STANDARDS ASSESSMENT INVENTORY

Recommendations: Data Standard

This resource brief is designed to support next actions for those educators who are using their results from the Standards Assessment Inventory to improve professional learning. This brief includes an overview of the Data standard, next steps for continuous improvement in three categories, and tools and readings that support improvement in each of those categories.

With support from

MetLife Foundation
Data standard overview

Professional learning that increases educator effectiveness and results for all students uses a variety of sources and types of student, educator, and system data to plan, assess, and evaluate professional learning.

Many forms of data are required to set goals for, plan, monitor, and evaluate professional learning. Even a cursory review of the cycle of continuous improvement (see the Learning Communities standard) reveals an extensive use of data throughout the process. Beyond standardized student achievement data, many other rich sources of information are needed to clarify student and educator learning needs, plan collaborative professional learning, monitor progress, and evaluate outcomes. The Data standard focuses on three critical elements: (1) analyzing student, educator, and system data, (2) assessing the progress of professional learning content and process, and (3) evaluating professional learning results.

Analyze student, educator, and system data. The first step within the cycle of continuous improvement is to use data to identify educator and student learning needs. This data analysis determines individual, team, school, and system professional learning goals. Student data include a variety of formal and informal summative and formative assessments, such as benchmark assessments, end-of-course exams, classroom assessments, and daily classroom work. Most educators agree that using multiple data sources to determine what students need to learn, rather than relying on a single data point, results in a fuller, richer picture of student learning. The view can be enriched even more by using student demographics, attendance, behavior and discipline, and perception data.

Once student learning needs are identified, decisions about educator professional learning goals occur next. Again, a variety of data are needed. Educator professional learning goals—needed to determine learning designs—are defined through the analysis of educator preparation, on-the-job-performance, perceptions; client results; and individual learning goals.

Finally, analysis of system data provides evidence about whether changes are needed in policy, procedures, fiscal resources, human resources, time, or technology to support school,
team, or individual professional learning plans. Student and educator learning can be implemented and sustained when the system adjusts its processes and procedures to support the desired changes at the school and classroom levels. For example, does the district support and work through changes in transportation, school-day and annual calendar, contracts, and the development of teacher leaders to facilitate learning teams? System administrators might need to examine the relationships among inputs, outputs, and outcomes to determine whether there are changes within the system that need to occur to sustain the improvement efforts.

**Assess progress.** The cycle of continuous improvement also involves monitoring progress against established benchmarks. Monitoring provides the opportunity to make alterations in content, process, or learning designs over the course of the learning process—from gaining knowledge through implementation. This is sometimes referred to as making midcourse corrections. Slight adjustments may be needed, unforeseen barriers might appear, or the loss of key personnel might require modifications to the professional learning plan. Data that assess progress allow teams, schools, and the system to make those alterations and address challenges before they become obstructions to change.

Teams assess progress by collaboratively designing, scoring, and analyzing student work. The school leadership team monitors the implementation of designated practices and the impact of those practices on student learning. Monitoring creates evidence of improvement while also providing an early warning system to detect obstacles. Its ultimate purpose is to increase the desired results for students, educators, and systems.

**Evaluate professional learning.** The last step of the cycle of continuous improvement is evaluating results. During evaluation, the goal is to improve the quality and effectiveness of professional learning by answering questions such as, Have the educators adopted new practices consistently in the classroom? Have the new classroom practices resulted in the accomplishment of the student learning goal? If not, why not? What might need to be done differently to accomplish the desired results?
A summative evaluation of professional learning goes beyond considering whether educators enjoyed an event or found the new information worthwhile. Instead, the evaluation consistently focuses on results—desired results created during the first step of the cycle of continuous improvement. Internal or external evaluators can conduct evaluations of professional learning; many grants require external evaluation. Whether the evaluation is performed by an internal or external person, it must follow a rigorous process established by international standards, including an examination of inputs, outputs, and outcomes.

Depending on the audience, the evaluation might focus on different areas. For example, policymakers might want to know if their investment in professional learning has contributed to changes in student achievement. System leaders might want to know whether new schedules that added time for teacher collaboration made a difference in teachers’ classroom practices. Teachers might want to know whether their use of new instructional strategies and curriculum increased learning with special-needs students. Along with focusing on these results, the evaluation might also make recommendations concerning future professional learning designs or support systems.

**Next steps for continuous improvement**

There are a number of actions to take to improve the school’s use of data for planning, monitoring, or evaluating professional learning. These strategies are provide in three sections—1) **Developing**—Ideas to begin developing or expanding the use of data; 2) **Strengthening**—ideas to strengthen or enhance current data use; and 3) **Comprehensive**—ideas that might be helpful for any school’s use of professional learning data.

*The tools listed under each strategy follow this narrative of actions and strategies, and are included in this packet.*
Developing

1. As a result of state and federal accountability programs, many schools examine and analyze only state assessment results, yet looking at only one source of data provides a limited view of what is occurring in the school. Leadership teams should determine which other sources can be analyzed to provide a fuller picture of what is occurring. Alternatively, many schools may need to sift through and eliminate some of the data they analyze. The goal is to determine which data provide the most useful information that helps to make instructional, curricular, and professional development decisions.

   • *JSD*. (2008, Fall). This issue is devoted to the use of data. Access the issue online at www.learningforward.org/publications/jsd/jsd-blog/jsd/2012/06/30/fall-2008-vol-29-no-4.

2. Being able to transform data into useful information for decision making takes particular knowledge and skills. All staff members need to learn how to use and analyze student data as well as other types of data. Leadership teams can compile a collection of data analysis tools that administration and faculty can use to assess student learning as well as other data. In addition, they can create a plan for supporting educators’ use of these analysis tools.

• *JSD.* (2008, Fall). This issue is devoted to the use of data. Access the issue online at [www.learningforward.org/publications/jsd/jsd-blog/jsd/2012/06/30/fall-2008-vol-29-no-4](http://www.learningforward.org/publications/jsd/jsd-blog/jsd/2012/06/30/fall-2008-vol-29-no-4).

• “Put data through their paces,” by Joellen Killion. (2008, September). *Teachers Teaching Teachers,* 4 (1), 7-8. Educators need to know how to use data effectively to make a difference.


3. A beginning step in developing a professional learning evaluation plan is to identify the specific knowledge, skills, and behaviors educators (and administrators) are expected to know and be able to do as a result of professional learning. Leadership teams clarify what information to collect during as well as at the end of professional learning work. The resources below will provide background information to support the leadership team’s work.


**Strengthening**

1. Creating a plan for schoolwide or team-based professional learning is only the first step. It is also necessary to monitor the effectiveness of that plan by continuously collecting
data on whether the plan has accomplished the intended outcomes and produced the desired results. This can be done incrementally using formative assessments to provide useful information for making adjustments to the plan. The principal and school leadership team should establish a plan for schoolwide professional learning, then assist grade-level or content-area teams to establish a plan for the collection and analysis of this data.

- *Tools for Schools*. (2000, August/September). This issue is devoted to using data to measure progress toward achieving visions.

2. Learn how to use classroom walk-throughs. Walk-throughs are brief classroom visits that collect information about classroom practices; they can be conducted by teams composed of administrators and educators. This strategy has multiple strengths, including the collection of evaluation data and increased teacher commitment to professional development. The information gathered can be used to plan professional development next steps.

issues are devoted to walk-throughs as a strategy for collecting data about a school’s success in achieving its goals.


3. An initial step in planning a professional development evaluation is to develop a theory of change. This tool helps to identify major components of a program as well as the sequence of activities. It also spells out underlying assumptions and describes how people will be supported throughout the change process. Learn about and then develop a theory of change for professional development initiatives.


• “8 smooth steps: Solid footwork makes evaluation of staff development programs a song,” by Joellen Killion. (2004, Fall). JSD, 24 (4), 14-26. (Tool included in Developing section of this packet.)


Comprehensive

1. Student work is a powerful form of data. Develop teachers’ use of protocols as a primary tool for examining student work. The results of student work analysis can be used to improve classroom instruction, curriculum, and assessment.

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2. School leadership teams will want to learn more about how to use data to monitor progress toward improvement goals and determine whether the desired results have been achieved. Formative evaluation is designed to improve program elements and suggest midcourse corrections needed to accomplish identified goals. Summative evaluation is designed to determine whether the desired outcome for professional learning has been accomplished. The first step for both is to develop a comprehensive professional learning evaluation plan. This plan includes formative and summative evaluation results, timelines, evidence to collect, and expected results. Learn more about evaluating professional learning and create a plan that identifies both formative and summative outcomes.

• “8 smooth steps: Solid footwork makes evaluation of staff development programs a song,” by Joellen Killion. (2004, Fall). JSD, 24 (4), 14-26. (Tool included in Developing section of this packet.)
• Tools for Schools. (2000, October/November). This issue is devoted to using data to improve instruction and student learning.

3. To help school staff better understand this standard, examine the Innovation Configuration maps for Learning Forward’s Standards for Professional Learning. The IC maps provide desired outcomes for every standard as well as a continuum of practice related to that outcome. Staff members should read the continuums and come to consensus about which level best describes the current practices within the school. This
information can be used in building an improvement plan by examining the next level of practice. This study and conversation will also help to clarify, in very practical terms, the roles and responsibilities of teachers and administrators concerning their use of data.


STANDARDS ASSESSMENT INVENTORY

Recommendations: Data Standard

Tools to support DEVELOPING strategies
The Numbers Game
Measure progress by analyzing data

By Joan Richardson

If a district or a single school has a vision of what it wants to be, the use of data can be a powerful tool to measure its progress along the way.

Sylvie Hale has seen the power of using data in that way. “Schools have to collect data to make sure they’re on target. Data do not lie,” she said.

Ask Hale, senior research associate at West Ed, for an example of how using data guided a school to fulfill its vision and she’s ready with a handful of stories. This is one of her favorites:

A rural California school district had a goal of ensuring that all children would read at grade level by 3rd grade. Teachers in one school were quite discouraged because many 1st and 2nd graders were reading below grade level. How could they meet the district goal if children were falling behind so early?

Teachers quickly decided that the school needed a new reading program.

Hale and other consultants from a regional assistance center urged the school to look over its data very closely. Perhaps the school would discover that the curriculum wasn’t the only reason students were struggling with reading.

After receiving some preliminary school data, teachers discovered that a majority of kindergartners had been absent for more than half the year. That must mean that parents don’t care enough about education to get them to school, teachers concluded.

The consultants pushed them to look at other possible explanations for missing school.

The teachers talked with parents of students with high absenteeism and learned that these children rode a bus to school but that the district provided no bus transportation to take them home at the end of their half-day in school. The buses were needed to transport high school students and the district did not want to mix high schoolers with kindergartners. Working parents or parents who relied on others for after-school transportation frequently kept children home rather than deal with the transportation hassle.

Clearly, the reading curriculum was not at fault. When providing transportation for these kindergartners turned out to be financially unfeasible, the teachers explored other options.

By the next school year, the school created an...

Continued on Page 2
Measure progress by analyzing data

Continued from Page One
extended day kindergarten. Money for a remedial reading program was diverted to pay for extra teacher hours. At last report, the reading of these students was improving.

What’s the lesson? “Check your assumptions at the door,” said Hale.

“I don’t think that’s an uncommon story. We all make quick assumptions. Instead, we need to look at data, generate questions and find answers. Data keep you honest,” she said.

