

## Using Data to Guide Instruction and Improve Student Achievement

<p><b>Six Roles for Data</b></p> <ol style="list-style-type: none"><li>1. Improving decision making</li><li>2. Describing processes, practices, progress</li><li>3. Examining belief systems</li><li>4. Mobilizing for action</li><li>5. Monitoring implementation of changes</li><li>6. Accountability</li></ol> <p>Johnson, Ruth S (1996). Setting our sights: Measuring equity in school change. Los Angeles, CA: Achievement Council.</p>	<p><b>Types of Data</b></p> <p><b>Student Achievement Data . . .</b></p> <ul style="list-style-type: none"><li>•Describes how students are doing at a particular point in time</li><li>•Communicates the degree to which students have acquired specified knowledge, skills, and attitudes.</li><li>•Is measurable and quantifiable.</li></ul> <p><b>Demographic Data . . .</b></p> <ul style="list-style-type: none"><li>•Helps the school understand the students and their unique needs.</li><li>•Provides vital statistics regarding the students, staff, parents, and community.</li><li>•Identifies factors that must be considered in decision making.</li></ul> <p><b>Organizational Effectiveness Data . . .</b></p> <ul style="list-style-type: none"><li>•Includes information related to the school's efforts to promote a high level of student achievement.</li><li>•Refers to variables over which the school has some degree of control.</li><li>•Helps the staff make effective decisions about curriculum, instruction, and assessment.</li></ul> <p><b>Stakeholder Perspective Data . . .</b></p> <ul style="list-style-type: none"><li>•Provides essential information about what students, parents, teachers and others think about the teaching and learning environment.</li><li>•Includes knowledge of the expectations stakeholders have for the organization and their satisfaction level with the school's practices and productivity.</li><li>•Describes both qualitative and quantitative information about the climate of the organization and the culture for change.</li></ul>
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## The Process of Using Data to Increase Student Achievement

<p><b>1. Preparing the Data Team</b></p> <ul style="list-style-type: none"> <li>•Select the team members.</li> <li>•Communicate expectations about roles, responsibilities, process, and contributions.</li> <li>•Prepare the group to work in the team by communication guidelines and norms.</li> <li>•Prepare the setting for the meetings by including copiers, computers, projectors, highlighters, flipcharts, etc.</li> </ul> <p><b>2. Mining/Collecting the Data</b></p> <ul style="list-style-type: none"> <li>•Define essential questions.</li> <li>•Determine evidence (indicators) required to answer the questions.</li> <li>•Determine measures needed to collect the evidence/data required to answer the questions.</li> <li>•Conduct an inventory of available measures and review the efficacy of the measures.</li> <li>•Gather the data.</li> <li>•Create data tables.</li> <li>•Represent the data graphically (e.g., pie charts, bar graphs, line graphs, scatter plots)</li> </ul>	<p><b>3. Analyzing and Interpreting the Data</b></p> <ul style="list-style-type: none"> <li>•Review data tables and graphic representations.</li> <li>•Identify observations, patterns, and trends.</li> <li>•Document findings for others to view.</li> <li>•Hypothesize contributing factors.</li> <li>•Identify connections to the school and classroom.</li> <li>•Interpret the results.</li> <li>•Identify strengths and needs.</li> </ul> <p><b>4. Using the Data</b></p> <ul style="list-style-type: none"> <li>•Create the school profile.</li> <li>•Define/affirm mission and beliefs.</li> <li>•Define the results for student learning.</li> <li>•Determine school improvement goals.</li> <li>•Determine objectives and strategies.</li> <li>•Allocate resources</li> <li>•Matching improvement goals with professional development</li> </ul> <p><b>5. Implementing Improvement Initiatives, Monitoring and Evaluating Progress, and Making Adjustments</b></p> <ul style="list-style-type: none"> <li>•Implement improvement initiatives</li> <li>•Use Professional Learning Teams to support improvement initiatives.</li> <li>•Use radical celebration.</li> </ul>
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### 1. Preparing Data Teams

<p><b>Data Teams</b></p> <ul style="list-style-type: none"> <li>•Involve a variety of stakeholders in developing and implementing the organizations preferred future.</li> <li>•A data retreat consists of specific days reserved for data team members to devote solely to the analysis and interpretation of data relevant to student learning and performance.</li> <li>•See an inventory of data team member knowledge, skills, and attitudes on page 29 in Darnell, B. (2002). Guide for instructional leaders: Leading instructional environment assessment. Alexandria, VA: Association for Supervision and Curriculum Development.</li> </ul>
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<p><b>Districts who utilize trained teacher and administrative data and school improvement leaders report . . .</b></p> <ol style="list-style-type: none"> <li>1. strengthened school improvement efforts.</li> <li>2. increased use of data,</li> <li>3. more focused efforts on targets and core problems,</li> <li>4. more plausible interventions, and</li> <li>5. even better communication across departments and grade levels (Killion &amp; Bellamy, 2000).</li> </ol>	<p><b>Possible data team members could include:</b></p> <ol style="list-style-type: none"> <li>1. building administration</li> <li>2. special education representative</li> <li>3. curriculum director</li> <li>4. district assessment coordinator</li> <li>5. special program representatives (e.g., Title I, At risk, Gifted, Talented)</li> <li>6. guidance counselor and other student services</li> <li>7. teacher representatives from a variety of content areas and grade levels.</li> <li>8. paraprofessional representative</li> </ol>
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## 2. Mining/Collecting the Data

### **Guiding Questions for Collecting Achievement Data**

- What evidence can we collect about our students' learning?
- What evidence do we have that shows the knowledge, skills, and understandings our students have achieved?
- What evidence shows which students are meeting or exceeding our achievement expectations and which are not?
- What do we know about how each individual student learns?

