School Improvement Planning: Data Analysis

Clark County School-Level Teams



Special Thanks

- Center for Transforming Learning & Teaching
- Colorado Department of Education

This presentation is based on materials developed for and with the Colorado Department of Education through an interagency agreement (2009) with the Center for Transforming Learning and Teaching.



SID Data Coordinators:

Lisa Biesinger Lakeisha Young

SID Project Facilitators:

Krista Donnelly Sue Egloff Greg Manzi Stacie Nelson

AARSI Coordinators:

Ramona Esparza
Jeff Halsell
Laura Love
Kim Mauk
Wayne Roberson

IDS Department:

Becca Meyer Nathan Trenholm





Ensure school planning teams are prepared to identify performance trends and prioritize concerns (performance challenges) as part of improvement planning.



Participating from Two Perspectives

- Learner
- Facilitator



Norms

The standards of behavior by which we agree to operate while we are engaged in learning together.



Norms for Today

- Be present, participate, and engage fully.
- Listen to learn, limit side conversations.
- Monitor personal technology (turn cell phones off or on vibrate, close laptops during group activities).
- Pay attention to signals to rejoin the whole group hand-raising.
- Suspend judgment, live in curiosity.
- Provide feedback on the "Parking Lot."
- Commit to follow-through.



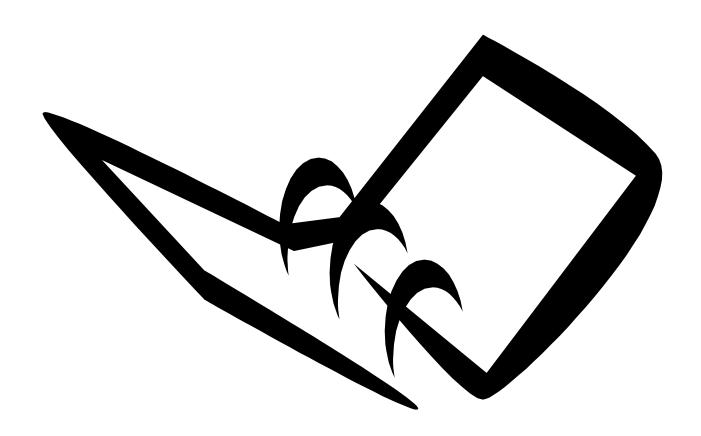
Introductions



At your table, share:

- Name, role
- Your current level of comfort in facilitating improvement planning at the school level.
- Your most important outcome for this session.





Session Outcomes

Participate in hands-on session.

Access additional resources.

Complete follow-up activities.

Explain how improvement planning will improve student learning and system effectiveness.

Identify data sources to use in improvement planning.

Identify the data analyses processes included in the Improvement Plan template.

Interpret district-required performance measures and metrics.

Identify where school performance did not meet expectations.

Describe performance trends (over at least 3 years).

Determine which performance challenges will focus improvement activity for the coming year.

Develop a plan for completing the data analysis for the schools' improvement plan.



Monitor Your Learning

- Turn to Progress Monitoring, p.4
- Re-write today's learning targets in language that has meaning for you.
- Create a bar graph which describes where you currently believe you are in relationship to each learning target.
- Leave the reflections column blank for now.

Learning Target	I don't know what this Is	I need more Practice	l've got It	I can teach others	Reflections
Explain how improvement planning will					
improve student learning and system					
effectiveness.					
In my words:					
I can explain why we engage in improvement planning and how it benefits students.					



Agenda

Improvement Planning Overview Gather Relevant Data Review
Current
Performance

Identify Performance Trends Prioritize
Performance
Concerns

Plan for Data
Analysis

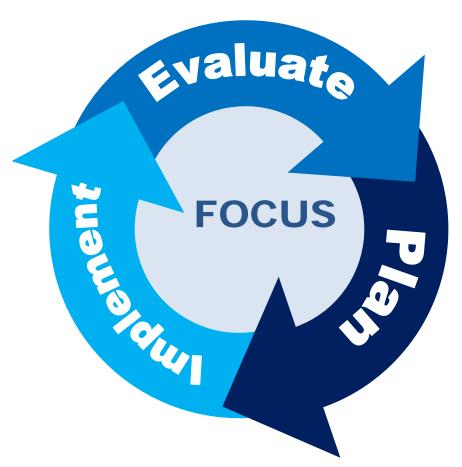


Purposes of Improvement Planning

- Provide a framework for performance management.
- Support school use of performance data to improve system effectiveness and student learning.
- Shift from planning as an event to continuous improvement. (Compliance vs. Commitment)
- Align federal/state and district accountability systems, bringing multiple planning requirements into one document.
- Align district support resources to school needs.