A DATA PLAN

Let’s assume that district’s vision includes a statement that all children will read at grade level by 3rd grade and remain at grade level every year thereafter. How could you use data to measure your progress towards achieving that vision?

Collect basic information. Every school should maintain basic data on student demographics and achievement. See the Student Data Checklist on Page 3 for a guide to collecting information that will give you a snapshot of students in your school.

Break down this information by grade. Keep the original data available so you can cross-reference it with other data in later steps.

Identify additional data. To check on students’ reading ability in your school, what data will you need to collect?

To measure academic performance, a school would probably collect, at a minimum, standardized test scores, grades, and classroom assessments. You should always collect at least three types of data for any study.

Identify who will be responsible for collecting this data and set a date for finishing this task.

Disaggregate the data. Assemble the academic performance data and disaggregate it according to the characteristics collected under Step One. At a minimum, you should break down each type of data by gender, race, socio-economic factors, attendance, mobility, discipline issues, and English language ability.

Use the Data Summary Sheet on Page 5 for this process. Prepare one sheet for each type of data you collect.

Analyze the data. After you’ve filled out the Data Summary Sheets, begin to ask questions about that data.

What is the lowest performing group? What is the highest performing group? Are boys and girls performing equally well in reading? Are there dips in reading achievement between different grades? If so, which grades? What are the reading levels of various language groups? Do different socio-economic groups have different reading levels? Are reading levels similar between various racial and ethnic groups?

Summarize the data. Describe in a statement what the data tells you. These statements can be called either data summary statements or needs statements. See sample statements on Page 4.

In this step, the school team is trying to identify the problem, not solve it. This forces individuals to spell out what they see and not fall back on assumptions, Hale said. Write one statement or write a dozen summary statements, depending on your observations.

At this stage, avoid the urge to brainstorm solutions. That step will come later. For now, concentrate on simply describing your observations.

Brainstorm causes. Once a school team has objectively evaluated the data, the next step is to suggest possible explanations.

What’s going on instructionally? What’s going on with the curriculum? Where are the gaps? Why do these gaps exist?

“If you’re not getting the results you want, there’s dissonance somewhere. Where is the dissonance?” Hale asks.

For example, a staff may suggest that the curriculum is not aligned with the assessment or that teachers lack sufficient training to implement the curriculum appropriately.

Collect more data. After the team has suggested explanations for blips in the data, the next step is to collect more data to determine which explanations are most accurate.

For example, if the team hypothesizes that the curriculum has not been implemented completely, the team might survey teachers about their practices as well as observe relevant classes.

Analyze and summarize data. As it did with the student data, the team now analyzes the data it has collected regarding instruction and curriculum.

The team repeats the process of writing objective statements about the data it has collected.

Identify a goal. After the data has been analyzed and summarized, the team now needs to identify its goals. See Page 6 for a tool to help with this.

Write a specific, measurable and attainable goal. What would you consider success? How will you measure that? When will you measure that?

Repeat the process. Once the goal has been identified, the process has not ended. The team needs to establish a timetable for repeating the process of collecting and analyzing the data. This forces the team to stay focused on measuring its progress.

But Hale cautions teams against focusing too narrowly on certain areas because of the potential to ignore other areas. “You have to collect data to make sure you’re on target but you also have to look at data to make sure other things aren’t falling through the cracks,” Hale said.

“Data collection and analysis is a continuing process. It never ends. Once you begin asking questions and looking for answers, you find that you have more answers and more questions,” Hale said.
# Student data checklist

<table>
<thead>
<tr>
<th>STUDENT DATA CHECKLIST</th>
<th>GRADE LEVEL</th>
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</thead>
<tbody>
<tr>
<td><strong>ENROLLMENT</strong></td>
<td></td>
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<tr>
<td>Total number of registered students.</td>
<td></td>
</tr>
<tr>
<td>Number of students in special programs (e.g., Title 1, LEP, gifted and talented) broken down by category.</td>
<td></td>
</tr>
<tr>
<td>Number of students broken down by ethnicity, language group or other meaningful categories.</td>
<td></td>
</tr>
<tr>
<td><strong>DAILY ATTENDANCE</strong></td>
<td></td>
</tr>
<tr>
<td>Average daily attendance of students by grade, grade span, whole school, or other enrollment category.</td>
<td></td>
</tr>
<tr>
<td>Percent of students tardy for classes.</td>
<td></td>
</tr>
<tr>
<td>Number of students who have been absent from school 21 days or more.</td>
<td></td>
</tr>
<tr>
<td><strong>MOBILITY/STABILITY</strong></td>
<td></td>
</tr>
<tr>
<td>Mobility rate: percent of children who move in and out of a school during a year.</td>
<td></td>
</tr>
<tr>
<td>Stability rate: the percent of students who remain in the same building for the entire year.</td>
<td></td>
</tr>
<tr>
<td><strong>SOCIOECONOMIC STATUS (SES)</strong></td>
<td></td>
</tr>
<tr>
<td>Percent of students receiving free or reduced-price lunch.</td>
<td></td>
</tr>
<tr>
<td>Average level of parents’ education and/or household income.</td>
<td></td>
</tr>
<tr>
<td>Unemployment rates in the attendance area.</td>
<td></td>
</tr>
<tr>
<td><strong>STUDENT BEHAVIOR</strong></td>
<td></td>
</tr>
<tr>
<td>Number or percentage of discipline referrals or incidents.</td>
<td></td>
</tr>
<tr>
<td>Number or percentage of student suspensions and expulsions.</td>
<td></td>
</tr>
<tr>
<td>Frequency of gang-related, substance abuse, or other at-risk behavior.</td>
<td></td>
</tr>
<tr>
<td><strong>LIMITED ENGLISH PROFICIENCY</strong></td>
<td></td>
</tr>
<tr>
<td>Percent of students with limited English proficiency.</td>
<td></td>
</tr>
<tr>
<td>Percent of families who speak English as a second language.</td>
<td></td>
</tr>
</tbody>
</table>

**Source:** Comprehensive School Reform Research-Based Strategies to Achieve High Standards by Sylvie Hale (San Francisco: WestEd, 2000). See Page 7 for ordering information.
Crafting data summary statements

**Comments to facilitator:** This activity will assist the team in focusing on what it has learned from the data it has collected about the school. As the team compares this data to its vision for the school, it should be able to identify the steps the school needs to take to reach identified goals.

**Materials:** Several copies of the data summary sheet, various data sources, chart paper, markers, pens.

**Directions**

1. Complete the Data Summary Sheet (see Page 5) for each of your data sources. Be as complete as possible. Think about other possible summary tables that might also be created. For example, after completing the sample data summary sheet, you may notice that girls in 4th through 6th grades are underachieving in mathematics. You could create another data summary table in which you break out the girls by ethnicity to see if a pattern emerges.

2. Summarize the data by writing a statement based on the data. As you review the data, consider:
   - Which student sub-groups appear to need priority assistance, as determined by test scores, grades, or other assessments? Consider sub-groups by grade level, ethnicity, gender, language background (proficiency and/or home language), categorical programs (e.g., migrant, special education), economic status, classroom assignment, years at our school, attendance.
   - In which subject areas do students appear to need the most improvement? Also, consider English language development.
   - In which subject areas do the “below proficient” student sub-groups need the most assistance?
   - What evidence supports your findings?

3. For each data summary statement, brainstorm all the possible reasons why the data show what they do. For each reason, identify data or facts that support that assertion. If no data exist, determine how to locate data that would support the assertion. Continue asking “why” until the root cause of the problem or need has been identified.

**Source:** Comprehensive School Reform Research-Based Strategies to Achieve High Standards by Sylvie Hale (San Francisco: WestEd, 2000). See Page 7 for ordering information.
Data summaries

Data type: ________________________________________________________________
(e.g., enrollment, student achievement, total, attendance, student achievement reading)

Data source/measure: ______________________________________________________
(e.g., SAT9, school records, staff survey)

What the numbers represent: ________________________________________________
(e.g., percentage of students below grade-level; number of students higher than 4 on district math assessment; percentage of students who say they like to read)

<table>
<thead>
<tr>
<th>STUDENT CHARACTERISTIC</th>
<th>Grade Level</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHNICITY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>African-American</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
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<tr>
<td>Hispanic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Native American</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GENDER</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INCOME</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-income</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not low-income</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LANGUAGE ABILITY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fully proficient</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Limited proficient</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-proficient</td>
<td></td>
<td></td>
</tr>
<tr>
<td>English only</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPECIAL POPULATIONS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Migrant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Title 1 Target Assist</td>
<td></td>
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<tr>
<td>Special education</td>
<td></td>
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<tr>
<td>Preschool</td>
<td></td>
<td></td>
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<tr>
<td>After-school</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
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</tr>
</tbody>
</table>

Write a statement summarizing the data collected above. A data summary statement or need statement does not offer a solution nor does it describe a cause or lay blame.

Source: Comprehensive School Reform Research-Based Strategies to Achieve High Standards by Sylvie Hale (San Francisco: WestEd, 2000). See Page 7 for ordering information.
Moving from needs to goals

Comments to the facilitator: This activity will aid you in developing goals based on your identified needs.

Materials: Poster paper, sentence strips, masking tape, markers. The list of data summary statements developed using the Crafting Data Summary Statements tool on Page 4 or other method.

Preparation: Prepare a sheet of poster paper with your vision and post that in the room where you are working. Write each data summary statement on a separate sentence strip and post on the wall. Write the model statements listed below on chart paper and be prepared to post those on the wall as you begin your work.

Directions

1. Depending on the size of the group and the number of data summary statements, the facilitator may want to break a larger group into several smaller groups of three or four persons.

2. Each group should transform one statement into a student/program goal. The group should include an objective, outcome indicator, baseline, timeframe, target standard or performance, and target instructional practice. Refer to your vision often as you write these goals.

STUDENT GOAL MODEL

Students in grades 2 through 5 will OBJECTIVE as measured by OUTCOME INDICATOR. Current results indicate that BASELINE. At the end of TIME FRAME, students in these grades will perform at TARGET STANDARD OR PERFORMANCE, and at the end of two years, they will perform at TARGET STANDARD OR PERFORMANCE.

EXAMPLE

Data summary statement: Most of our upper-elementary students are under-performing in language arts.

Student goal: Our upper-elementary students will improve their language arts skills (OBJECTIVE) as measured by the district assessment and standardized test (OUTCOME INDICATOR). Current results indicate that 67% of students in grades 4-6 are “below proficient” (BASELINE). By spring 2001 (TIMEFRAME), 25% of students currently under-achieving in language arts — particularly those in upper elementary — will improve their literacy skills by moving from “below proficient” to “proficient” (TARGET STANDARD OR PERFORMANCE).

PROGRAM GOAL MODEL

Current records show that BASELINE teachers participated in professional development activities offered by our school this year. By TIMEFRAME, our school will OBJECTIVE as measured by OUTCOME INDICATOR. As a result, teachers will offer TARGET INSTRUCTIONAL PRACTICE to these students. At the end of the second year, staff will OBJECTIVE as measured by OUTCOME INDICATOR. As a result, students will perform at TARGET STANDARD OR PERFORMANCE.

EXAMPLE

Data summary statement: Our lowest-performing students in language arts are African-American, particularly males.

Program goal: By the end of the 2000-2001 school year (TIMEFRAME), all staff will have learned about effective instructional practices that accelerate the academic achievement of African-American males (OBJECTIVE). Currently, only 5% of staff have these skills (BASELINE). The following year (TIMEFRAME), all staff will have implemented new strategies (TARGET INSTRUCTIONAL PRACTICE) as measured by peer coaching and classroom observations (OUTCOME INDICATOR).