<b>Student Achievement/Discipline Data</b>	<b>Demographic Data</b>
<p>This type of data can include such items as the following:</p> <ul style="list-style-type: none"> <li>•report card grades</li> <li>•performance assessments and portfolios</li> <li>•Ds and Fs list</li> <li>•school/district standardized norm-referenced tests</li> <li>•state tests</li> <li>•observations of student performance</li> <li>•student work artifacts</li> <li>•criterion-referenced tests</li> <li>•course enrollments (e.g., advanced placement)</li> <li>•courses, honors classes, core curriculum etc.)</li> <li>•graduation, retention, and dropout rates</li> <li>•post-high school choices (e.g., college attendance, military, work)</li> <li>•discipline referral data</li> <li>•attendance rates</li> </ul>	<p>Demographic data can include such items as the following:</p> <ul style="list-style-type: none"> <li>•enrollment</li> <li>•grade level</li> <li>•attendance and tardiness patterns</li> <li>•ethnicity</li> <li>•gender</li> <li>•home background</li> <li>•language proficiency</li> <li>•mobility rate</li> <li>•disability type or health needs</li> <li>•socioeconomic status</li> </ul> <p>Information about the parents and community can include:</p> <ul style="list-style-type: none"> <li>•parent and community involvement</li> <li>•percentage of residents with school-age children</li> <li>•economic conditions</li> <li>•level of education</li> <li>•ethnicity</li> <li>•organizations availability and capacity to support education</li> </ul> <p>A useful school demographic profile will also include accurate and thorough information about the staff. This also includes, but is not limited to the following:</p> <ul style="list-style-type: none"> <li>•number of employees in all employee categories</li> <li>years of experience</li> <li>•preparation and advanced degrees</li> <li>•age</li> <li>•mobility</li> <li>•gender</li> <li>•ethnicity</li> <li>•language proficiency</li> </ul>

Organizational Data	Stakeholder Data
<ul style="list-style-type: none"> <li>•curriculum maps</li> <li>•staffing information (all employee groups)</li> <li>•budget information</li> <li>•professional development initiatives</li> <li>•classroom practices inventories</li> <li>•interventions and services inventory</li> <li>•facilities inventory</li> <li>•mission, vision, beliefs, and values</li> <li>•strategic goals and plans</li> <li>•resources inventory</li> </ul>	<p>Perceptions inventories related to parents, community, students, and teachers can include:</p> <ul style="list-style-type: none"> <li>•value of the educational program</li> <li>•expectations and satisfaction related to . . . achievement, school facilities, accessibility to resources, safe and effective environment</li> <li>•student morale inventory</li> <li>•teacher morale inventory</li> <li>•leadership credibility inventory</li> <li>•satisfaction related to professional development</li> </ul>

Graphic Representations of Data	Color-coding or Highlighting								
<ol style="list-style-type: none"> <li>1. <b>Pie charts</b> are best used to display parts or portions of the whole. Try not to use more than six segments. They do not show changes over time.</li> <li>2. <b>Bar graphs</b> are used to compare things between different groups or to track changes over time. However, when trying to measure change over time, bar graphs are best when the changes are larger.</li> <li>3. <b>Line graphs</b> are used to track changes over short and long periods of time. When smaller changes exist, line graphs are better to use than bar graphs. Line graphs can also be used to compare changes over the same period of time for more than one group. They enable the viewer to make projections related to trends and patterns.</li> <li>4. <b>Scatter plots</b> are used to show how much one variable is affected by another variable and usually consist of a large body of data. The closer the data points come to making a straight line, the higher the correlation between the two variables or the stronger the relationship. The x-axis is used to measure one event (or variable) and the y-axis is used to measure the other. If both variables increase at the same time, they have a positive relationship. If one variable decreases while the other increases, they have a negative relationship. Sometimes the variables don't follow any pattern and have no relationship.</li> </ol>	<p>Color-coding or highlighting is used to identify areas where you are interpreting patterns, insight, trends, and other observations.</p> <table border="0" style="width: 100%;"> <tr> <td style="padding-right: 20px;">Pink</td> <td>Advanced/Above Expectations</td> </tr> <tr> <td>Green</td> <td>Proficient/Meets Expectations</td> </tr> <tr> <td>Yellow</td> <td>Below Proficient/Does Not Quite Meet Expectations</td> </tr> <tr> <td>Red</td> <td>Below Expectations/Minimal Proficiency</td> </tr> </table> <p>Other coding techniques</p>	Pink	Advanced/Above Expectations	Green	Proficient/Meets Expectations	Yellow	Below Proficient/Does Not Quite Meet Expectations	Red	Below Expectations/Minimal Proficiency
Pink	Advanced/Above Expectations								
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### 3. Analyzing and Interpreting Data

#### **Types of Statistical Data Analysis**

##### **1. Snapshot Analysis**

This form of analysis focuses on the examination of the spread or distribution of the data. For example, schools may want to examine the percent of students who meet, exceed, or did not meet target standards in a curricular domain. They can identify the overall level of achievement in a subject area.

##### **2. Longitudinal Analysis**

Longitudinal analysis focuses on student achievement results over time.

