Using data to focus instructional improvement is not rocket science, but a systematic step by step process, that if assiduously followed will lead to continuous improved student achievement.

Riverview Elementary – 3Languages
Dr. Kyriakidis, Principal
Jefferson Elementary School K-6

Mario Marcos, Principal

Where is Jefferson and Riverview?

Alabama SBE Plan 2020

- 2020 Learners
- 2020 School Systems
- 2020 Support Systems
- 2020 Professionals
Our Mission

To prepare kids to thrive in a global society that we cannot yet imagine.

People’s Republic of China

- Mission
- Medium to Long Term Education Plan
- PLCs and Use of Data
- Mantra

Teacher: Why are you standing on your head?
Pupil: I’m just turning things over in my head sir.
Taking a Pulse

Let's take a short assessment to get some baseline data.

1. What is the history of instructional improvement in your school/district?
2. What efforts/initiatives have worked well? Why?
3. What efforts/initiatives have failed? Why?
4. What lessons from past failures and successes should be carried forward as your school/district engages in continuous improvement?

Five Phases Instructional Improvement

1. Survey the information available within the school
2. Identify patterns, strengths and needs
3. Identify root causes
4. Develop goals and objectives that can drive the school improvement process forward
5. Monitor and adjust

Instructional Improvement in Action

- Transparency of data
- Peeling back the layers through lots of questions
  - What did
  - Why did
  - How can
- Pattern analysis, identifying trends, not solutions
- Identify root causes
- Goal setting and objectives
- Intervention and monitoring plan
Two types of Data

- Hard
- Soft

Hard Data Defined

- Reported using descriptive statistics that answers questions who, what, when
- Snapshot reports
- Actionable data
- Comparative statistical analysis

Types of hard data

- Criterion and norm-referenced student assessment data
- Demographic data
- Attendance data
- Suspension rates
- Referral rates
- Detention rates
- School nurse records
- Teacher credentials
Looking Deeper at Hard Data

Triangulation of comparative data findings
  - Referral rates
  - Academic Performance
  - Teacher preparedness
  - Across the day and/or across periods

Analyzing Across Data Points

  - Poor attendance in first period math class
  - Low math scores
  - Lack of teacher preparedness
  - Lack of differentiated questioning in first period math

Analyzing Across Data Points

  - Look for trends across multiple periods
  - Look for trends across multiple disciplines
  - Look for trends across multiple classrooms
  - Look for trends across multiple weeks
  - Look for trends across multiple months
  - Look for trends across multiple quarters
  - Look for trends across multiple years
Hard Data in Review

- Useful assessment measures
  - Baseline assessments
  - Weekly quizzes
  - Progress monitoring data
  - Benchmark assessments
  - End of year state assessments
- Useful Nonacademic Hard Data
  - Referrals by teacher, class or period
  - Attendance
  - Suspensions by teacher, class, or period

Soft Data Defined

- Information about student learning and instruction acquired by observing student and adult actions and by talking to students and adults
- Uncovered in classrooms, staff lounges, the front office, playground, athletic fields, the hallways, and other corners of the school
- Described in words and pictures rather than numbers
- Qualitative

Gathering Soft Data

- Observations
- Informal Interviews
- Chit Chat
- Surveys
Soft Data Observations

• Learning Walks
• Ghost Walks
• Capacity building learning walks
• Guided Visits
• Discussions

Soft Data and Culture and Climate
The Heart of Our Work

• What we destroy
• What we refuse to see
• What we tolerate
• What we accept we need to know more about
• What we are open to
• What we celebrate and live

Cultural Proficiency Continuum

[Diagram of Cultural Proficiency Continuum]
Soft Data and Culture and Climate

- How we place our students in classes
- How we make courses accessible to all
- Who we place our students with
- How we find ways to create a well-rounded curriculum
- How we engage as a staff in becoming more culturally competent
- How we engage various school stakeholders

Validating Soft Data

- Through Triangulation
- Through solid use of instruments
- Through valid sample sizes
- Through nonthreatening well designed observations
- Through a focus on the goals and objectives

Figure 3.1 Teaching Observation Form

<table>
<thead>
<tr>
<th>Teaching Observation Form</th>
<th>Observation Form: The International/Modern</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher: Jessica Grover</td>
<td>Date: 12/12/13</td>
</tr>
</tbody>
</table>

- Establishing Purpose (listed on back)
  - Learn about the lives of people in the Modern Period
  - The teacher introduces the topic in the beginning of the lesson
  - The teacher asks the students to think about the key events and how they affected society
  - The teacher explains the significance of each event

Production Group Work:

- When the teacher finishes, each group was given a question to research. The questions were:
  - What were the key events that occurred during the Modern Period
  - How did these events affect the lives of people?
  - What was the impact of these events on modern society?