Source: Comprehensive School Reform Research-Based Strategies to Achieve High Standards by Sylvie Hale (San Francisco: WestEd, 2000). See Page 7 for ordering information.
Learning about using data

- Comprehensive School Reform Research-Based Strategies to Achieve High Standards by WestEd. Offers a coherent framework for planning schoolwide improvements. Describes the context and key elements of comprehensive school reform and offers a process for conducting comprehensive data analysis, planning, and implementation. Includes numerous tools and activities to facilitate planning and implementation, profiles of successful schools, and lists of additional resources. The entire guidebook can be downloaded at no charge as a PDF file at www.wested.org/csrd/guidebook. A complete set of resources (the guidebook plus two videos) also is available for $59.95. For information about ordering, visit the WestEd web site at www.wested.org/wested/news.shtml.


- How to Conduct Surveys (2nd ed.) by A. Fink and J. Kosecoff. Thousand Oaks, Calif.: Sage, 1998. Covers the process of doing surveys from planning to designing to conducting, analyzing to presenting findings. Includes overview of how to do statistical analyses of survey data. To order, call (805) 499-9774, fax (805) 375-1700, e-mail: order@corwin.sagepub.com. Price: $29.95.


- Tracking your school’s success: A guide to sensible evaluation by J.L. Herman and L. Winters. Thousand Oaks, Calif.: Corwin, 1992. Focuses on providing educators with guidance and tools to help them answer questions such as How are we doing? How can we improve? How can we share our successes? To order, call (805) 499-9774, fax (805) 375-1700, e-mail: order@corwin.sagepub.com. Price: $29.95.

- “Translating school improvement into numbers,” by Joan Richardson, School Team Innovator, February 1997. Describes a cycle for data-based decision making and can be used as a guide for implementing vision. Available in NSDC’s Online Library, www.nsdc.org/library. To order a back copy, calling the NSDC Main Business Office at (800) 727-7288.
I'm a school principal and I'm intrigued by everything I'm hearing about using data in schools. But, frankly, I don’t have a clue about where to begin and I’m a little embarrassed about trying to muddle through this with my staff without having more background. I know many other principals who feel the same way. Do you have any suggestions for us?

You’ve actually identified one of the reasons why so many schools still haven’t moved into using data. Principals don’t have the background or skills they need to lead a data analysis effort. They feel uncomfortable admitting what they don’t know and few districts have helped by providing them with the learning opportunities they need.

First, I would suggest talking with other principals in your district about assembling a group of principals to learn more about data. Principals in your district could create their own data study group that focuses on districtwide issues.

Then, ask the district office to help provide you with the staff development you need to learn the necessary skills. In many districts, the administrator in charge of assessment already has much of the knowledge that you need to have. If that’s not the right person for your group, then find someone you respect to teach you about various sorts of data that the district already collects and teach you how to interpret that data. You may be surprised to learn the kind of information that the district has available — and doesn’t even realize would help or interest schools.

If your district is unable to support you in this effort, consider tapping the resources at a nearby university or regional educational service center. That would also offer the advantage of being able to connect with principals outside your district.

Having that experience would prepare you to return to your school as a facilitator for your school-based data process.

Finally, although it’s beneficial for you to learn about the process before you work with your staff, muddling through it with your staff isn’t such a bad plan. When principals and staffs learn a new skill together, it demonstrates their willingness to be a learner alongside their teachers. Who said principals have to know everything?
### Tool 5.1: What are data?

**Directions:** Teams thinking about improving teaching and learning can find a lot more information than just grades and test results. Data-driven schools in Alabama used these data sources in their school improvement process. Review the list, then brainstorm what other data may be available. Determine as a team which sources you want to use.

<table>
<thead>
<tr>
<th>STATE &amp; NATIONAL TEST RESULTS</th>
<th>SCHOOL CLIMATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>• State-mandated subject-area assessments</td>
<td>• Attendance records</td>
</tr>
<tr>
<td>• Writing assessments</td>
<td>• Counseling referrals</td>
</tr>
<tr>
<td>• Graduation exams</td>
<td>• Discipline reports (with trend analysis)</td>
</tr>
<tr>
<td>• College entrance exams</td>
<td>• Student comments to counselors, teachers</td>
</tr>
<tr>
<td>• Advanced placement exams</td>
<td></td>
</tr>
<tr>
<td>• Yearly progress reports</td>
<td></td>
</tr>
<tr>
<td>• National Assessment of Educational Progress scores</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COMMERCIAL ASSESSMENTS</th>
<th>SCHOOLWIDE ASSESSMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Packaged program assessments</td>
<td>• School report cards</td>
</tr>
<tr>
<td>• Individual reading assessments</td>
<td>• School Improvement Plan yearly assessments</td>
</tr>
<tr>
<td></td>
<td>• Collective analyses of student work</td>
</tr>
<tr>
<td></td>
<td>• Schoolwide writing assessments</td>
</tr>
<tr>
<td></td>
<td>• Products of accreditation processes</td>
</tr>
<tr>
<td></td>
<td>• Reports from school walk-throughs</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CLASSROOM ASSESSMENTS</th>
<th>OTHER STUDENT DATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Daily and unit tests</td>
<td>• Course assignments</td>
</tr>
<tr>
<td>• Student portfolios</td>
<td>• College admission data</td>
</tr>
<tr>
<td>• Checklists</td>
<td>• Quarterly, interim, and final grades</td>
</tr>
<tr>
<td>• Running records</td>
<td>• Dropout data</td>
</tr>
<tr>
<td>• Evaluations of student projects</td>
<td>• Minutes/records of student support teams</td>
</tr>
<tr>
<td>• Evaluations of student performances</td>
<td>• Special education referrals</td>
</tr>
<tr>
<td>• Examples of student work</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SURVEYS</th>
<th>OTHER DATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Student</td>
<td>• Student honors and awards</td>
</tr>
<tr>
<td>• Parent</td>
<td>• Student and parent demographic information</td>
</tr>
<tr>
<td>• Community</td>
<td>• Results of teacher action research</td>
</tr>
<tr>
<td>• Uncertified staff</td>
<td>• Reports from teachers</td>
</tr>
<tr>
<td>• Targeted teacher surveys by grade level and content area (program effectiveness, staff development needs, technology, library, paperwork, duties, etc.)</td>
<td>• Academic lab and library usage</td>
</tr>
<tr>
<td></td>
<td>• Faculty turnover rate</td>
</tr>
<tr>
<td></td>
<td>• Registration data</td>
</tr>
</tbody>
</table>

**Source:** Compiled by John Norton for the Alabama Best Practices Center.
In July 2006, eight members of the Marylin Avenue Elementary School leadership team from Livermore, Calif., arrived at the annual Education for the Future Summer Data Institute in Chico, Calif., eager to learn how to employ data-driven decision making to change their school. Data-driven decision making is the process of using data to inform decisions to improve teaching and learning.

Schools typically engage in two kinds of data-driven decision making — at the school level and at the classroom level. The first leads to the second.

At the school level, staff members look at all the data to:
• Understand where the school is;
• Understand how they got to where they are;
• Know if the school is meeting its goals and achieving its vision;
• Understand the real reasons gaps and undesirable results exist;
• Evaluate what is working and what is not working;
• Predict and prevent failures; and
• Predict and ensure successes.

The Marylin team included six teachers, the district data analyst, and Principal Jeff Keller, who had just finished his first year as an administrator. The team was ready to get to work on the challenges they faced:
• The school had not made Adequate Yearly Progress (AYP) since it was first required in 2002-03 (four years in a row).
• The English as a Second Language population was on the rise.
• The free/reduced lunch population was increasing.
• It was perceived that the school culture was not ready to change.
• The school lacked focus and instructional coherence.
• Staff members were not using data to improve.

After a week of intensive work, the team left with a plan for data-driven activities to improve instruction and student learning. One year later, three members of the leadership team returned to Chico to share their successes at the 2007 Education for the Future Summer Data Institute.

Just days before the team arrived in Chico, Marylin Avenue Elementary School received its spring 2007 student achievement results. Student achievement improved at every grade level, in every subject area but one at one grade level, and with all student groups. These increases came even as the Hispanic and free/reduced lunch populations increased. Here is what the school did to get results.

**MARYLIN AVENUE DEMOGRAPHICS**

In 2002-03, 49% of Marylin...
Avenue’s students were of Hispanic descent. This percentage increased to 66% five years later as the percentage of Caucasian students decreased from 31% to 18%. At the same time, the percentage of students receiving free/reduced lunch increased from more than 45% to almost 76% of the population. By 2006-07, Marylin Avenue School had a student enrollment of 507 in kindergarten through 5th grade, up from 465 in 2002-03. Of the 507 students enrolled, 335 (66%) spoke Spanish as their first language. Almost half of the parents had only a high school diploma or less. The teaching staff, mostly Caucasian females, had an average of 14.4 years of teaching experience (Marylin Avenue School, 2006). (See chart above.)

Marylin Avenue had not made AYP for the previous four years. The school received negative scores on the California Academic Performance Index (API) for the previous three years, which meant that student achievement results were decreasing. In 2003-04, the school’s API score decreased 17 points. Their target for 2006-07 was to increase 7 API points. Introduced in California in 1999, the API measures the academic performance and progress of individual schools and establishes growth targets for future academic improvement. The interim statewide API performance target for all schools is 800. A school’s growth is measured by how well it is moving toward or past that goal.

The biggest challenge facing the leadership team was to get experienced teachers to realize that changes in the student population required changes in their teaching.

## WHAT DATA-DRIVEN DECISION MAKING LOOKS LIKE: MARYLIN AVENUE, JULY 2007

Fast-forward to the 2007 Summer Data Institute. Participants heard Marylin Avenue’s success story: The school increased 54 API points, and student achievement increased in every grade level, every subject area, and with every student group. Here is what the leadership team told the group assembled in Chico:

- We used the Education for the Future Continuous Improvement Continuums. The Continuous Improvement Continuums are self-assessment tools that measure where the school is with respect to its approach, implementation, and outcomes for seven continuous improvement categories. The tools helped members of the staff communicate about specific aspects of improvement as we moved forward together. (The Continuous Improvement...)

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### MARYLIN AVENUE ELEMENTARY SCHOOL BACKGROUND

<table>
<thead>
<tr>
<th>Student Enrollment</th>
<th>2002-03</th>
<th>2006-07</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>465</td>
<td>507</td>
</tr>
<tr>
<td>Hispanic</td>
<td>229</td>
<td>335</td>
</tr>
<tr>
<td>Caucasian</td>
<td>145</td>
<td>91</td>
</tr>
<tr>
<td>Other</td>
<td>91</td>
<td>81</td>
</tr>
<tr>
<td>Free/reduced lunch</td>
<td>211</td>
<td>385</td>
</tr>
<tr>
<td>Mobility</td>
<td>30%</td>
<td>34%</td>
</tr>
</tbody>
</table>

Looking at all the data gave us a reality check about where our school was, not just where we thought it was.

- We used the Education for the Future Continuous Improvement Continuums. The Continuous Improvement Continuums are self-assessment tools that measure where the school is with respect to its approach, implementation, and outcomes for seven continuous improvement categories. The tools helped members of the staff communicate about specific aspects of improvement as we moved forward together. (The Continuous Improvement...)