How will engaging in improvement planning result in improvements in student learning?

Theory of Action: Continuous Improvement



Monitor
Progress
throughout
the year



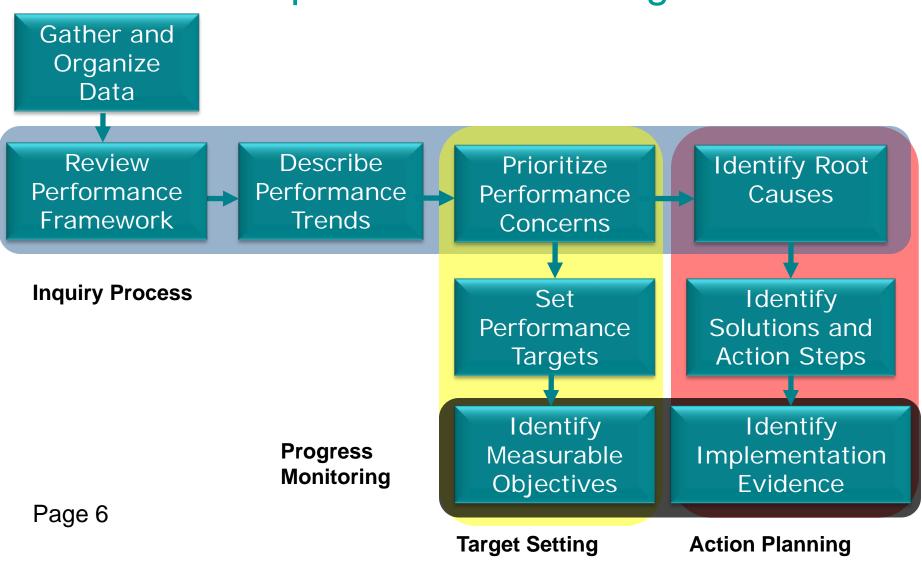
Planning Terminology

Consider Planning Terminology (p. 39). Use the following legend to mark each term:

```
□ ✓ = "I got it"
```

- ? = Could use further clarification
- * = New term or new definition for a familiar term
- With your team:
 - Discuss any terms which raised ?'s
 - Share terms that still need clarification with the full group

School Improvement Planning Processes



Section I	Section II	Section III	Section IV	Section V
Vision for Learning Members of	School Performance Summary	Year to Year Analysis Current Data Analysis and Root Cause Analysis	Goals and Measurable Objectives	School Improvement Master Plan and Reform
the School Planning Team		Key Strengths		Strategies

Section VI	Section VII	Section VIII	Section IX	Appendix A
Required Elements (All Schools)	Required Elements for Non-Title I "Needs Improvement" schools	Budget Narrative Summary (All Title 1 & Turnaround Schools Only)	Required Ten Components for Title I Schools Only Title I Only: Staff Review	Approval and Assurances



Consider the Structure

- Read/review Section II: School Summary (p. 9-10)
- With your table discuss:
 - What is the relationship between performance indicators, measures, metrics and expectations?
 - What are minimum district expectations for each performance indicator?



Agenda

Improvement
Planning
Overview

Gather Relevant Data Review
Current
Performance

Identify Performance Trends Prioritize
Performance
Concerns

Plan for Data
Analysis



Gathering Relevant Data

 Read/Review Gathering and Organizing Relevant Data (p. 7-9)

Consider:

- What basic district reports should all schools consider?
- What additional school-level data does our school have available?



Multiple measures must be considered and used to understand the multifaceted world of learning from the perspective of everyone involved.



