s Multiple Intelligence Theory

Specific strategies to consider:
Build your repertoire!
Beginning Middle End

Framing the Learning

• Mastery Objectives
• Activators
• Rubrics
• Criteria for Success
• "No Secrets" Classroom

Checking for Understanding

• White boards
• Signal cards
• Sentence stems
• Descriptive Feedback

Evidence of Student Learning

• Summarizing strategies
• Visual Thinking Tools
• Interactive Notetaking
• Products review

Feedback | Other Responses
---|---
I don’t see any supporting details in the thesis statement | Weak thesis statement.
These L’s look like V’s. | Messy.
Does not contain an explanation of the chemical interactions. | B-
This lab report summarizes the steps you took. It reflects all parts of the rubric. | You were very thorough! This is the best lab you have ever handed in. Keep it up!
Your back foot is not coming up high enough to clear the hurdle. | Shoddy jump.
That was terrible! I can’t stand to listen to any more!

The first sentence tells the reader the main idea.

Each of your arguments is supported by evidence from the text.

These two adjectives don’t have gender agreements with the noun.

Don’t you know by now which nouns are masculine and which are feminine?

Feedback | Other Responses
--- | ---
The pianissimo was louder than the forte | That was terrible! I can’t stand to listen to any more!
The first sentence tells the reader the main idea | Clear.
Each of your arguments is supported by evidence from the text. | This is an excellent argument.
These two adjectives don’t have gender agreements with the noun. | Don’t you know by now which nouns are masculine and which are feminine?

Beginning | Middle | End
--- | --- | ---
Framing the Learning | Checking for Understanding | Evidence of Student Learning
- Mastery Objectives
- Activators
- Rubrics
- Criteria for Success
- "No Secrets" Classroom
- White boards
- Signal cards
- Sentence stems
- Descriptive Feedback
- Summarizing strategies
- Visual Thinking Tools
- Interactive Notetaking
- Products review

RESULTS FOR STUDENTS
PLAN
TEACH
DATA
RETEACH
REFLECT

® 2010
### Quick Sort Tool

**Lesson Objective**

<table>
<thead>
<tr>
<th>Number of Students in Each Category</th>
<th>Exceeds</th>
<th>Meets</th>
<th>Not Yet</th>
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<tbody>
<tr>
<td>Notes on Errors, Misconceptions, Gaps, Insights</td>
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### Individual Student Display and Analysis Tool

<table>
<thead>
<tr>
<th>Student Name</th>
<th>Exceeds</th>
<th>Meets</th>
<th>Not Yet</th>
<th>Notes on Errors, Misconceptions, Gaps, Insights</th>
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### Criteria Analysis

**Name:**

**Grade and Subject:**

**Date of lesson:**

**Objective for the lesson:** By the end of the lesson students will be able to...

**Formative assessment (product or performance):**

**Criteria for success for the formative assessment work collected includes:**

<table>
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<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
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</table>
Criteria Analysis: Analysis of Data Display

Name:

Based on your data display, what patterns emerged?
  • By criterion
  • By student
  • By groups of students

Identify the criteria for which there were a significant number of not-yet performances and formulate root-cause questions that will help you to reflect on the instructional issues and strategies for reteaching:

<table>
<thead>
<tr>
<th>Criteria for Which There Were a Number of Not-Yet Performances</th>
<th>Root-Cause Questions</th>
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I used to......

But now I......