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We realized we had very little school processes data that measured our instructional strategies and programs. Looking at all the data gave us a reality check about where our school was, not just where we thought it was.
Continuums are available at http://eff.csuchico.edu/download_center/.

- **We developed a vision.** All the data and the results of the self-assessments showed us that we needed a clear vision for the school — one that everyone could commit to, not just agree with, and one that we would monitor to make sure everyone was implementing. Having a vision that was shared by everyone made a huge difference.

- **Staff participated in identifying contributing causes of our undesirable results.** Using the Education for the Future problem-solving cycle activity helped staff engage in deep discussions and honestly think about an issue before we solved it. In the past, we would identify a gap and then solve it in the same half-hour. The problem-solving cycle made us think through an issue and gather data to understand it in greater depth before solving it. Staff used this activity for evaluating programs, strategies, and processes (Bernhardt, 2003, 2004, 2005, 2006).

- **We engaged in schoolwide professional learning in assessment and instructional strategies.** We wanted teachers to work differently, so we had to support their continual learning of new assessment and instructional strategies.

- **We began using common assessments to clarify where students were at any time during the year.**

- **We established collaborative teams, and meeting times were enforced.** Teams used the time to discuss student assessment results and student work and how to change instructional strategies to get improved results. We kept these times sacred and modeled how to use the time and data effectively.

- **We created a school portfolio to house our data, vision, and plan.** The school portfolio helps us assess where we are with respect to our vision and provides the focus and sense of urgency to improve.

### MARYLIN AVENUE, 2007-08

In 2007-08, Marylin Avenue staff members continued to implement the strategies they began using in 2006-07. In addition, staff mapped many school processes using flowcharting tools. Teachers and other staff members gathered data related to the processes to make sure they were teaching what they intended to teach and that they were getting the results they wanted and expected for all students. All staff members understand what they are doing collectively to ensure that all students become proficient and what they need to do when students are not learning.

Marylin Avenue's 2007-08 accountability results were also impressive. The school is achieving instructional coherence and moving all students forward. The results again showed increases at every grade level, in every subject area, and with every student group. Marylin Avenue's API results for 2007-08 are 742, a 37-point increase. The school's target was 7.

<table>
<thead>
<tr>
<th>Year</th>
<th>Number tested</th>
<th>Base</th>
<th>Target</th>
<th>Actual</th>
<th>Met target</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002-03</td>
<td>276</td>
<td>681</td>
<td>6</td>
<td>1</td>
<td>No</td>
</tr>
<tr>
<td>2003-04</td>
<td>270</td>
<td>665</td>
<td>6</td>
<td>-17</td>
<td>No</td>
</tr>
<tr>
<td>2004-05</td>
<td>313</td>
<td>662</td>
<td>7</td>
<td>-5</td>
<td>No</td>
</tr>
<tr>
<td>2005-06</td>
<td>303</td>
<td>651</td>
<td>7</td>
<td>-7</td>
<td>No</td>
</tr>
<tr>
<td>2006-07</td>
<td>295</td>
<td>705</td>
<td>7</td>
<td>54</td>
<td>Yes</td>
</tr>
<tr>
<td>2007-08</td>
<td>286</td>
<td>742</td>
<td>7</td>
<td>37</td>
<td>Yes</td>
</tr>
</tbody>
</table>

As the table above shows, Marylin Avenue has come a long way in improving student learning for all students.

### CONDITIONS FOR SUCCESS

In addition to the work detailed above, Marylin Avenue staff members say they continue to get student achievement increases because they:

- **Shifted their culture through the use of data, committing to and implementing the vision, consistent leadership, and professional learning that helped them get results;**

- **Adopted common formative assessments, which helped every teacher know what students know and do not know, and therefore how to target ongoing instruction;**

- **Examined student data that allowed teachers to alter their instructional processes throughout the year to ensure that students continued to learn;**

- **Collaborated by grade level to review formative data, with a focus on teaching to the standards; and**

- **Benefited from strong leadership that never let go of the vision — modeling and supporting its implementation at every step along the way.**

### MOVING FORWARD WITH DATA

In spite of Marylin Avenue’s chal-
lenging population changes, student achievement improved at every grade level, in every subject area, and with every student group two years in a row. With data and process tools, staff could see where the school stood. They used that information to get all staff on the same page to implement a vision and engage in powerful professional learning and collaboration strategies. Marylin Avenue staff will continue to use data to monitor and measure processes to ensure that all students are learning. The data framework that this school used for continuous improvement can be used by any school or learning organization. It is the use of all the data that makes the difference.

For schools to see student achievement increases in every subject, at every grade level, and with every student group, educators must look at big-picture data. They must understand what is being implemented to know what needs to change. It is not enough for educators to focus on just one thing they think can change; they must look at all the data. To move forward, review all the data, understand the data, and look for commonalities. Look for leverage points. Listen to students, staff, and parents. Look beyond summative student achievement scores. With a big-picture view, schools have the ability to improve all of their processes — and students will be the ultimate beneficiaries.

REFERENCES


Meaningful analysis can rescue schools from drowning in data

By Douglas B. Reeves and Tony Flach

Learning Forward’s Standards for Professional Learning have the potential to influence educational policy and practice in profound ways for the systems that are courageous enough to take them seriously, and the Data standard is a critical element systemwide. Schools are overwhelmed with data warehouses, colorful charts and graphs, and endless PowerPoint presentations. The millions of dollars that governments at all levels are investing in data systems will be wasted unless significantly greater attention is paid to the systematic evaluation of teaching and leadership decisions based on data. However, in many schools, the availability of data is inversely proportional to meaningful analysis. The reality is that many common practices substitute the appearance of data analysis for the reality of substantive analysis.

To realize the achievement of the Data standard, we offer three imperatives for school leaders and policymakers. First, close the implementation gap for professional learning standards. To close the gap between the aspirations expressed in the standards documents and the reality of educational systems, leaders at every level must hold themselves accountable for the implementation of the standards. Second, change accountability from an evaluation system, linked to punishments and rewards to a learning system. Feedback for improved performance has a greater impact on morale and productivity than the use of the same data for financial incentives alone. We recognize the present political reality that data will be used for economic incentives; we are suggesting, however, that the massive investment that educational systems are making in data systems could be used for far more constructive purposes. Third, change
data system investment strategy from one that disproportionately allocates resources to hardware, software, and data warehouses to new strategies that disproportionately allocate resources of money and time to data analysis and decision-making processes. With these emphases, the Standards for Professional Learning will have the opportunity to influence student learning and improve teaching and leadership effectiveness. Without these imperatives, however, teachers and leaders will continue to be drowning in data but failing to have the time, professional learning, and leadership support to use data to improve teaching and learning.

CLOSING THE IMPLEMENTATION GAP

Consider the fate of academic content standards over the past two decades. In some schools, standards formed the basis of new curricula, teaching methods, assessments, and grading systems. When the work of students was compared to a clear and objective standard rather than to that of other students, both academic achievement and educational equity improved. Standards-based education allowed researchers from multiple perspectives to document sustained improvements in a variety of schools. Marzano (2007) and Hattie (2009) provide meta-analytical approaches that offer compelling evidence of the impact on student achievement when students have learning goals that are explicit and teachers provide accurate and specific feedback to improve performance related to those learning goals. Hattie in particular describes the power of feedback from formative assessments. Teachers use the formative assessments to provide meaningful recommendations for improved performance to students as well as using that feedback to understand the effectiveness of their instructional practices. Hargreaves and Shirley (2009) and Fullan (2010) complement that research with case studies of sustainable system reform, while Anderson (2010) links specific gains in student achievement to comprehensive and consistent data analysis. Certainly the standards movement alone was not responsible for all of these improvements; when the right “constellation of practices” (Reeves, 2011a) came together, improvement was significant and sustained. The last study, including an analysis of student results over three years in more than 2,000 schools, suggested that of 21 teaching and leadership practices observed, effective monitoring of student, teacher, and leadership data was significantly more powerful than other variables, particularly when effective monitoring was combined with leadership focus and teacher efficacy. The research suggests that student success is possible with the right combination of teaching and leadership strategies, and standards for professional learning play an integral role.

STANDARDS ARE NOT ENOUGH

Unfortunately, these success stories are overshadowed by the number of instances in which standards were merely adopted by governing boards and never implemented at the classroom level. Two decades after the dawn of the voluntary standards movement and one decade after No Child Left Behind required all states to have academic content

Professional learning that increases educator effectiveness and results for all students uses a variety of sources and types of student, educator, and system data to plan, assess, and evaluate professional learning.
Data drives learning for teachers and students

By Denise Torma
As told to Valerie von Frank

We developed a six-year strategic plan with a steering committee of 35 stakeholders who reviewed research on 21st-century learning and the future of education and then created a district vision, mission statement, and set of beliefs that formed the basis for the plan. Our mission is: “We will create an environment that will help students become problem solvers, collaborators, and critical thinkers.” The goal is moving students forward, and professional development drives that.

Two years ago, we were looking for a tool to assess professional development in the district. I contacted Learning Forward and learned about the Standards Assessment Inventory. We began using it in spring 2010, and we got a pulse for professional development in the district. We found out we had pockets of strengths and areas for improvement.

We then used the results to plan. Each year, principals set goals for professional development, student achievement, and leadership. The Standards Assessment Inventory is the focal point of the professional development goals. Principals set their goals according to the results and how those fit with the district’s strategic plan. They list a goal, along with a related standard, and evaluate professional development based on student achievement.

A team of central office administrators reviews all the Standards Assessment Inventory results and meets with each principal to listen to what each learned from that building’s assessment. Administrators ask the principals guiding questions: What are the strengths? What are areas for improvement? What are the surprises? What questions do you have? What are your two priorities for next year? Then we look for commonalities and what is unique to a building to plan professional development for next year.

Other data also aid planning. We store student data online, including common assessment results, state standardized test results, SATs, and more. Principals use these data with teachers to look at each student to maximize instruction. These data inform building-level professional development planning.

In addition, each school has an electronic folder that is the story of the school in four parts: demographics, the results of student and parent surveys, state standardized test results, and a focus for work. These data go back at least five years so we can monitor trends. The principal and administration manage the principal’s goals in this section. The principals write monthly reports and submit them online, attaching documents that substantiate the work they did during the year to meet each goal. Principals work with their faculties in August to look at the data and discuss ways to improve student achievement.

Data drive our professional development, which drives our student achievement. We use data to monitor, assess, and plan ways to improve. We’re always trying to push the bar higher for all achievement.

Denise Torma (tormaden@eastpennsd.org) is assistant superintendent for initiatives and evaluation in the East Penn School District in Emmaus, Pa. Valerie von Frank (valerievonfrank@aol.com) is an education writer and editor of Learning Forward’s books.
standards supported by standards-based assessments, there remain an astonishing number of schools where instruction and assessment are indistinguishable from 1991. Despite a blizzard of standards, pacing guides, and mandates from federal, state, and local education policymakers, the fact remains that the same performance by the same student can yield wildly different evaluations based solely upon the idiosyncratic judgment of individual classroom teachers (Reeves, 2011b), the antithesis of what standards-based assessment should be. Data about the effectiveness of professional development strategies and the implementation of academic standards were the missing links. Leaders and policymakers have the opportunity to learn from the past and immediately begin monitoring the effectiveness of data analysis practices, to begin using data on data to improve learning.

Similarly, data systems have proliferated. Indeed, it is difficult to find a school that does not profess to have teachers and administrators “looking at data.” Given the avalanche of data coming from state and local sources, one cannot avoid “looking at” the data. The question is what teachers and administrators are doing with it.