Schools can examine student reading performance for the last three years.

They can look for trends or patterns of different groups of students for the same grade level over time or may want to examine a cohort group's progress.

##### **3. Multiple Variable Analysis**

This type of data analysis permits schools to examine differences among groups or variables. For example, schools can determine how students with learning disabilities performed in science compared to two years ago. They can also examine performance differences relating to specific demographic variables and participation in a particular program or content area.

##### **4. Interaction Analysis**

This form of analysis is used to examine the relationship between two variables.

Schools can discover if student achievement in reading increases for students who read a specified number of books or if math ACT college entrance exam results and grade point average are related positively.

Darnell, B. (2002). Guide for instructional leaders: Leading instructional environment assessment. Alexandria, VA: Association for Supervision and Curriculum Development.

## **Analyzing Data**

### **Critical Questions**

1. What is the whole picture?
2. What is the school doing to enable students to make progress?
3. Why is performance the way it is?

### **Focus Questions**

1. What are the areas of greatest student academic need you will focus on at the school?
2. What programs/processes/practices will be utilized (and what will be eliminated) in order to implement and maintain the focus?

### **Igniting and Inviting Conversations**

1. Define the purpose of the meeting and communicate the time limit (40-60 minutes or less is ideal for a first session).
2. Focus on a target of student achievement and begin by asking participants to brainstorm evidence of students' strengths. Use a go-around to list the participants' responses.
3. Use the fishbone strategy (see below) to silently brainstorm factors creating low achievement. Use a go-around to list the participants' responses.
4. Identify the most influential factors in each category (curriculum, teacher, organization, learner, parent).
5. Recognize thoughtful analysis and schedule a second meeting

## **Mining Deeper: Analysis and Interpretation of Data**

### **Student Achievement Data Analysis--Looking at the Data**

1. What observations can we make about this data?
2. What does the "all students" data tell us?
3. What do we see when we compare scores within a subgroup?
4. What do we see when we compare scores among subgroups?
5. What do we see when we compare results among the assessments?
6. What trends do we see in this data?

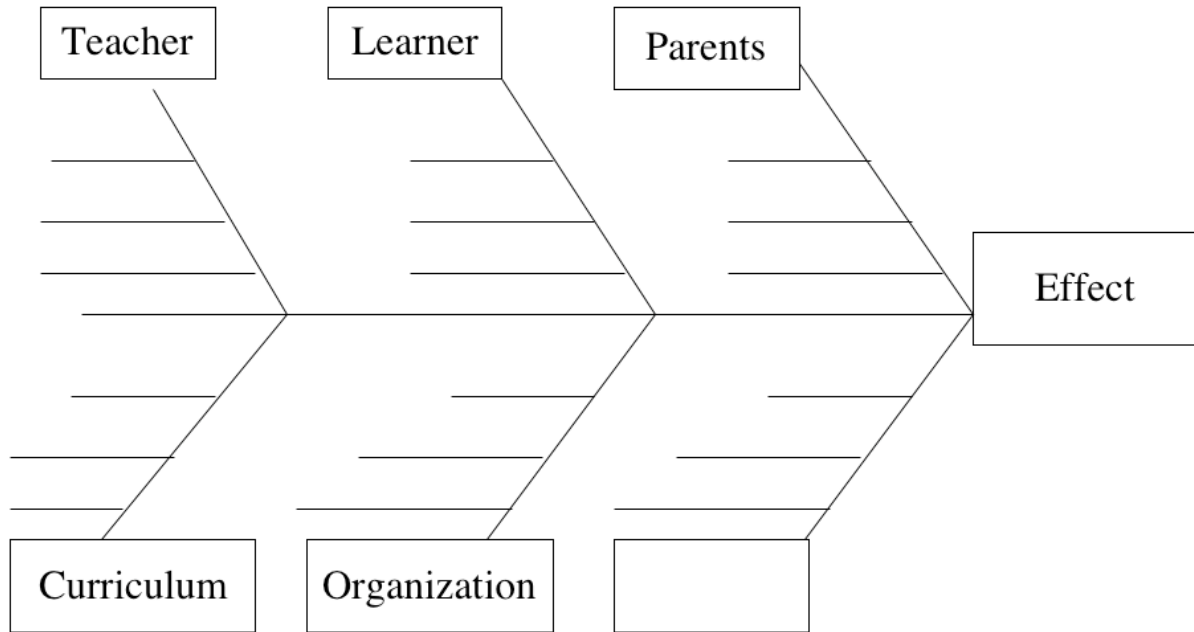
### **Outcome Data Analysis--Determining What the Data Really Means**

1. What data draws our attention?
2. What is unique or unexpected about the data?
3. What preliminary conclusions or generalizations can we draw about this data?
4. What questions are raised by this data?
5. What additional outcome data would we like to have?
6. What other kinds of data would we like to have?

San Diego City Schools: School Self Study Process

### 3. Analyzing and Interpreting Data

#### Analyzing Contributing Factors



**Affinity Diagram**

1. Identify issue or essential question.
2. Silent brainstorm
3. Share ideas
4. Identify categories
5. Turn categories into action steps.