-Victoria Bernhardt

Demographics

School Processes

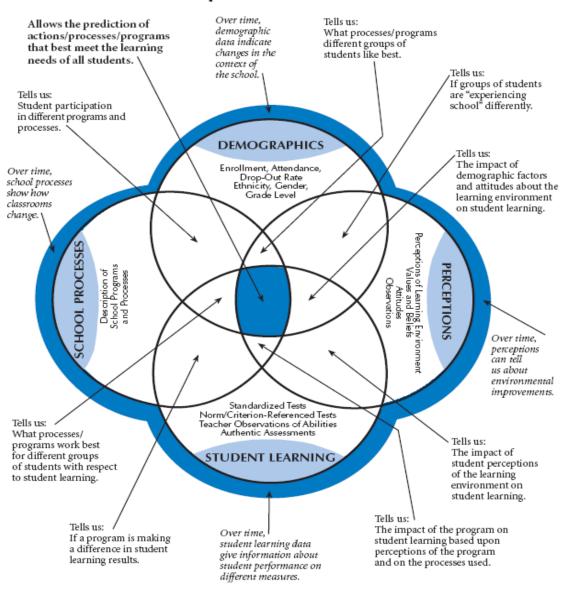
Provides information that allows for the prediction of actions, processes, programs that best meet the needs of all students.

Perceptions

Student Learning

Victoria Bernhardt

Multiple Measures of Data



What combination/ intersection(s) of different types of data helps us answer:

- Do students'
 experiences in school
 differ based on their
 characteristics?
- 2. Which students participate in a reading intervention program?
- 3. Is participation in a reading intervention program associated with increased student achievement?

p. 15

For what are multiple measures used in SIP?

- Consider these uses of data in Improvement Planning:
 - Review current performance and prior year's targets
 - Analyze data to identify trends
 - Prioritize performance concerns
 - Identify root causes
 - Identify interim measures to monitor changes in student performance during the year
 - Monitor implementation of action steps
- What type of data (intersections of data types) need to be considered for each use?

М

Inventory Local Performance Data

- Consider: Inventory of Performance Data Sources (p. 17)
- Legend (p. 18)
 - Content Area and Focus
 - Assessment
 - When Available
 - Which Students
 - Grade Levels
 - Metrics
 - Data Views/Reports
 - Questions/Purpose
- What information is captured about each data source



Complete the Inventory

- Questions to consider. . .
 - Do you know what assessment data sources are available to your school?
 - Do you already have a comprehensive inventory of available performance data?
 - Do you have the information asked for in this inventory (including when the data is available and the metrics)?
 - How do you access your school performance data?
- Follow-Up: Complete an inventory of performance data available to your school.



Agenda

Improvement
Planning
Overview

Gather Relevant Data Review
Current
Performance

Identify Performance Trends Prioritize
Performance
Concerns

Plan for Data
Analysis

School Performance Frameworks

- Focus attention on what matters most.
- Provide a body of evidence related to district-identified performance indicators to support district and school performance management.
- Establish a common framework for the district to use to hold schools accountable for performance.
- Identify schools that need additional support.
- Support school efforts to evaluate their performance, plan and implement strategies to improve performance.



School Performance Indicators

Achievement

Percent proficient and advanced

- Reading (CRT)
- Math (CRT)
- Science (CRT)
- Writing (CRT)

Growth

Normative and Criterion-Referenced Growth

- CRT Reading and Math
- Median Student Growth Percentiles

Growth Gaps

Growth Gaps

Median Student Growth Percentiles and

Median Adequate Growth Percentiles for disaggregated groups:

- Poverty
- Race/Ethnicity
- Disabilities
- English Language Learners



Review SPF Report

Consider (p. 36):

- In which indicator areas did the school not at least meet district expectations?
- In which sub-indicators did the school not at least meet district expectations?
- In which sub-indicators did school performance not meet school-level expectations?
- What is the magnitude of the school's performance challenge?
- Does performance (achievement and growth) differ across content areas? Is there one content area in which performance is weaker?



Agenda

Improvement
Planning
Overview

Gather Relevant Data Review
Current
Performance

Identify Performance Trends Prioritize
Performance
Concerns

Plan for Data
Analysis



What are performance trends?

- Read, Section III: Inquiry Process, Step Two: Identify Trends (p. 11-12)
- Discuss:
 - What are the most critical things to remember about performance trends?
 - What are some examples of performance trends?
 - What patterns can be described as trends?
 - What are the elements of a trend statement?