IMPLEMENTING PROFESSIONAL LEARNING STANDARDS

Consider this sample scoring guide for application of the Standards for Professional Learning for data analysis.

1. Not meeting standards: Meetings are inconsistent and haphazard. There are no agendas and little reference to data. Teachers and administrators are preoccupied by other concerns, including discipline, parent complaints, and policy disputes. While information about student achievement is available, school leaders complain that teachers are “not ready” for this sort of analysis.

2. Progressing: There is a sincere attempt to look at data, but only in the most general form. The threat of complaints prevents any classroom or student-level analysis, so the data analysis leads only to platitudes about “working smarter” and there are not explicit instructional or leadership decisions that emerge from the meetings.

3. Proficient: Teachers and administrators meet weekly to consider a variety of data sources, including formative and summative assessments as well as teacher observations. Each meeting has written records of decisions and commitments, with explicit teaching and leadership decisions based on clearly identified student data.

4. Exemplary: In addition to all of the characteristics of “proficient” performance, teachers and administrators regularly share their insights with their colleagues, benefitting not only their colleagues within the school, but the entire system. There is clear and compelling evidence that best practices are replicated and ineffective practices are discontinued. We have created other scoring guides for data analysis that are more detailed (available as free downloads at www.LeadandLearn.com), but our experience suggests that when it comes to creating rubrics for professional practices, specificity, clarity, and brevity beat complexity every time.

This brief example illustrates how schools can transform standards for professional learning into practical guidelines. Each staff meeting could conclude with an objective analysis of performance. My colleagues at the Leadership and Learning Center have field-tested scoring guides like this using a combination of direct observation, interviews with teachers and principals, focus groups, and anonymous and confidential surveys. The schools we observed had the same data systems, same professional development seminars, and same state and district mandates for data analysis. Nevertheless, they varied widely in their actual implementation of data analysis standards.

ACCOUNTABILITY AS A LEARNING SYSTEM

The Standards for Professional Learning make a trenchant ethical point that the data that are to be analyzed by schools must include student, educator, and system performance. In brief, effective data analysis must include much more than test scores. The application of a scoring guide for professional practices allows a system to take the standards seriously, examining the interrelationship between professional practices surrounding data analysis and gains in student achievement. Analyzing data from more than 600,000 students in more than 700 schools, we plotted the relationship between effective data analysis and gains in student reading and math scores. The results offer good and bad news. The good news is that there is a clear and consistent relationship between deep implementation of professional practices and student achievement. We have found that to be true not only with regard to deep implementation of data analysis, but also other instructional initiatives, such as professional learning communities, positive behavioral support, effective instructional practices, and instructional coaching. The bad news is that in almost every case, the relationship between implementation and student achievement is nonlinear. That is, the impact of implementation on student results does not proceed in a stair-step like fashion, with each increment of improvement in implementation associated with a gain in achievement. In fact, middle levels of implementation — which demand a good deal more effort by teachers and students — have no better results than low levels of implementation. Unless leaders and educators are committed to deep implementation of a relatively small number of instructional initiatives, then they will never have the time and energy to get to deep levels of implementation required in order to influence student achievement in a meaningful way.

Systems that focus exclusively on test scores would be like an initiative to combat student obesity by posting the annual weight scores of every student and exhorting teachers to improve the scores. But with an exclusive focus on weight loss, neither parents nor policymakers would ever know if weight
loss was associated with improved diet and exercise or with eating disorders and drug abuse. After all, all we care about is the score. Similarly, the best way to improve average SAT and ACT scores in any high school is to limit the number of students who take those assessments to those with the best academic preparation. Any principal and faculty member who seeks to encourage the broadest level of post-secondary opportunity by increasing the number of students taking the SAT and ACT will almost certainly be punished by an accountability system that focuses exclusively on the average test score. In brief, we must consider causes — teacher and leadership actions — not just effects — student scores. The Standards for Professional Learning make an important ethical statement when they conclude that student test data, without data about inputs such as instructional practice and professional development, are insufficient to improve system performance or inform decisions about professional learning.

Data analysis requires time and practice. Schools that bring in an inspirational speaker to address the faculty on “Data Day” are doomed to disappointment. Only schools that are willing to commit to a consistent and rigorous discipline that includes an examination of data at every level — student, teacher, administrator, and system — will make the leap from intent to impact.

FROM EVALUATION TO ASSESSMENT FOR LEARNING

The reason that so few teacher and administrator evaluation systems provide any opportunity for accountability to serve as a learning tool is that the words “needs improvement” are both rare and an invitation to litigation. As DuFour and Marzano (2009) demonstrated, evaluation scores are so disconnected from reality that they cannot be used as a tool for feedback and improvement. The picture for administrators is even worse (Reeves, 2008), with many leaders never receiving an evaluation and the content of the evaluations deteriorating as experience and placement in the hierarchy increases. We know what to do. Stiggins (2007) has long demonstrated that accountability for learning is the best practice in providing feedback to students. Marshall (2010a & 2010b) has demonstrated that rubric-based observations can be provided for teachers and administrators in a way that leads to improved performance through accurate, consistent, frequent, and meaningful feedback. Amabile & Kramer (2011) documented that frequent feedback to improve performance is associated with employees feeling that they are having their best days at work. Strikingly, annual performance reviews, financial rewards, and public recognition weren’t nearly as powerful as frequent and specific feedback. Improved educator performance stems directly from open and honest data on their professional practice.

ESSENTIAL QUESTIONS IN ACCOUNTABILITY FOR LEARNING SYSTEMS

There are two essential questions for any accountability system. First, which specific teaching practices are associated with improvements in student learning? Second, which specific leadership practices are associated with improvements in teaching? As the Standards for Professional Learning suggest in their description of input data, only an accountability system that includes student, educator, administrator, and system performance data will be able to address those questions.

POLITICAL REALITIES AND FALSE DICHOTOMIES

The political reality is that many jurisdictions have made a decision to evaluate and compensate teachers and administrators based solely upon changes in student test scores. Many researchers, Pink (2009) among them, have made the point that extrinsic motivation can be counterproductive and, particularly in the case of student test scores, can lead to a host of unintended consequences. Nevertheless, just because a data system is misused in some areas should not lead to the conclusion that the system is worthless in all areas. As the data from implementation audits demonstrate, it is possible to link professional practices, or input data, with student learning in a constructive manner, even if the same data are misused in ill-advised reward and punishment schemes.

FROM “RESPONSIBLE FOR DATA” TO RESPONSE TO DATA

There is, we believe, a way out of this conundrum. The Standards for Professional Learning suggest that comprehensive data analysis includes not only test scores, but also system, teaching, and leadership observations, as well as a variety of student demographic data. The last of these data elements do not excuse poor student performance, but rather help teachers and school leaders understand potential trends and suggest essential interventions to support student success. The subtle but essential shift in data-based conversations with teachers is a move from the contention that teachers are “responsible for data” — an indefensible position when that data includes multiple factors beyond the control of the teacher — to the contention that teachers and administrators are responsible for their “response to data.” When a student arrives in 9th grade reading on a 4th-grade reading level, that is not the fault of the 9th-grade teachers and administrators, any more than those teachers and administrators are responsible for the height, weight, home life, or housing of that student. Not all of these students arrive in 9th grade with red flags waving, screaming the message, “I need intervention right now?” Some of these students have the social and political skills to finish middle school with C and D grades, with the occasional B because they are a “pleasure to have in class.” Therefore, their needs are not immediately obvious to 9th-grade counselors and teachers looking only at previous transcripts.

However, 9th-grade teachers, administrators, and the educational systems that support them are responsible for how they respond to this situation. When I ask 9th-grade teachers and
administrators, “How will the curriculum, schedule, teacher contract, administrative support, and instructional strategies be different for a student who is significantly below grade level in reading?” the most common response I receive is, “It won’t be — the schedule is set.” By contrast, there are high schools that assess literacy for every incoming student within the first two weeks of school and make interventions where necessary, providing double or even triple time for literacy in those critical early months of high school to avoid multiple failures later in life. Data analysis is not about “looking at data” but about responding to data with decisive actions in teaching, leadership, professional learning, and allocation of instructional resources.

BALANCE DATA SYSTEM INVESTMENTS

Data systems are powerful and necessary tools to improve teaching, leadership, and learning. However, data systems by themselves are insufficient for educational improvement. Technology vendors and advocates, along with professional development leaders, must make a fundamental shift in their focus on professional learning from how to use data systems to how to make better instructional decisions based on data contained in those systems. These are two distinctly different skills, and the latter has received short shrift in the past several years. We have found that the best (and most ethical) practice is to make the data analysis training “agnostic,” in the words of one of our colleagues — that is, divorced from vendor of the equipment and software. While data systems may come and go, schools need consistent disciplines (Anderson, 2010) to link data to decision making. Although we have observed school systems that claim to devote one-third of their technology and data analysis budget to professional learning, we find that to be consistently insufficient. The demands of the Learning Forward Data standard do not call for a one-time investment. The links between student data and practices are complex and varied, and therefore schools must be willing to invest time, resources, and intellectual energy on a continuous basis to gain maximum value from their significant investment in the hardware and software to support data systems.

LONG-TERM CHALLENGES

Many school systems are facing their greatest financial crises since the Great Depression. These challenges are not short-term. In many areas the decline in property values will lead to a long-term decline in school system revenues. Federal funds, which mitigated some of the worst financial damage in some schools in the past year, will soon evaporate, returning to their pre-2008 levels or lower. So what happens when the money runs out and the mandates expire? If data analysis for improved teaching, leadership, and learning is based solely on the external stimuli of money and mandates, then it was all a pipe dream, an evanescent vision of what might have been. But if these professional standards have the moral foundation that we believe that they do, then the standards will outlast transitory political and financial conditions and form the basis for generations of improved opportunities for students.

REFERENCES


Douglas Reeves (DReeves@LeadandLearn.com) is the founder of the Leadership and Learning Center and Tony Flach (TFlach@LeadandLearn.com) is a senior professional development associate at the center.

[5]
**ROLE:** Data coach  
**PURPOSE:** To ensure that student achievement data drive decisions in classroom and school

*BY JOELLEN KILLION AND CYNTHIA HARRISON*

A relatively new role for instructional coaches is assisting teachers to look at student achievement, perception, demographic, and process data. In this role, coaches help teams of teachers and/or individual teachers to examine data, understand their students’ strengths and weaknesses, and identify instructional strategies, structures, programs, or curriculum to address identified needs. Analyzing school and department- or grade-level trends in the data is only the first step toward designing and adjusting classroom instruction to address the identified needs of students. Coaches frequently facilitate data dialogues with teams of teachers. Coaches often work with building administrators to identify necessary data to examine and ways to display the data so the analysis process with teachers is effective and efficient.

During data dialogues, coaches facilitate interaction about what types of data are being examined, what the data mean, and what the next steps are by asking probing questions to guide data analysis. When coaches focus conversations on data about student learning in a positive and productive way, the dialogue empowers teachers rather than threatens them.
Creating opportunities to identify areas of need is the first step in planning how to address those needs.

Knowledge and skills
To lead data dialogues, coaches know how to establish a risk-free and blame-free environment that allows teachers to feel safe. Coaches require a thorough understanding of various types and forms of available data, an understanding of what each data source assesses, and what conclusions can be validly drawn from any data set. Coaches use strong facilitation and questioning skills to formulate appropriate questions and to guide teachers in examining data thoroughly and accurately. Coaches also know how to assist teachers to plan and take specific actions based on the data to alter their instruction.