**Essential Questions/Issues for Exploration:**

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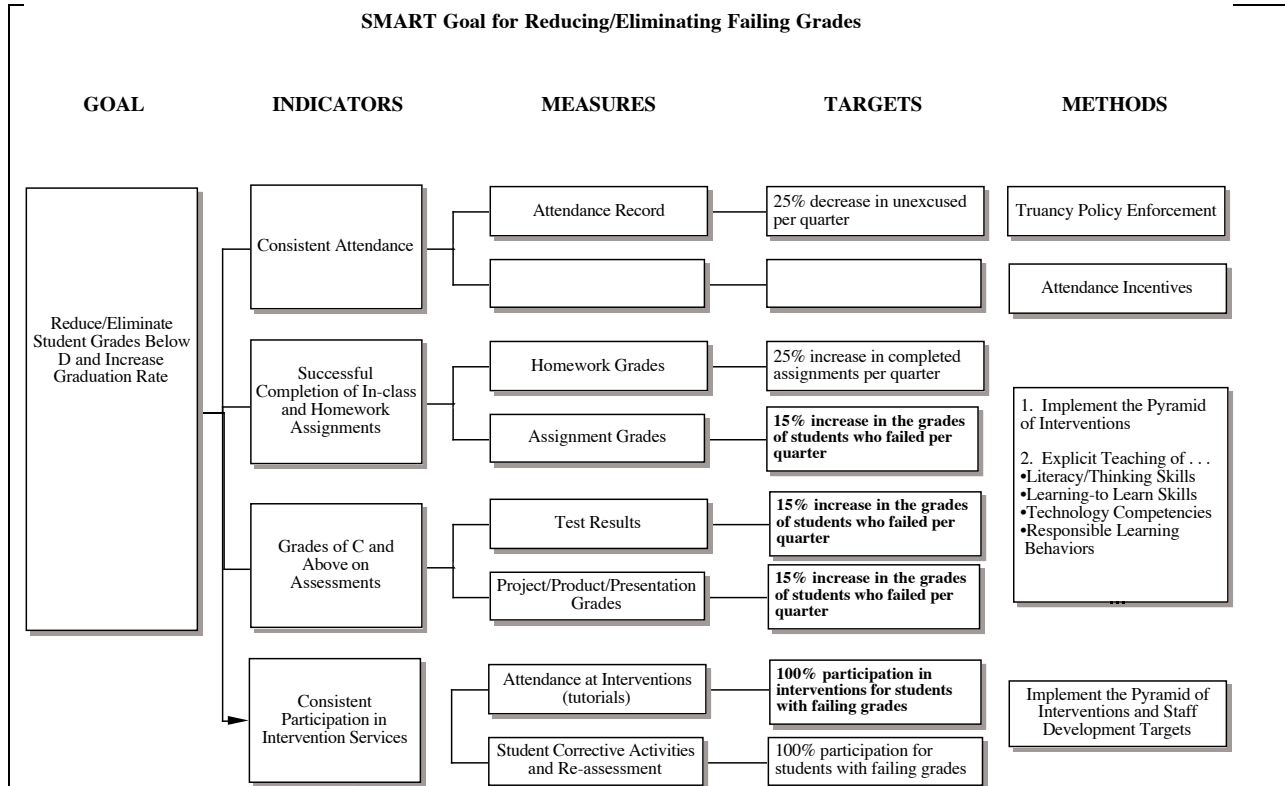
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### 3. Analyzing and Interpreting Data: Hypothesis and Issues

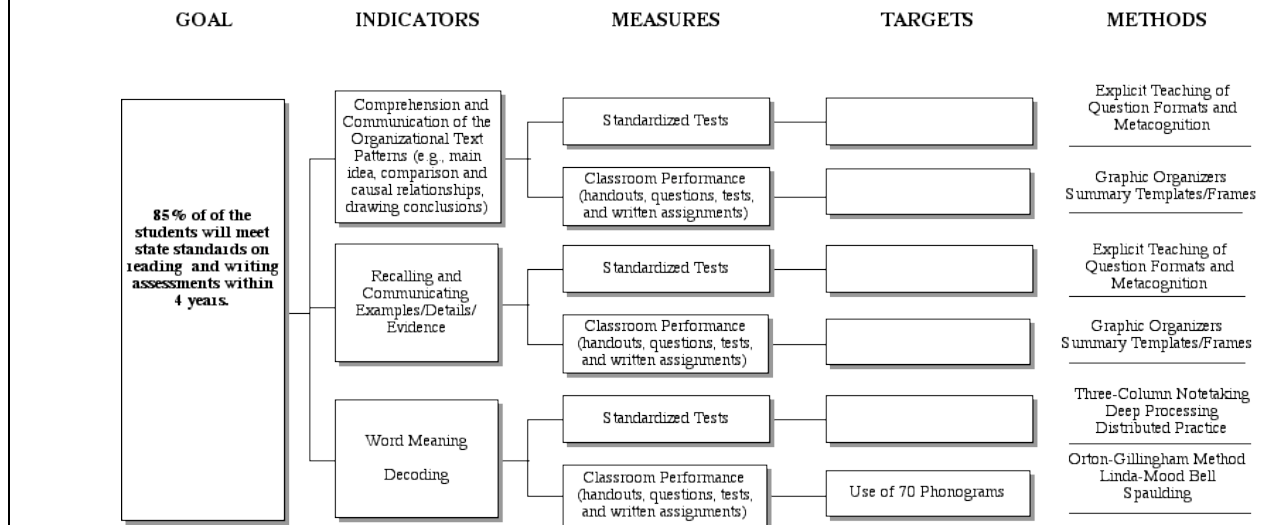
<b>Observations</b>	<b>Hypotheses</b>	<b>Connections</b>
<b>What patterns, problems, or challenges do we observe?</b>	<b>What do we do that might contribute to these patterns?</b>	<b>What could we do in the classroom or school that might improve these data?</b>