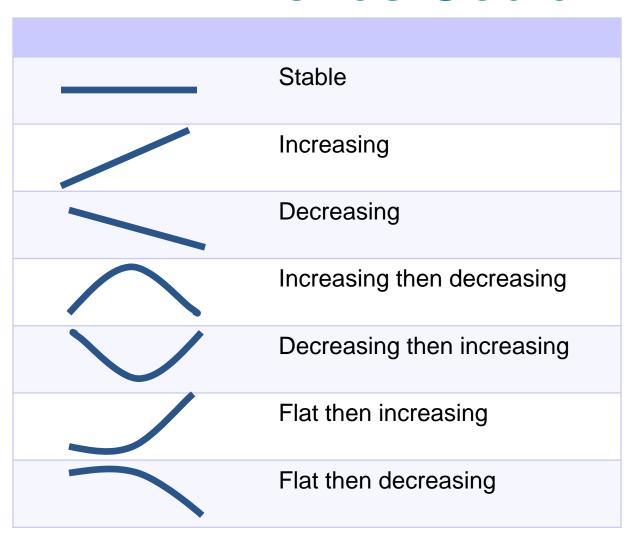


Trends

- Include <u>all</u> performance indicator areas.
- Include at least three years of data.
- Consider data beyond that included in the school performance framework (grade-level data).
- Include positive and negative performance patterns.
- Identify where the school did not at least meet state/federal and district expectations.



Trends Could Be:



What other patterns could folks see in three years of data?



Trend Statements

- Elements of a trend statement (p. 33):
 - Measure/Metric
 - Content Area (s)
 - Which students (grade-levels, disaggregated groups)
 - Direction
 - Amount
 - Time period
- Examples
 - The percent of 4th grade students who scored meets or exceeds on math CRT declined from 70% to 55% to 48% between 2009 and 2011.
 - The median growth percentile of English Language learners in reading increased from 28 to 35 to 45 between 2009 and 2011.



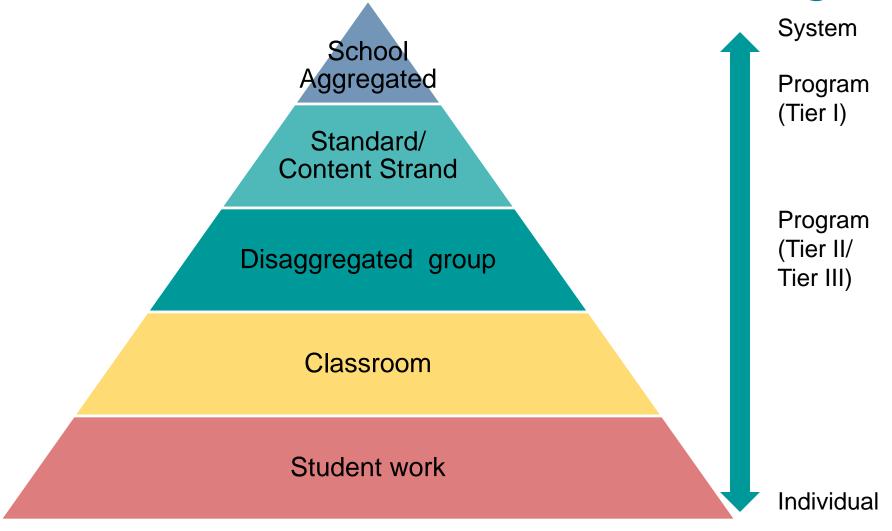
Collaborative Inquiry to Identify Trends

- Choose a partner. Turn to: Guiding Assumptions for Collaborative Inquiry. (p.21)
- Read individually one row in the chart.
- When each partner has completed a row, look up and "say something." Something might be a question, a brief summary, a key point, an interesting idea or personal connection to the text.
- Continue until you complete all of the rows in the table.

How to Describe Performance Trends

- Start with a performance focus and relevant data report(s).
- 2. Make predictions about performance.
- 3. Interact with data (at least 3 years).
- 4. Look for things that pop out, with a focus on patterns over time (at least three years).
- 5. Capture a list of observations about the data (positive or negative).
- 6. Write trend statements.
- Determine if the trend requires further analysis.