Challenges
Coaches face four challenges in this role.
• The first challenge is displaying the data in user-friendly formats which requires coaches to consider the level of sophistication of teachers in analyzing and interpreting data and adjusting the data displays to accommodate the variation in teachers’ understanding of data.
• A second challenge is the coaches’ preparation to understand the data before facilitating data dialogues. Coaches must prepare a protocol—a series of questions—to guide data analysis and interpretation and action planning.
• Assisting grade levels or departments to make decisions based on the data, the third challenge, is a necessary and difficult part of effective data dialogues. Coaches help teachers move beyond what the data mean to what actions will close the gap between where their students are and where they want them to be.
• The fourth challenge is creating a non-threatening, supportive environment that encourages teachers to be open and honest in data analysis.

Scenario: Data coach at work
Nick Romero, the student achievement coach at Cherokee Elementary School, works with the principal and assistant principal to plan the upcoming data conversation with 5th-grade teachers. Everyone knows they are a tough group and resist changing their classroom practices. The coach and administrators look through the 5th-grade data and identify trends and patterns. Following the meeting with administrators, Romero designs a data analysis protocol to use in the meeting with 5th-grade teachers.

Romero facilitates the meeting and invites the principal to explain the 5th-grade data and provide a short overview of the whole school’s results. Romero gives the team a structured data analysis protocol to guide their examination of grade-level data. The 5th-grade teachers spend several hours examining data. First, teachers celebrate student successes and identify strategies they believe contributed to those successes. The protocol then guides the team to identify gaps between what they want students to know and be able to do and actual student performance.

Next, teachers complete an advanced organizer (created by the coach in advance) that tracks individual student achievement in literacy and math. Teachers record each student’s performance level and add comments about other factors that may influence a student’s performance. Focused on student needs and with problem areas identified, Romero encourages teachers to examine their instruction, curriculum, and resources to find leverage points for addressing gaps in student learning. Teachers identify possible interventions, including flexible grouping, ways to differentiate upcoming lessons, and alternative instructional resources and strategies. As the teachers leave the meeting, they agree to meet with the coach and principal in five weeks to re-examine student progress.

*Fictitious person and school

From 9 Roles of the School-Based Coach by Joellen Killion and Cynthia Harrison

9 roles of the school-based coach
• Catalyst for change
• Classroom supporter
• Curriculum specialist
• Data coach
• Instructional specialist
• Learning facilitator (T3, Sept. 2005)
• Mentor
• Resource provider
• School leader

T3 presents one role of the school-based coach each month.
“That’s simply not true!” Beverly, a 3rd grade teacher fumed as she looked at the newspaper editorial. The headline read: “Area Elementary Schools Shortchanging Students.” She quickly scanned the article and found that the newspaper had based its claim on the latest state assessment scores for the community’s three elementary schools.

In math and science, students at all three schools, including Beverly’s, ranked below the state average. “We are, too, doing a good job! I know our kids are doing better than these state tests show,” she muttered to herself, vowing to raise the issue at the next meeting of the school improvement committee.

“Look, this block scheduling we’ve been using for the past two years appears to be the answer to our problems,” explained Murray, a middle school teacher, to his fellow teachers during a school improvement committee meeting. “But I’m getting lots of grumbling from our high school colleagues. They say we just jumped on the fad bandwagon and our kids are suffering. The high school teachers believe our kids simply won’t be ready for the rigors of high school courses. How can we prove to them that block scheduling is working and our kids will indeed be ready?”

“I don’t want to have to do that again,” Joan complained to the principal’s secretary as she walked out of the vice-principal’s office, where she left four very angry 9th grade girls. “That’s the second time today I’ve had to break up a shouting match between girls during passing period. Is it me or does it seem that this kind of thing is happening all the time? We need to do something to stop this!”

Beverly, Murray, and Joan need answers. In the first

Brenda Guenther LeTendre is an assistant professor in special services and leadership studies at Pittsburg State University. She can be reached at 303 Hughes Hall, Pittsburg State University, Pittsburg, KS 66762, (316) 235-4504, fax (316) 235-4520, e-mail: bletendr@pittstate.edu.
scenario, Beverly and her colleagues need to take stock of their school, answering the question: Where are we NOW? How “healthy” is our school? In the second scenario, Murray and his fellow educators need to determine the effectiveness of block scheduling. They need to ask and answer tough questions: Is it working and should we continue using it? In the third scenario, Joan needs to ask questions and get answers, but her questions have a different purpose: To find a solution to a problem.

Getting answers to these questions requires that educators know how to collect, analyze, and interpret data. In other words, they need to know how to conduct a credible program evaluation so that they decide how best to meet the learning needs of all youngsters. Conducting a credible program requires that educators follow six steps:

1. Pose questions.
2. Establish judgment criteria.
3. Make a plan.
4. Gather data.
5. Analyze data.
6. Interpret the results.

These six steps can serve as a suitable guide no matter how narrow or broad the scope of an evaluation. They work equally well for both individual teachers who want to take stock of their own classroom practices and teams of educators who want to determine the effectiveness of schoolwide interventions. Finally, the process can guide both formal and informal evaluations, as well as formative and summative evaluations.

If there’s one thing we’ve learned in the last decade of school reform it is this: Good schools don’t just happen. They happen because the adults in them decide to collaborate on systematically collecting and analyzing data, and then take action based on their findings. The six-step program evaluation process outlined here can serve as a beginning guide that we, as staff developers, can use to support teachers and principals as they seize the data and make decisions.

### Answers require data:
- collecting, analyzing, interpreting.

### STEP 1: POSE QUESTIONS

In Step 1, educators pose the questions that will guide their evaluation. At the outset, their questions will most likely fall into three categories – questions that take stock, determine effectiveness, or seek solutions.

Some taking-stock questions that can get an evaluation off to a good start include:
- Where are we now?
- How “healthy” is our school?
- How do we stack up against the standards?

If teachers want to determine the effectiveness of a strategy, they can simply ask:
- Did it work?
- Did we achieve what we set out to accomplish?
- Did it make a difference?

Finally, if their purpose is to find a solution to a problem, they can begin by simply asking:
- What’s going here?
- What’s causing the problem?

As they generate questions, educators should spread their net wide. They should seek input from decision makers who decide the fate of the program as well as people who are affected, either directly or indirectly, by the intervention. Finally, they should review the program’s intentions.

### STEP 2: ESTABLISH JUDGMENT CRITERIA

Step 2 requires that educators determine up front the criteria and standards they will use to make their judgments. Why do this up front? A primary reason has to do with the difficulty we have in separating feelings from facts. Often stakeholders already have in mind some sort of criteria and standards they will use to judge the worthiness of the program. However, these criteria are often implicit and rarely well-defined. Furthermore, if stakeholders actually do define their judgment criteria, they tend to do so at the end of an evaluation, when their emotions are so mixed with the facts that they can barely tell one from the other. Under such emotional situations, we tend to make snap judgments based on gut feelings rather than data. To avoid snap, emotion-laden judgments, program evaluators explicitly state the judgment criteria and standards before they gather any data.

For example, Murray and his middle school colleagues in the example above might use these criteria to evaluate the effectiveness of block scheduling:
- Students on the block schedule will master a higher percentage of items on the state criterion-referenced assessment in reading comprehension, math problem solving, science knowledge, and expository writing than similar students who aren’t on a block schedule.
- Students on the block schedule will show more engagement during academic classes than similar students who aren’t on a block schedule.
- Students on the block schedule will demonstrate greater perseverance when faced with a difficult learning task than students who aren’t on a block schedule.

Another reason for defining judgment criteria up front is that frequently these yardsticks will dictate the kinds of data evaluators need. For example, if the criteria for judging the effectiveness of the Drop Everything and Read (DEAR) program is “Our students will read significantly more fiction books during the semester,” the teachers know they will need to collect data that show the number of fiction books read by students the semester before implementation of the DEAR program, as well as the number of books they read during the semester of implementation.

Educators can glean ideas for the judgment criteria and standards by asking
### Example: Evaluation Planning Matrix

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<tbody>
<tr>
<td>1. Do students learn math concepts better by using math journals?</td>
<td>Some demonstration of student understanding comparing classes that used journals and classes that didn’t.</td>
<td>● Weekly quizzes</td>
<td>Me</td>
<td>11/15</td>
<td>I will calculate mean scores 11/17.</td>
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<td></td>
<td>● Student-written explanation of concepts</td>
<td>Me</td>
<td>11/17</td>
<td>I will calculate mean scores on rubric by 11/22. Kids will tally. I will do %s by 11/25.</td>
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<td></td>
<td></td>
<td>● Student questionnaire</td>
<td>Me</td>
<td>11/22</td>
<td></td>
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<td></td>
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<tr>
<td>2. Do students improve their problem-solving thinking by using math journals?</td>
<td>Some demonstration of student problem solving comparing those who used journals and those who didn’t.</td>
<td>● Scores on ITBS math problem-solving action</td>
<td>Me from counselor</td>
<td>4/15</td>
<td>I will calculate mean scores by 5/1.</td>
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<td>● Scores on math problem-solving section on state assessment</td>
<td>Me from counselor</td>
<td>12/1</td>
<td>I will pull mean scores by 12/15.</td>
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<tr>
<td></td>
<td></td>
<td>● Student questionnaire</td>
<td>Me</td>
<td>11/22</td>
<td>Kids will tally. I will do %s by 11/25.</td>
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**What is the value of math journals?**

**STEP 4: COLLECT DATA**

Program evaluators use three basic methods to gather information:
- **Reviewing documents or artifacts**;
- **Asking people for facts or opinions**; and
- **Observing situations and behaviors**.

No matter which data collection methods they use, evaluators should keep them simple and reliable. “Simple” means relying on existing data when possible and making data collection easy for both those who provide the data and those who collect the data. “Reliable” means using systematic and impartial methods to gather data.

**STEP 5: ANALYZE DATA**

Step 5 consists of three tasks: organizing, describing, and analyzing the data. Organizing data involves putting the data into some sort of frequency table. One way to organize test scores is shown on the following page in the chart, “I feel most in control when I am...” The accompanying chart, “I can make a difference in my life,” displays a frequency table summarizing data from a survey.

When describing data, both pictures and numbers work well. Some common graphs used to summarize and display data include bar charts, line charts, pie charts, pictograms, scatter plots, and box and whisker plots. Evaluators can also describe a set of data by using numbers. The mean, median, mode, range, and standard deviation can indicate both the central tendency and the variability within a data set. Spreadsheet computer programs can generate elegant graphs, and also calculate various measures of descriptive statistics in a flash.

In analyzing data, program evaluators seek to answer a range of questions. Some answers to these questions rely solely on logic and critical thinking, while others also require analysis using inferential statistics. This is the point in an evaluation where technical knowledge...
about statistics and research comes in handy.

STEP 6:
INTERPRET THE RESULTS

In Step 6, the educators-turned-evaluators can finally answer the questions posed in Step 1. No matter what type of questions they posed, the evaluators should follow a similar process to interpret the results of their analyses.

First, look for patterns. Do most of the student opinions point to a positive learning environment within the school? When do most of the fights in the hall occur? Do students on the block schedule achieve as well as or better than those not on that schedule? Using some sort of summary matrix can often help evaluators see the patterns emerge.