Throughout the lesson, the teacher monitored the groups and provided guidance as needed.

Lesson Highlights:

Getting to the Root Cause

The daily work of school means that we administer to the academic, social, emotional, psychological, and physical health of children. Their daily success or lack thereof is compounded and magnified. Failure on one day might not mean much, but failure every day portends the educational equivalent of death; another dropout.

Root Cause – A definition

The deepest underlying cause, or causes, of positive and negative symptoms within any process that, if resolved, would result in elimination, or substantial reduction of the symptom (Preuss, 2003, p. 3)

Root Cause

A cause is likely to be a root cause when:
• You run into a dead end asking what caused the proposed root cause
• Everyone agrees on the root cause
• The cause makes sense and provides clarity to the problem
• If the cause is addressed there is realistic hope that the problem can be reduced or prevented in the future (Croteau, 2010)
Examining Root Causes

To examine the root cause we need to narrow the problem with evidence from the data and a series of questions

- Have we considered each subgroup
- Have we considered each content area
- Have we examined content clusters
- Do we detect upward or downward trends over multiple years
- Are we adequately examining cohort data over multiple years?
Getting to the Root Cause

• How you display that information will make all the difference in terms of whether your findings are comprehensible, provokes discussion and enquiry, and leads to action

Visually Displaying Your Data

• Quantitative – Graphs
• Qualitative – Tables
• Relational Frequencies – Pie Charts
• Trends – Line Graphs

Visual Displays

![Math BM Percent Proficient](chart1)

![Tardies](chart2)

![P1 Attendance Data](chart3)
### Jefferson - 1st Quarter ELA and Math Benchmark

<table>
<thead>
<tr>
<th></th>
<th>ADV</th>
<th>PRO</th>
<th>B</th>
<th>BB</th>
<th>FBB</th>
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<td>25</td>
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<td>18</td>
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</tr>
</tbody>
</table>

#### Developing Goals and Objectives to Address Root Cause

- **Goals** – Broad statements of end results, targets to be hit as the problem is addressed
- **Objectives** are specific statements of student competency
  - Linked to specific behavior
  - Clear and concise
  - Observable
  - Measurable relevant to the instruction
- **Plan 2020** – All students perform at or above proficiency

#### A Glimpse Into the Instructional Improvement Process at Jefferson
We have the data... And now What?

<table>
<thead>
<tr>
<th>ANALYSIS OF THE STANDARDS</th>
<th>WE ASKED OURSELVES...</th>
<th>NEXT STEPS TOWARDS MASTERY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify standards covered on 1st Quarter Benchmark Assessment.</td>
<td>Are we providing rigorous and intensive instruction?</td>
<td>Teachers will meet on PLCs in order to analyze bi-weekly assessments as well as reteaching/reassessing strategies.</td>
</tr>
<tr>
<td>Determine standards that need intensive instruction both in ELA and Mathematics by grade level.</td>
<td>Have the standards that were tested stayed on the same alignment?</td>
<td>Teachers will meet on a monthly basis in order to analyze bi-weekly data results.</td>
</tr>
<tr>
<td>Determine which are power standards.</td>
<td>Does the delivery of the instruction and bi-weekly assessments align to the format of the test? If not, what needs to change?</td>
<td>Students will present accordingly for reteaching in order to maximize time and results.</td>
</tr>
</tbody>
</table>

Mobilizing Efforts to Make a Difference

- Once goals and objectives are clear, then we need to identify how best to meet them. To do so we need to identify the target for the treatment
  - Students
  - Teachers
  - Families and Community

Sample Interventions

<table>
<thead>
<tr>
<th>Focus of Intervention</th>
<th>School-wide</th>
<th>Grade Level or Content Area</th>
<th>Targeted Group</th>
<th>Targeted Individual</th>
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</thead>
<tbody>
<tr>
<td>Students</td>
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<td>Familiar and Skill</td>
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<tr>
<td>Families and Community</td>
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</tbody>
</table>
Why does the principal keep talking to me about having “arty eye”? I teach reading not art.

Steps to Inform Instructional Improvement

• Start Early
• Look for links between practice and results
• Make the findings public and encourage speculation
• Drill deeper to examine classroom data
• Pay close attention to historically underserved subgroups
• Plan regularly scheduled dates to analyze interval data

Monitoring the Plan

Requires data collection and analysis
Hard
Soft
There's one person in your district that is all about "No Child Left Behind"

Who's that

The bus driver!

Q and A
Contact info: cward@mail.sdsu.edu