Levels of data/levels of challenges





Analyzing for Action

- How do we analyze data with action in mind?
- Would action steps target growth separate from achievement?
- In what categories do we take action?
 - Content areas (math, reading, writing, science)
 - Groups of students (low performing, low growth, race/ethnicity, ELL, IEP. . .)

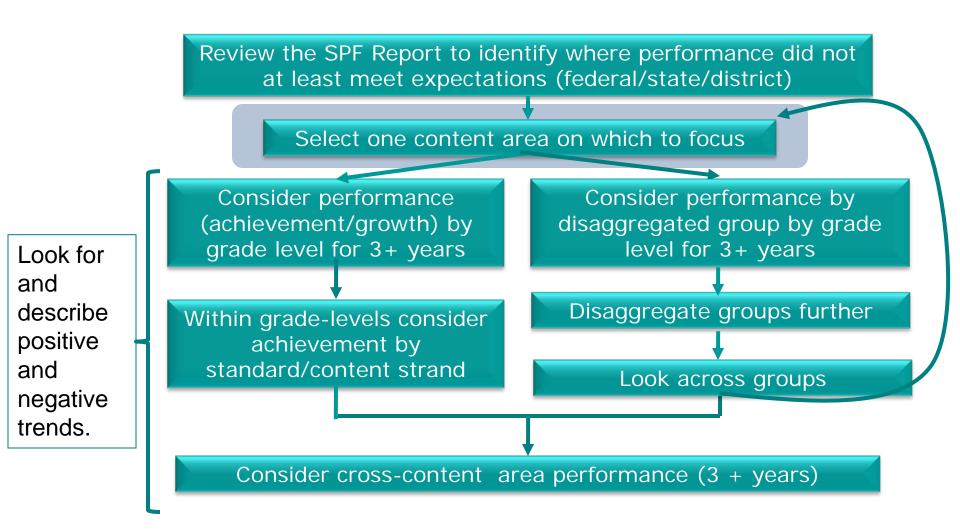


Organizing Data for Continuous Improvement

- Consider Organizing Data for Continuous Improvement (p. 22)
- Components:
 - Path through the data
 - Measures and metrics
 - Critical questions to "drill down" for each step
 - Data views/reports



A path through the data...





Initial focus

- Our path through the data includes focusing on one content area at a time.
- Choose an initial content area on which to focus (reading, mathematics) for the session today.
- Note: you will focus on the additional content areas with your local planning team after today.



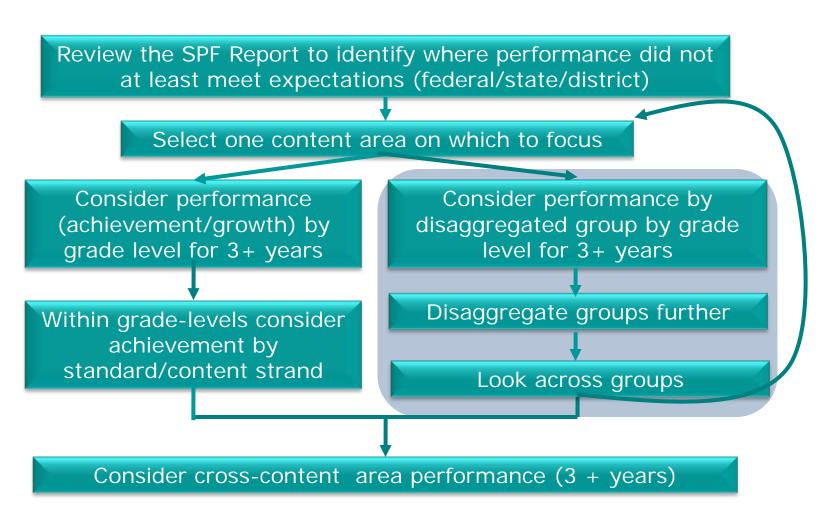
Considering Performance

- Academic Growth (overall and by grade-level)
 - Median Student Growth Percentile

- Academic Achievement (overall and by grade-level)
 - % catch-up, % keep-up, % move-up
 - % proficient or better
 - % and number scoring at each performance level (emergent, approaching, meets, exceeds)



A path through the data...