## 4. Using the Data

<p><b>Establish SMART improvement goals.</b></p>	<p><b>S=</b> Strategic and Specific  <b>M=</b> Measurable  <b>A=</b> Attainable  <b>R=</b> Results-based  <b>T=</b> Time-bound          The Power of SMART Goals: Using Goals to Improve Student Learning (O'Neill &amp; Conzemius, 2006)</p>
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**Helping Teams Make Their Goals SMARTer  
Literacy SMART Goal**



## 4. Using the Data

### Professional Needs Assessment: What do you need to learn and be able to do?

#### Curriculum

- \_\_\_1. Map the curriculum and align it to state and district standards.
- \_\_\_2. Apply a process for identifying, writing, and evaluating learner objectives/targets.
- \_\_\_3. Design curriculum that integrates content from a number of disciplines.
- \_\_\_4. Design instructional units to actively engage students in the learning process.

#### Instruction

- \_\_\_5. Create and use a broad range of instructional design frameworks individually and in collaboration with others.
- \_\_\_6. Use a variety of research-based instructional strategies and practices to engage students in the learning process.
- \_\_\_7. Differentiate instruction to meet the learning needs of diverse student learners.
- \_\_\_8. Develop and use activities for explicitly teaching, modeling, and reinforcing literacy and learning-to-learn skills/strategies.
- \_\_\_9. Apply strategies and utilize appropriate resources to increase the achievement of special needs students and linguistically diverse students (i.e., special education, ELL, and at-risk students).
- \_\_\_10. Integrate technology with instruction to increase student achievement and to teach technology literacy.
- \_\_\_11. Apply engaging strategies to explicitly teach discrete, essential content knowledge and skills and be able to integrate the knowledge and skills with other disciplines.

#### Assessment

- \_\_\_12. Develop, adopt, and use a broad range of assessment strategies and tools for assessing student learning.
- \_\_\_13. Individually and collaboratively use classroom and standardized assessment data to enhance instructional decision making, instructional delivery, and assessment.
- \_\_\_14. Select, create, and use rubrics, checklists, and rating scales to guide students' work and to evaluate the achievement of stated learning objectives.
- \_\_\_15. Give students feedback and encourage them to use self-assessment strategies and to help them reflect about their progress toward the learning objectives, the effectiveness of their learning strategies, and make improvement goals and adjustments.

#### Professional Needs: Learning Environment

- \_\_\_16. Develop and apply behavior management systems and strategies for addressing student misconduct.
- \_\_\_17. Apply problem-solving strategies individually and in collaboration with others.
- \_\_\_18. Select, create, and use student support programs to expand learning opportunities and provide academic (e.g., writing and assessment centers, counseling services, mentor programs) and behavioral interventions (e.g., problem-solving remediation, explicit behavior instruction)

#### Establishing School-Parent/Guardian Supportive Relationships

- \_\_\_19. Apply strategies and techniques for developing and maintaining effective communication with parents/guardians and supportive parent-school partnerships.

#### Professional Learning Teams/Communities

- \_\_\_20. Apply protocols and techniques for enhancing the effectiveness of teacher professional learning teams/communities and collaborative planning.
- \_\_\_21. Apply strategies for looking at student work, determining goals for improvement and for taking corrective action.

## Improving Learning and Performance Through Professional Development

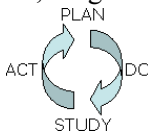

National Staff Development Council Standards	Professional Development Opportunities
<ul style="list-style-type: none"> <li>•Results-driven</li> <li>•Standards-based</li> <li>•Job embedded</li> <li>•Content rich</li> <li>•Entire school</li> </ul> <p>What works in staff development?</p> <ol style="list-style-type: none"> <li>1. Create and maintain on-going programs.</li> <li>2. Use time for knowledge acquisition and guided practice for skill development.</li> <li>3. Provide coaching (peer and supervisor).</li> <li>4. Create usable products with job-alikes.</li> <li>5. Increase access to colleagues.</li> <li>6. Recognize and support implementation and progress.</li> <li>7. Staff choose personal learning goals.</li> <li>8. Link programs to personal needs and school improvement goals.</li> <li>9. Build in monitoring/evaluation.               <ul style="list-style-type: none"> <li>•program evaluation</li> <li>•self-assessment</li> <li>•department head/supervisor coaching</li> </ul> </li> </ol>	<ul style="list-style-type: none"> <li>•action research</li> <li>•assessment</li> <li>•case studies</li> <li>•critical friend group</li> <li>•curriculum development</li> <li>•data for analyzing schools</li> <li>•examining student work</li> <li>•journaling</li> <li>•immersion</li> <li>•lesson study</li> <li>•listening to students</li> <li>•mentoring</li> <li>•networks</li> <li>•peer coaching</li> <li>•portfolios</li> <li>•school coaching</li> <li>•shadowing students</li> <li>•study groups</li> <li>•training of trainers</li> <li>•tuning protocols</li> <li>•walk throughs</li> <li>•training on specific strategies and approaches</li> </ul> <p>Journal of Staff Development on Powerful Designs--Summer 1999. Powerful Designs. Fall 2003.</p>

### Assessing the Impact of Professional Development

Types of Change	Definition
<b>Knowledge (understand)</b>	Conceptual understanding of information, theories, principles, and research
<b>Attitude (believe)</b>	Beliefs about the value of particular information or strategies.
<b>Skills (employ)</b>	Strategies and processes to apply knowledge
<b>Aspiration (desire)</b>	Desires, or internal motivation, to engage in a particular practice
<b>Behavior (behave regularly)</b>	Consistent application of knowledge and skills

Source: Killion, Joellen. Assessing Impact: Evaluating Staff Development 2002). Oxford: Ohio, NSDC.