Next, using these identified patterns, draw conclusions that will withstand the scrutiny of supporters and critics alike. Finally, apply the pre-established criteria and standards set in Step 2 and make judgments about the effectiveness and worthiness of the program.

As they interpret their findings, teachers and principals should be aware of various pitfalls that can render an evaluation useless. Some common missteps include:

● Seeing what they want to see, rather than the facts.
● Looking at the data only through a “microscope,” thus failing to see the big picture.
● Performing only an “eyeball” test of significance and concluding that any change is significant.

CONCLUSION

The six-step evaluation process outlined above puts the power of data in the hands of those who most need it—the teachers and principals who are on the “front lines” with kids. The process prepares these educators for the implied seventh step in the process: Taking action to improve student learning, and continually re-evaluating the situation and the actions taken to see if modifications should be made. By helping teachers and principals acquire the skills of program evaluation, staff developers can cultivate educational professionals who use data, and not just instinct, to guide their classroom and school practices.
Resources for using data

Here is a list of recommended print and Internet resources on using data to guide instructional decisions. Many of these resources can serve as jumping-off points for educators who are just beginning to explore data-driven decision-making. You can access a more complete list of resources at author Brenda LeTendre’s web site: www.pittstate.edu/edsc/ssls/letendre.html.

GUIDES


INTERNET RESOURCES

- **CLEARINGHOUSE ON ASSESSMENT AND EVALUATION**
  
  http://ericae.net/intass.htm
  
  Connects to the home page of the Clearinghouse on Assessment and Evaluation, sponsored by the Educational Resources Information Center (ERIC) funded by the U.S. Department of Education. A great jumping-off site to a myriad of topics all related to assessment and program evaluation. Simply click on the category of your choice and immediately you see links to quality Internet resources on the topic. A sampling of categories includes: action research, achievement data, alternative assessment, fairness in testing, goals and standards, instructional and program evaluation, organizations, pedagogy in educational measurement (much how-to stuff here), qualitative research, statistics, test descriptions, test reviews, and tests online.

- **GLASS, GENE**
  
  http://olam.ed.asu.edu/~glass/502/
  
  Connects to Professor Glass’ web site supporting his course “Introduction to Quantitative Methods” taught at the College of Education at Arizona State University. Provides clear explanations with graphics illustrating concepts dealing with data analysis. Periodically asks questions to check your understanding and then gives you answers. Includes links to other statistics resources for “another treatment” of the topics. Not heavy on the statistical/mathematical symbols. Concentrates on explaining the concepts, but does show how to calculate various descriptive and inferential statistics using a computer program.

- **METETAL, GWYNN**
  
  http://www.iusb.edu/~gmetteta/
  
  Takes you to Professor Mettetal’s web page at Indiana University-South Bend, where you’ll find links to action research web sites. Also includes a handy piece called “How to report statistics, a quick guide.”

- **TEST REVIEW LOCATOR**
  
  http://ericae.net/testcol.htm
  
  Connects to the Test Review Locator, a searchable database giving descriptions and reviews for various testing instruments. Sponsored by the federal government’s Educational Resources Information Center (ERIC). Also allows you to search the 10,000 tests included in the Educational Testing Service (ETS) Test Collection. The Test Collection encompasses virtually all fields within education and the social sciences. Also includes a helpful document giving tips on selecting tests appropriate to your purpose.

- **TROCHIM, WILLIAM M.K.**
  
  http://trochim.human.cornell.edu/kb/ANALYSIS.HTM
  
  Connects directly to the “data analysis” section of Professor Trochim’s “The Knowledge Base, An Online Research Methods Textbook” at Cornell University. The best site I’ve found dealing with data analysis. Covers the concepts and procedures of organizing data, describing data, and using inferential statistics. Great graphics, clear explanations, enough detail yet doesn’t overwhelm the reader. Very user friendly.

PRINT RESOURCES

- **Data analysis for comprehensive schoolwide improvement by Victoria Bernhardt. Larchmont NY: Eye on Education, 1998.**
  
  A dy-no-mite book!! Very practical. Written in easily understood language with a collegial tone. Thoroughly walks through how two schools (one elementary and one high school) used data to make decisions. Excellent illustrations. Gives suggestions on gathering, displaying, and analyzing data from the following dimensions: (a) demographics, (b) perceptions, (c) student learning, and (d) school processes. Illustrates 10 levels of analysis from “snapshots” to the interaction of multiple measures over time.

- **Put to the test: An educator’s and consumer’s guide to standardized testing by Gerald Bracey. Bloomington, IN: Phi Delta Kappa, 1998.**
  
  One of the best explanations of standardized tests I’ve seen. Gives an excellent overview of the purposes and uses of standardized tests and then clearly explains how test makers construct norm-referenced and criterion-referenced tests. Also covers performance tests. Provides a
jargon-free explanation of how to interpret tests, complete with sample printouts. Also provides a brief but clear discussion of basic descriptive statistics.

- **A hands-on guide to school program evaluation** by E.A. Brainard. Bloomington, IN: Phi Delta Kappa, 1996.

  Packs into 70 pages a good overview of program evaluation. Quickly walks through a 10-step process for planning and conducting an evaluation. A good “starter” book for teachers and administrators alike.


  Very user friendly and makes the assumption that the reader is an intelligent person who happens to be naive about conducting surveys. Covers the process from start to finish, from planning to designing to conducting to analyzing to presenting findings. Includes many real world examples. Gives an excellent overview of how to do various statistical analyses of survey data. Can act as good reference on doing survey research and evaluation, since you can easily turn to the section you want and get the information you need.


  Grew out of the author’s experience in teaching a graduate course on educational research. Deals with both research and program evaluation, with the purpose of creating reflective practitioners. Ably guides the educator through the research process, from identifying what to study, selecting a research design, collecting data and finally analyzing and interpreting data. Hits that happy medium between too much and too little information. Includes periodic exercises (with answers provided) so that you can check your understanding of concepts.


  Written for practitioners (both teachers and administrators) interested in whole school improvement. Focuses on providing educators with the guidance and tools to answers the following questions: How are we doing? How can we improve? How can we share our successes? Includes an annotated list of suggested readings at the end of each chapter.


  Targets practicing teachers (Pre-K-12) who wish to conduct research that will inform their work with children. Written in a collegial tone with many detailed samples of data collection and data analysis techniques. Examples come from the work of practicing teacher-researchers (listed in the appendices of the book). Chapter 2 covers note taking while “kid watching,” surveys, student work and classroom artifacts, sociograms (one of the best explanations and examples of how to do this and what it tells you as a teacher), and the use of audio and video tape transcriptions. Chapter 3 includes a good discussion of how to find and refine a research question.


  Provides a comprehensive guide for taking stock of your school or district. Includes judgment criteria as well as suggested indicators dealing with the following areas: mission, goals, organizational culture, strategic planning, management, leadership, instructional services, decision making, policies, procedures, and school-community relations at both the district and school levels. Also provides sample surveys that you could use to collect the data you need to make your judgments.


  Chapter 6 focuses on “Responsive Action Research” where an educator gathers data to help solve a problem.

  Gives a step-by-step explanation of the action research process, along with two case studies showing how two teachers used the process to solve the problems of unresponsive students and poor relationships among students of different racial groups.

- **How to evaluate your middle school: A practitioner’s guide for an informal program evaluation** by S.L. Schurr Columbus, OH: National Middle School Association, 1992.

  A must for middle-level educators wanting to know if their programs fit the needs of their students. Provides more than 25 survey and observation instruments based on the characteristics of exemplary middle schools.
There are many reasons schools don’t use data well. In many schools and districts, data analysis has never been viewed as a high priority. Many state education departments put little emphasis on schools gathering data, and thus provide little incentive for districts and schools to devote time, money, and staff resources to using data in new ways. School-based educators often lack the training, equipment, and time to develop and carry out complex analyses. And many educators fear data analysis, instead of embracing it as a way to make their jobs easier and more rewarding, because they fear data will be used to scrutinize and even attack them.

oo often, schools in this country conduct their education programs with little formal analysis of how well those programs work. Teachers and administrators rely instead on “gut feelings” about what’s working and what isn’t.

They try to be optimistic, hoping that they are doing the right things, but they never get a clear sense of whether their program is working particularly well. Neither do they analyze their goals and challenges systematically, which robs them of the chance to ask better questions and get answers that can lead to meaningful change in classroom practice.

Victoria L. Bernhardt is executive director of Education for the Future, an initiative that supports schools as they work with data. She can be reached at 400 W. First St., Chico, CA 95929-0230, (530) 898-4482, fax (530) 898-4484, e-mail: vbernhardt@csuchico.edu.

There are many reasons schools don’t use data well. In many schools and districts, data analysis has never been viewed as a high priority. Many state education departments put little emphasis on schools gathering data, and thus provide little incentive for districts and schools to devote time, money, and staff resources to using data in new ways. School-based educators often lack the training, equipment, and time to develop and carry out complex analyses. And many educators fear data analysis, instead of embracing it as a way to make their jobs easier and more rewarding, because they fear data will be used to scrutinize and even attack them.
These are serious issues which educators must address in coming years. But meanwhile, schools can still use data to provide meaningful, ground-level guidance on teaching practice. You don’t need an advanced degree in statistics and a roomful of computers to start asking data-based questions about your school, and using what you learn to guide reform.

Here we present a model that lets a school quickly begin posing and answering data-based questions about teaching and learning. As educators become more familiar with collecting and interpreting school data, they can begin “running data at each other,” framing questions that require analysis of multiple types of information. Educators can cross two, three, and four categories of data in ways that can provide new insight into student learning and how to improve it. This process can help:

- Replace hunches and hypotheses with facts;
- Identify root causes of problems, not just the symptoms;
- Assess needs, and target resources to address them;
- Set goals and keep track of whether they are being accomplished; and
- Focus staff development efforts and track their impact.

BEYOND TEST SCORES

Gathering data in a school means looking at students, teachers, and the school community in many different ways. Test scores alone won’t tell you who your students are, what qualities are shared by the ones doing well, and why others are not as successful. A better-rounded picture of a school and its students gives teachers much clearer information to use when examining their daily practice.

An effective data analysis of a school or program can include four different types of data:

1. **Student learning data** describe an educational system in terms of standardized test results, grade point averages, standard assessments, and other formal assessments. Analyzing one year of student learning data, schools can answer questions like, “How did students at the school score on a particular standardized test?” Over time, schools can answer questions such as, “Are there differences in student scores on standardized tests over the years?”

2. **Demographic data** provide descriptive information on items such as enrollment, attendance, grade level, ethnicity, gender, home background, and language proficiency. Demographics are very important because they describe the part of our educational system over which we have least control. Demographics help us understand past trends and predict future trends. One year of demographic data can answer questions like, “How many students are enrolled in the school this year?” Over time, that same question can be rephrased as, “How has enrollment in the school changed?”

3. **Perceptions data** help us understand what students, parents, teachers, and others think about the learning environment. Perceptions are important since people act based on what they believe. It’s important to know how students, teachers, and parents think about school, what relations have been like in the past, and what expectations they have for the future. Perceptions data can be gathered in a variety of ways, such as questionnaires, interviews, and observations. One year of perception data could answer the question, “What are current parent, student, or teacher perceptions of the learning environment?” Over time, the question we might want to answer is, “How have perceptions of the learning environment changed?”