Disaggregated Groups

- Disaggregated Groups:
 - Minority (combines: Am. Indian, Asian, Black, Hispanic, Two or More Races, Pacific Islander)
 - Free/Reduced
 - ELL
 - IFP
- Academic Growth (MGP)
- Academic Achievement (% Proficient, % catch-up, % keep-up, % move-up)



Looking Across Groups

- How does performance (achievement and growth) compare across different disaggregated groups?
- Do some groups perform better than others? Which ones? By how much?



Why consider content-strand results?

- Identify (with a content area) strengths and weaknesses.
- Suggests where to go when determining root causes of performance challenges.



Achievement at the Standard/ Content Strand Level

- 2010-2011 P-Value Report (by grade level and content area)
- P-Values for:
 - School
 - District
 - State



How good is good enough?

- School-based teams must determine how good is good enough for content-strand scores, options:
 - District value
 - State value
 - Other



Cross-Content Area Performance

- How does performance (achievement and growth) compare across content areas?
- In what content areas is performance better than others?
- Are there common patterns across content areas?



Small N?

- What if summary reports have little or no data?
- NDE/CCSD does not report data for small N to protect student privacy.
- Options?
 - Student-Level Data
 - Summary statistics for smaller N
- Accessed through Inform.

M

Practice Describing Trends

- 1. Start with performance focus and relevant data report(s).
- 2. Make predictions about performance.
- 3. Interact with data (at least 3 years).
- Look for things that pop out, with a focus on patterns over time (at least three years).
- 5. Capture a list of observations about the data (positive or negative).
- 6. Write trend statements.
- 7. Identify which trends are significant (narrow) and which require additional analysis.



Practice

- In what content area will you focus your initial analysis?
- Organize your data reports for that content area:
 - CRT Three-Year Trend Report by grade level
 - School Growth Summary Reports by grade level
 - P-Value Report



Why Predict?

Access prior learning



- Name the frames of reference through which we view the world
- Make the assumptions underlying our predictions explicit, trying to understand where they came from
- Activate our engagement with the data



Peter Senge explains that we should do this, not to lay our assumptions aside, but rather to give them considerable weight and try to understand where they come from.

Predictions and Assumptions

P	A
Girls will outperform boys by 20%	we will mimic national trends.
White: Asian Students Will outperform Hispanic and African Om. Students by 2007 +	trends.
Only 30% of free and reduced Kids will be	we are not ask ing the right questions. We have work to
The larger % of free and re- duced in a school, the lower overall performance of the school GT students will be 95% +	We have work to do in differentiation. We don't have teachers wy greatest to the differentiation.
proficient in reading The More years in CC, the more proficient Spec Ed Students will be PP or Unsatisfactory	teachers w/ greatest skill working w/ kids of greatest need.



Activity: Predict

Select a recorder for your table.

Predictions	Assumptions
-------------	-------------

- 2. On a piece of flip-chart paper, create a T-chart.
- 3. Put "predictions" on one side and "assumptions" on the other side of the T-chart.
- 4. The recorder will capture predictions on the left side of this chart.
- 5. Make predictions about trends.

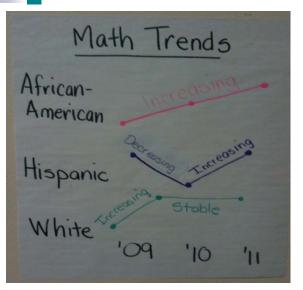
Describing Performance Trends

- 1. Start with performance focus and relevant data report(s).
- 2. Make predictions about performance.
- 3. Interact with data (at least 3 years).
- 4. Look for things that pop out, with a focus on patterns over time (at least three years).
- 5. Capture a list of observations about the data (positive or negative).
- 6. Write trend statements.
- Identify which trends are significant (narrow) and which require additional analysis.