## 4. Using the Data: Strategic Planning

<ol style="list-style-type: none"> <li>1. How does your school/district engage in strategic planning? Who is involved?</li> <li>2. How are stated strategic objectives communicated to the organization's stakeholders with a timetable for accomplishing them?</li> <li>3. How do you develop and deploy action plans?</li> </ol>	<p>An effective strategic planning process includes representatives from all stakeholder groups and considers the following: the organization's strengths, weaknesses, opportunities, and threats; trends and upcoming educational reforms and shifts; long term sustainability; and the ability of the organization to execute the plan.</p> <p><b>Deming Cycle of Continuous Improvement (PDSA)</b>  <b>PLAN:</b> plan ahead for change. Analyze and predict the results.  <b>DO:</b> execute the plan, taking small steps in controlled circumstances.  <b>STUDY:</b> CHECK, study the results.  <b>ACT:</b> take action to standardize or improve the process</p> <div style="text-align: right;">  </div> <div style="text-align: center; margin-top: 20px;">  </div> <p style="text-align: left; margin-top: 10px;">Darnell ©2000</p>
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<b>INSTRUCTION</b>
9. Develop instructional delivery approaches for challenged learners that will increase their achievement in the general education mainstream curriculum.
10. Implement strategies and practices related to engaged learning and differentiation of instruction.
11. Implement strategies and practices that increase student achievement related to reading, writing, and thinking skills across the curriculum.
13. Implement strategies and practices that increase student achievement related to math knowledge and skills across the curriculum.

<b>PROFESSIONAL DEVELOPMENT</b>
16. Implement professional development training and support activities focused on: technology integration, explicit skill instruction, literacy instruction, curriculum alignment, unit design, project-based learning, formative and summative assessment, poverty, and practices which promote acceptance and respect of a diverse student body.
17. Implement professional training and support activities that encourage collaborative analysis of student work, planning, and direct services/ teaching (e.g., co-teaching, core teams, interdisciplinary teaching).
19. Create and implement an induction and mentoring program and support services for support staff (e.g., clerical, security, classroom paraprofessionals, technical staff, custodial staff).

**5. Implementing Improvement Initiatives, Monitoring and Evaluating Progress, and Making Adjustments**

**A Collaborative Process to Improve Student Achievement and Teacher and Organizational Effectiveness**

**Professional Learning Team Meeting Plan**

<b>Meeting</b>	<b>Activities</b>
<b>1</b>	<ul style="list-style-type: none"> <li>•Discuss the purpose of the PLC meetings.</li> <li>•Create/select and adopt norms and expectations for team members.</li> <li>•Identify essential student learning objectives (i.e. knowledge, skills, behaviors, attitudes).</li> </ul>
<b>2</b>	<ul style="list-style-type: none"> <li>•Engage in collaborative examination of student work and achievement.</li> <li>•Identify contributing factors producing current results (e.g., teachers, students, organization, curriculum, parents, etc.).</li> </ul>
<b>3</b>	<ul style="list-style-type: none"> <li>•Establish improvement goals (SMART goals) based upon the greatest areas of learning needs (GAN).</li> <li>•Become knowledgeable about research-based, best practices and correlate them to current practices.</li> </ul>
<b>4</b>	<ul style="list-style-type: none"> <li>•Add to the methods sections of the SMART goals.</li> <li>•Create an implementation plan including objectives, timeline, expectations, and monitoring and adjustment strategies.</li> <li>•Select professional needed/desired professional development.</li> </ul>
<b>5</b>	<ul style="list-style-type: none"> <li>•Create units, lessons, resources, and assessments to use during implementation.</li> <li>•Participate in professional development.</li> </ul>
<b>Note</b>	It may take more than one session to accomplish the objectives in #5 above.
<b>6</b>	<ul style="list-style-type: none"> <li>•Take decisive actions to increase student achievement.</li> <li>•Monitor implementation, discuss progress, and make necessary changes.</li> <li>•Determine what the team is learning.</li> </ul>
<b>7</b>	<ul style="list-style-type: none"> <li>•Determine what the team is learning.</li> <li>•Recognize and celebrate progress.</li> </ul>
	<b>Begin the cycle again.</b>