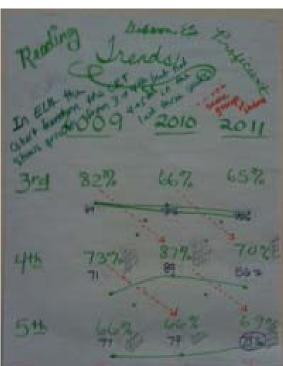


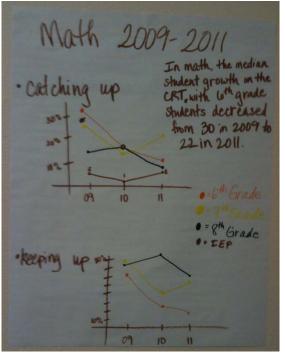
Interacting with data

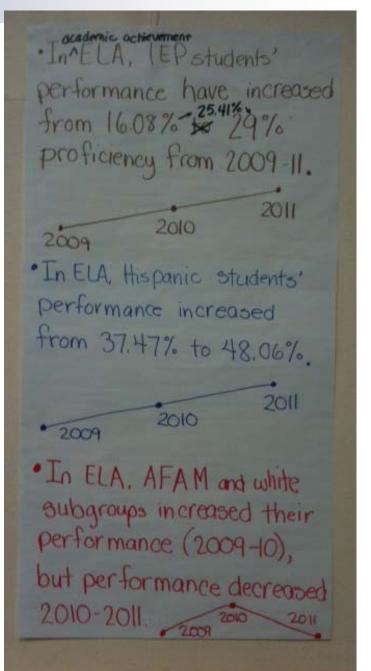
- Consider strategies for interacting with data:
 - Highlight (color coded) based on a legend.
 - Do origami fold the paper so you can compare columns.
 - Create graphic representations.
- Agree on an approach.
 - How will you interact with your data?
 - Plan to include a visual representation (use the Interacting with Data Tool as a reference).
- As a group, interact with your data.



Samples of Teams
Interacting with Data









Interact with Data- Task

- Select one content area to focus on from School Performance Framework (SPF)
- Look at trends available from School Growth Summary (Green & White) and 3-Year Trend
- Discuss the team's observations of the data
- Chart your observations (2 Graphics)
 - Growth Data (Green & White)
 - Achievement Data (3-Year Trend)

Describing Performance Trends

- 1. Start with performance focus and relevant data report(s).
- 2. Make predictions about performance.
- 3. Interact with data (at least 3 years).
- 4. Look for things that pop out, with a focus on patterns over time (at least three years).
- Capture a list of observations about the data (positive or negative).
- 6. Write trend statements.
- 7. Identify which trends are significant (narrow) and which require additional analysis.



Analyzing Trends

- Be patient and hang out in uncertainty
- Don't try to explain the data
- Observe what the data actually shows
- No Because





Identify Trends

- Review the highlighted data reports and graphical representations of data.
- Look for things that jump out.
- 3. Identify patterns over time (3-to-5 years).
- 4. Capture your observations on a flip chart.
 - Identify at least 5 observations about growth.
 - Consider growth and achievement together.

Describing Performance Trends

- 1. Start with performance focus and relevant data report(s).
- 2. Make predictions about performance.
- 3. Interact with data (at least 3 years).
- Look for things that pop out, with a focus on patterns over time (at least three years).
- 5. Capture a list of observations about the data (positive or negative).
- 6. Write trend statements.
- Identify which trends are significant (narrow) and which require additional analysis.



Writing Trend Statements

Consider "Developing Trend Statements" (p.33)

- 1. List the content area.
- 2. Identify the measure/metrics.
- Describe for which students (grade level and disaggregated group).
- 4. Describe the direction of the trend (e.g. increasing, decreasing, stable).
- 5. Include the amount.
- Identify the time period
- Identify for which performance indicator the trend applies.



Where will you drill deeper. . .

- Some trends don't tell the full story...
 - Is the same pattern evident at the disaggregated group level?
 - Is the same pattern evident across all content strands?



Identifying Performance Challenges

- Which of the identified trends are positive?
- Which represent performance challenges for our school?
- Label trend as:
 - Positive (+)
 - Negative (-) representing a performance challenge



Capturing Trends in the School Improvement Plan Template

- Capture performance trends (positive and negative) in the SIP template.
- Note: This worksheet is organized by performance indicator.



Completing Trend Analysis

- Turn to Planning for Data Analysis (p. 37)
- Make notes on how you will complete your trend Analysis. . .
 - Who will participate?
 - When?
 - What materials and tools will you use?



Agenda

Improvement
Planning
Overview

Gather Relevant Data Review
Current
Performance

Identify Performance Trends Prioritize
Performance
Concerns

Plan for Data Analysis



Priority Performance Challenges

- Read/Review Background on Data Analysis, Step Three: Prioritize Concerns (p. 12)
- Discuss:
 - What are the most critical things to remember about priority concerns?
 - How do priority concerns relate to trends?
 - Why do we prioritize concerns (performance challenges)?



Priority Concerns

Priority Concerns. . .

- Specific statements about performance
- Strategic focus for the improvement efforts
- About the students

Priority Concerns are **NOT**

- What caused or why we have the performance challenge
- Action steps that need to be taken
- Concerns about budget, staffing, curriculum, or instruction
- About the adults



Priority Concern Examples

- For the past three years, English language learners (making up 60% of the student population) have had median growth percentiles below 30 in both content areas.
- The percent of fifth grade students scoring proficient or better in mathematics has declined from 45% three years ago, to 38% two years ago, to 33% in the most recent school year.



Priority Concern Non-Examples

- To review student work and align proficiency levels to the Reading Continuum
- Provide staff training in explicit instruction and adequate programming designed for intervention needs.
- Implement interventions for English Language Learners in mathematics.
- Budgetary support for paraprofessionals to support students with special needs in regular classrooms.
- No differentiation in mathematics instruction when student learning needs are varied.



Determining Priority Concern Level

- Read: How to determine the appropriate level for a priority concern (p. 13)
- Discuss:
 - What "level" of trends did you identify?
 - For which trends will you consider additional data (at a further disaggregated level)?



Prioritizing Performance Concerns

- Clarify indicator areas where school performance did not at least meet state/federal or district expectations).
- Start with one indicator area, consider all negative trends.
- 3. Focus the list (combining similar trends).
- 4. Do a reality check (preliminary prioritization by dot voting on the tree map).
- 5. Achieve consensus about top priorities (consider using the real criteria).



Practice Prioritizing Concerns

- Start with "negative" trends.
- Focus the list (combining similar trends).
- Do a reality check (preliminary prioritization by dot voting on the tree map).
- Achieve consensus about top priorities (consider using the real criteria).



Completing Prioritization of Concerns

- Turn to Planning for Data Analysis (p. 38)
- Make notes on how you will complete your prioritization of concerns...
 - Who will participate?
 - When?
 - What materials and tools will you use?



Apply Quality Criteria: Performance Trends and Priority Concerns

- Use the Quality Criteria for Performance Trends and Priority Concerns. (p. 44)
- Consider:
 - How are the trends and priority concerns similar and/or different from that reflected in quality criteria?
 - How could these sections be improved upon?



Agenda

Improvement
Planning
Overview

Gather Relevant Data Review
Current
Performance

Identify Performance Trends Prioritize
Performance
Concerns

Plan for Data
Analysis



Data Analysis Notes

- 1. In which performance indicators did school performance not at least meet state/federal or district expectations?
- 2. Who was involved in identifying trends and prioritizing performance challenges?
- 3. What data did the planning team review?
- 4. In what process did the planning team engaged to analyze the school's data?
- 5. What were the results of the analysis (which trends were identified as significant)?
- 6. How were concerns prioritized?
- 7. What were identified as priority concerns for the 2011-12 school year?



Planning for Data Analysis

- When will you complete your data analysis?
- Who will be involved?
- What materials/resources/support do you need?



Taking it back to the school

Next steps:

- Complete the Performance Data Inventory.
- Pull together any additional performance data that will be used to finalize your trend analysis.
- Complete trend analysis (involving additional school staff as appropriate).
- Finalize prioritization of concerns (choose 2-4 areas on which to focus improvement efforts).



Give us Feedback!

Written: Use index cards



- + the aspects of this session that you liked or worked for you.
- △The things you will change in your practice or that you would change about this session.
- ? Question that you still have or things we did not get to today.
- Ideas, ah-has, innovations.
- Oral: Share one ah ha!



SID Data Coordinators:

Lisa Biesinger Lakeisha Young

SID Project Facilitators:

Krista Donnelly
Sue Egloff
Greg Manzi
Stacie Nelson

AARSI Coordinators:

Ramona Esparza
Jeff Halsell
Laura Love
Kim Mauk
Wayne Roberson

IDS Department:

Becca Meyer Nathan Trenholm