**PROFESSIONAL LEARNING COMMUNITY  
TEAM NORMS AND COMMITMENTS**

<b>WHEN ESTABLISHING NORMS, CONSIDER:</b>	<b>PROPOSED NORMS AND COMMITMENTS:</b>
<b>TIME</b> <ul style="list-style-type: none"> <li>•When do we meet?</li> <li>•Will we set a beginning and ending time?</li> <li>•Will we start and end on time?</li> </ul>	<b>WE WILL START THE MEETING WITH ALL MEMBERS PRESENT AT _____</b> <b>WE WILL REMAIN IN THE MEETING</b> until it ends at _____.
<b>LISTENING</b> <ul style="list-style-type: none"> <li>•How will we encourage listening?</li> <li>•How will we discourage interrupting?</li> </ul>	<b>WE WILL INVITE AND WELCOME</b> the contributions of every member and listen to each other.
<b>CONFIDENTIALITY</b> <ul style="list-style-type: none"> <li>•Will the meetings be open?</li> <li>•Will what we say in the meeting be held in confidence?</li> <li>•What can be said after the meeting?</li> </ul>	<b>WE WILL KEEP CONFIDENTIAL</b> our discussions, comments, and deliberations with the exceptions of required meeting minutes.
<b>DECISION MAKING</b> <ul style="list-style-type: none"> <li>•How will we make decisions?</li> <li>•Are we an advisory or a decision-making body?</li> <li>•Will we reach decisions by consensus?</li> <li>•How will we deal with conflicts?</li> </ul>	<b>WE WILL WORK TOGETHER</b> as a community that values consensus rather than majority rule. <b>WE WILL BE RESPONSIBLE</b> for examining all points of view before a consensus is accepted. <b>WE WILL BE GUIDED BY</b> the school mission, vision, parameters, policies, and procedures.
<b>PARTICIPATION</b> <ul style="list-style-type: none"> <li>•How will we encourage everyone’s participation?</li> <li>•Will we have an attendance policy?</li> </ul>	<b>WE WILL BE INVOLVED</b> to our individual level of comfort with a goal of balanced participation.
<b>EXPECTATIONS</b> <ul style="list-style-type: none"> <li>•What do we expect from members?</li> <li>•Are there requirements for participation?</li> </ul>	<b>WE WILL BE FULLY “PRESENT”</b> at the meeting by becoming familiar with materials before we arrive and by being attentive to behaviors which affect physical and mental engagement. <b>WE WILL CREATE AN AGENDA</b> in collaboration with our supervisor and submit minutes from the meetings. <b>WE WILL ENGAGE IN GROUP ACTIVITIES</b> that will focus on increasing student achievement.
<b>ATMOSPHERE/CLIMATE</b>	<b>WE WILL OPERATE</b> in a collegial and friendly atmosphere. <b>WE WILL BE RESPONSIBLE</b> for airing disagreements during the meeting rather than carrying those disagreements outside the meeting.

*Source: Keys to successful meetings by Stephanie Hirsh, Ann Delehant, and Sherry Sparks. Oxford, Ohio: National Staff Development Council, 1994.*

## Questions to Ask When Examining Student Work

<p style="text-align: center;"><b>1. Describe</b></p> <ul style="list-style-type: none"> <li>•What knowledge and skills are assessed?</li> <li>•What kinds of thinking are required (e.g., recall, interpretations, evaluation)?</li> <li>•Are these the results I (we) expected? Why or why not?</li> <li>•In what areas did the student(s) perform best?</li> <li>•What weaknesses are evident?</li> <li>•What misconceptions are revealed?</li> <li>•Are there any surprises?</li> <li>•What anomalies exist?</li> <li>•Is there evidence of improvement or decline? If so, what caused the changes?</li> </ul>	<p style="text-align: center;"><b>2. Interpret</b></p> <ul style="list-style-type: none"> <li>•What does this work reveal about student learning and performance?</li> <li>•What patterns are evident?</li> <li>•What questions does this work raise?</li> <li>•Is this work consistent with other achievement data?</li> <li>•Are there different possible explanations for these results?</li> </ul>
<p style="text-align: center;"><b>3. Evaluate</b></p> <ul style="list-style-type: none"> <li>•By what criteria am I (are we) evaluating student work?</li> <li>•Are these the most important criteria?</li> <li>•How good is “good enough” (the performance standard)?</li> </ul>	<p style="text-align: center;"><b>4. Identify Improvement Actions</b></p> <ul style="list-style-type: none"> <li>•What teacher actions are needed to improve learning and performance?</li> <li>•What student actions are needed to improve learning and performance?</li> <li>•What systemic actions at the school/district level are needed to improve learning and performance (such as changes in curriculum, schedule, grouping)?</li> </ul>

Wiggins, G. and McTighe, J. (2007) *Schooling By Design*. Alexandria, VA: ASCD.

### Sample of a Data-Driven Improvement Planning Worksheet

**Based on an analysis of achievement data and student work . . .**

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- What patterns of weaknesses are noted?
- What specific areas are most in need of improvement?

1. Problem solving and mathematical reasoning are generally weak.
2. Students are not effectively explain their reasoning and their use of strategies.
3. Appropriate mathematical language is not always used.

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**What specific improvement actions can we take?**

1. Increase our use of “non-routine” problems that require mathematical reasoning.
2. Explicitly teach (and regularly review) specific problem solving strategies.
3. Develop a poster of problem solving strategies and post it in each math classroom.
4. Increase the use of “think-alouds” (by teacher and students ) to model mathematical reasoning.
5. Develop a “word wall” of key mathematical terms and use the terms regularly.
6. Revise our problem-solving rubric to emphasize explanation and use of mathematical language.

<p style="text-align: center;">Student Work Gallery 1: Looking At Student Work</p> <p>View the student work of your colleagues for 3 minutes.</p> <ol style="list-style-type: none"> <li><b>1. What were the qualities of student work that made it an excellent product? (1 minute per participant)</b></li> <li><b>2. What is an insight you gained about the student work you brought? (1 minute per participant)</b></li> <li><b>3. What did you learn or what insights did you gain from looking at student work? (1 minute per participant)</b></li> </ol> <hr style="border: 1px solid black; margin: 10px 0;"/>	<p style="text-align: center;">Success Analysis Activity (2 minutes of uninterrupted time for each person to speak about questions 1-3)</p> <ol style="list-style-type: none"> <li><b>1. The purpose of the lesson was to have students acquire the following concepts and skills.</b></li> <li><b>2. During the time when the students were completing their graphic organizers and/or summaries, I observed the following . . . (e.g., engagement, understanding, behavior)</b></li> </ol> <p>Use the student work you brought to illustrate the progress and challenges, and achievement gaps evident in the student work.</p>
<p style="text-align: center;">Student Work Gallery 2: Looking At Student Work</p> <p>View the student work of your colleagues for 3 minutes.</p> <ol style="list-style-type: none"> <li><b>1. What do you wonder about or what questions does the work your colleagues brought raise for you? (1 minute of uninterrupted time per participant)</b></li> <li><b>2. What will you do differently or what change in practice will you make to improve student skills related to the use of specific graphic organizers and summaries? (1 minute of uninterrupted time per participant)</b></li> </ol>	<ol style="list-style-type: none"> <li><b>3. In what way(s) is the quality of this work different from the first samples you saw at the beginning of the reading/thinking improvement initiative? What promising results are you witnessing?</b></li> </ol> <hr style="border: 1px solid black; margin: 10px 0;"/> <p style="text-align: center;">Problem/Dilemma Protocol</p> <ol style="list-style-type: none"> <li><b>1. Each participant in the trio takes 1 minute to review the poorest quality work that they brought with them or others that they recall from their students. They complete the following sentence</b></li> </ol> <p>A problem that students continue to illustrate in their graphic organizers or summaries is . . .</p> <ol style="list-style-type: none"> <li><b>2. Each person presents their dilemma for one minute.</b></li> <li><b>3. Group members listen and ask questions or make suggestions about the problem/dilemma.</b></li> <li><b>4. The person who originally presented their dilemma then finishes the sentence below.</b></li> </ol> <p>An action that I can/will take to increase students achievement related to reading, writing, and thinking will be to . . .</p> <ol style="list-style-type: none"> <li><b>5. Repeat 1-4 for each of the 3 group members.</b></li> </ol>

# 12 Things Leaders Can Do to Support Efforts to Increase Achievement

## The Art of Meaning Business

- \_\_\_ 1. Publish the learning improvement commitments of staff and assure that the staff understand the relationship between the targeted professional learning topics and the success of the staff development initiative.
- \_\_\_ 2. Expect implementation of the practices that are the focus of the staff development initiative.
- \_\_\_ 3. Use “walk-throughs” and observations to determine the degree to which the practices and strategies are implemented and the services (e.g., tutorials, correctives, re-assessment opportunities) are provided.
- \_\_\_ 4. Create and support frequent opportunities for staff members to review student work, solve problems, discuss progress, and celebrate success.
- \_\_\_ 5. Talk to each staff member about their students' progress and ask them to show you examples of their students' work.
- \_\_\_ 6. If you are a teaching leader, show staff members your students' work, discuss progress, and share your challenges and successes.
- \_\_\_ 7. Conduct, locate, and support professional learning opportunities that teach strategies and practices related to the staff development initiatives.
- \_\_\_ 8. Create parent communication and school support activities to teach parents how to support their children's learning at home.
- \_\_\_ 9. Create portfolios of assignments and artifacts related to exemplary implementation of the targeted improvement practices and strategies.
- \_\_\_ 10. Support peer-observation opportunities where staff members can observe each other using the strategies and tools that are part of the staff development initiative.
- \_\_\_ 11. Create opportunities for student leaders (e.g., co-curricular teams and clubs, student council, peer tutors) in the improvement efforts.
- \_\_\_ 12. Conduct action research projects to determine the impact the targeted practices/ strategies are having on student learning.

## Walk-Throughs

Here's what administrators are supposed to look for during **three-minute** walk-throughs. Some points take several visits to assess.

### STUDENTS

- Are students engaged in the work?
- Does the teacher have control of classroom behavior?

### TEACHING

- Is the teacher engaged with the students?
- Does the teacher use a variety of strategies, such as hands-on work and small group discussions, to keep students interested?
- Does the teacher tailor approaches so all students can tackle high-level lessons?

### LESSONS

- Does the lesson match the state curriculum?
- Is it teaching students to analyze and think critically, or just giving them information?
- Do students have various ways, such as writing, speaking in class and taking tests, to show whether they're getting the lessons?

### WALLS

- Is that day's objective posted in language students can understand?
- Do bulletin boards and displays show a focus on learning?

### SAFETY

- Does anything endanger student health or safety? Such problems, which might include science experiments done without proper equipment, should be dealt with immediately.

### Pre-Walkthrough Planning

1. What is the purpose of the walk-through?
2. Who will participate in the walk-through?
3. Where will it take place? What School? Which Classrooms?
4. How will you inform and notify all relevant parties?

### During the Walkthrough

5. Spend enough time in each classroom to gather data
6. Look for evidence that supports – or not – the Focus Question (student work on display, work students are engaged in, student work in portfolios, teacher questions, student responses). If student work is not on display, what is on the classroom walls and display boards?
7. Interact with students

### After the Walkthrough

8. How will feedback be provided? Will the feedback be given to the principal? Will feedback be provided to a school team? Will feedback be provided to all staff? Who will facilitate the feedback session?
9. Thank teachers for the opportunity to walk-through and provide some feedback.
10. Meet with a team to discuss next steps.