4. **School process data** define programs, instructional strategies, and classroom practices. This is the measure that seems to be hardest for teachers to describe, yet it is the one type of data that’s most readily available to document. To collect school process data, educators must

Why schools don’t use data well

**LACK OF CULTURAL EMPHASIS**

Within the school and district, data analysis is not deemed particularly important. District personnel are still working within antiquated job definitions that do not make helping schools with data a priority. Likewise, many state education departments put little emphasis on data analysis, providing little incentive for districts and schools to change. Teachers and administrators don’t see data collection as part of their jobs, perceiving it instead as a waste of time: “After all,” they might say, “we’re here every day, we already know what the problems are.” There is no person or group of people specifically assigned to this task in a school.

**LACK OF TRAINING**

Too few people at the school level are adequately trained to gather and analyze data, or to establish and maintain databases. There are not enough good examples of schools gathering, maintaining, and benefiting from the use of data. Teachers don’t have access to adequate computer resources, including hardware and specialized data software, nor would they know how to use them.

**FEAR**

Many educators are afraid that data analysis will turn up something they do not want to see, such as evidence of their incompetence. They’ve seen test scores and other data analyses used to “beat up” other educators – a district may, for example, use student test scores as evidence that a particular school should be reconstituted.
For further reading

The examples and concepts in this article are presented in greater detail in *Data Analysis for Comprehensive Schoolwide Improvement* by Victoria L. Bernhardt (Larchmont, NY: Eye On Education, 1998). For more information, contact Eye on Education, 6 Depot Way West, Larchmont, NY 10538, (914) 833-0551, fax (914) 833-0761.

**ADDITIONAL RESOURCES INCLUDE:**


**DUAL MEASURES**

One category of data by itself gives useful information especially over time. “Crossing” different measures, however, can provide much deeper insight. Crossing two measures, we begin to see a much more vivid picture of the school, allowing us to pose and answer questions such as:

- Do students who attend school every day get better grades? (Looking at demographics and student learning.)
- Do students with positive attitudes about school do better academically, as measured by teacher-assigned grades? (Perceptions and student learning.)
- Did students who were enrolled in interactive math programs this year perform better on standardized achievement tests than those who took traditional math courses? (Student learning and school processes.)
- What strategies do 3rd grade teachers use with students who are not native English speakers? (Demographics and school processes.)
- Is there a difference in how students enrolled in different programs perceive the learning environment? (Perceptions and school processes.)
- Is there a gender difference in students’ perceptions of the learning environment? (Perceptions and demographics.)

**THREE-WAY INTERSECTION**

Examples of how three measures can intersect at the school level could include:

- Do students of different ethnicities perceive the learning environment differently, and do they score differently on standardized achievement tests in patterns consistent with these perceptions? (Demographics and perceptions and student learning.)
- Which program is making the biggest difference this year with respect to student achievement for at-risk students, and is one group of students responding “better” to the processes? (School processes and student learning and demographics.)
- Is there a difference in students’ reports of what they like most about the school, and is this different if they participate in extracurricular activities? Do these students have higher grade point averages than students who do not participate in extracurricular activities? (Perceptions and student learning and school processes.)
- What instructional process did non-English speaking students respond to best in their all-English classrooms this year? (Perceptions and demographics and school processes.)

**INTERSECTION OF FOUR MEASURES**

When educators examine data from all four categories over time, they are able to pose and answer questions that will predict if their actions, processes, and programs will meet students’ needs. An example of a question that addresses demographics, perceptions, school processes, and student learning:

Are there differences in achievement scores for 8th grade girls and boys who report that they like school, and do these differences correlate with the type of program in which they are enrolled?

**ADDRESSING A PROBLEM**

Here is an example of how a school has crossed different data to define and address a problem:

The author has worked as a consultant with a large elementary school in northern California, where 42% of students are members of minority groups, 40% arrive speaking languages other than English, and 36% receive free- or reduced-price lunch.

Three years ago, the district superintendent announced that all students should be reading on grade level by 3rd grade. The school began by looking at student scores on standardized tests, and the number and percentage of students not meeting the grade-level standards. Next, they created a two-measure analysis and broke down the test scores by demographic qualities – including gender, ethnicity, and language fluency – to identify low-performing students.

The school then added a third measure to identify academic programs for these students. At this point they were
able to see a simple but powerful truth: Students who were not fluent in English were having the greatest trouble reading on grade level, and they weren’t responding well to the school’s reading intervention program. Based on these findings, teachers spent extra time reading with these low-achieving students, to identify their specific reading problems.

Teachers soon realized that these students did not adequately understand the meaning of many words, even though they were completing their assigned work in reading. The teachers decided newly arriving students should go first to classrooms where they would receive more work on word concept skills, and then into the reading intervention program. The teachers also sought professional development training on how to provide individualized reading instruction within groups of students.

This change in instruction has yielded results: Reading scores for non-English speakers improved immediately and have continued to improve. By the second year of the change, 2nd graders with limited English skills were scoring better on standardized reading tests than 3rd graders in this category had scored in the past. Non-English speaking students still don’t score as well on the tests as native English speakers, but the gap has narrowed.

What’s more, teachers at the school are far more familiar with using data – many have become adept at using the district’s new database software which lets them cross-analyze data more easily – and will continue to examine student achievement systematically as they seek further improvement.

CONCLUSION

Educators don’t need advanced degrees in statistics to begin gathering and using data in ways that will benefit schools and children. Teachers and school-level administrators can begin by asking questions about student achievement and teaching practice, and gathering many kinds of data so they can answer those questions in a systematic way.

While the deepest insight into schools and students can be gained by crossing different measures, to gain a more well-rounded picture of the school and its challenges, even a relatively simple analysis of school data can help teachers shape their practice more effectively.
Data alone have no value. Only when put to use do data have the potential to transform teaching and learning and systems.

Many people work in systems that are steeped in data — and are unfamiliar with how to use that data. Like households where exercise equipment clutters the basement, collecting dust while the people upstairs fail to get a healthy dose of aerobic exercise, schools and systems that don’t use the data they have collected are not meeting the purpose. What is the point of having equipment if it isn’t used?

Teacher leaders and coaches can take three critical steps to use data.

**Step 1**

The first is to understand the data and its source. District leaders and principals typically can provide a list of the various data available in a school. Victoria Bernhardt describes four kinds of data present in most schools.

Step 2

Once leaders have identified and collected the various data and the sources are clear, the second step is to analyze and interpret the data. Analyzing and interpreting are distinct processes. Analysis includes using the data to determine results. For example, if the results of this year’s state assessment are presented to the staff at a back-to-school meeting, the results alone do not provide much information. They may tell the staff what percentage of the students met the established standard for success. However, in the analysis phase when educators compare this year’s results with the last three years’ results, the data begin to make some sense.

Let’s look at a specific example. The results of the 2007-08 8th-grade reading assessment show that 71% of students are proficient. The school’s goal might have been to have 75% of students achieve proficiency. The staff might be disappointed at the results. Further analysis, however, might reveal that 77% of special education students achieved proficiency, up from 61% in 2006-07 and from 51% in 2005-06. The increase in proficiency among special education students is a point of celebration. In addition, the percentage of students in the below basic level might have been reduced from 30% to 10%. Again, this is a point for celebration. While this school did not meet its goal, groups of students showed substantial progress, and their gains are reason to appreciate teachers’ efforts.

Another part of the second step is interpretation. Some groups showed substantial improvements, yet what contributed to those improvements is as important as knowing that they...
occurred. The interpretation phase gives staff an opportunity to explore the meaning of the results. It’s important to understand what those 8th-grade reading scores mean. How did the special-education students improve so dramatically in such a short time? What changes in teaching, resources, staff, or professional development occurred in this time that might have influenced the results? Drawing conclusions about causation without an appropriately designed study would be inappropriate, yet it is possible to explore what changes teachers made in their classroom and how those changes might have influenced student performance, examining a wide variety of possible factors. For example, did the students whose data are being examined in 2007-08 perform better last year as 7th graders than the previous year’s 7th graders? The interpretation process digs deeper into knowing if there is a reason for the significant improvement.

**Step 3**

The third and most important step in the process of using data is to develop a plan of action based on what is known. If it’s true that two groups of students at 8th grade are making rapid gains, other groups must not be making the same level of gain. What will the school do to support the learning of all students, most particularly those who did not achieve the school’s standard of success? It is important to identify the students, understand any patterns of commonality among them, and examine what interventions exist at the classroom level, at the school as a part of the regular program, and at the school outside the regular program. Staff must know if these students accessed these interventions and which ones they tapped.

Once staff have answered these questions, teachers should set clear goals and plan a course of action. The course of action begins first at the classroom as part of the regular instructional program. What can be done in the classroom to improve students’ reading performance? Language arts teachers might integrate explicit instruction about reading skills into their classroom curriculum. All teachers in a school might benefit from professional development on reading strategies to use across the curriculum. The school might provide additional resources to classroom teachers appropriate to students’ varied reading levels. Teachers at a school might implement quarterly assessments of reading performance to identify students who are not benefiting from the most common interventions. The school might institute a read-a-thon, recognize students who read beyond their normal course work, offer library time for all classes, or provide any number of other incentives beyond the regular classroom; however, the classroom is the primary focus of intervention development.

As the interventions are moved from idea to action, teachers collect more evidence about students’ reading performance. These new data offer ongoing information for identifying students for whom the interventions are and are not working, which interventions seem to produce the best results, and knowledge for when an intervention can be retired.

These three steps describe the basic process for my statement about using data. Data alone provide limited information. Only by understanding the data, analyzing and interpreting that information, and moving from information to action through clear goals and plans of action to improve the areas targeted for improvement, will data be useful for improving student learning.

<table>
<thead>
<tr>
<th>TYPES OF DATA</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demographic</td>
<td>Describes the students, their families, the community, the staff, etc. (e.g., the number of second language learners in a school).</td>
</tr>
<tr>
<td>Achievement</td>
<td>Provides results of a wide variety of student academic assessments, including state, district, school, and classroom assessments (e.g., results of quarterly common assessments).</td>
</tr>
<tr>
<td>Perception</td>
<td>Includes results from various surveys about the opinions of stakeholders, typically parents, community members, and students (e.g., results of a student survey about their sense of safety within a school).</td>
</tr>
<tr>
<td>School process</td>
<td>Describes how the school or district operates in various situations so all stakeholders have clarity (e.g., student referral process).</td>
</tr>
</tbody>
</table>
TAKING DATA TO NEW DEPTHS

There’s a ton of data being collected. The trick is to know how to use it effectively

BY NANCY LOVE

When educators in one Texas high school saw African-American students’ performance drop slightly below 50% on their state mathematics test, putting the school on the state’s list of low-performing schools, they reacted quickly. Decision makers immediately suggested that all African-American students, whether or not they failed the test, be assigned peer tutors (Olsen, 2003).

Based on one piece of data and one way of looking at that data, these decision makers made assumptions and leapt to action before fully understanding the issue or verifying their assumptions with other data sources. They ignored past trends, which indicated that African-American students’ scores were on an upward trajectory. They failed to consider that the decline was so small that it could better be explained by chance or measuring error than by their instructional program. They considered only the percent failing without digging deeper into the data to consider what students needed. Finally, their proposed intervention targeted only African-Americans students, while overlooking Hispanic and white students who also failed the test.

The Using Data Project, funded by the National Science Foundation (NSF), helps mathematics and science educators develop data literacy — the ability to examine multiple measures and multiple levels of data, to consider the research, and to draw sound inferences. Teachers and administrators become data facilitators, leading school data teams to dig deeply into several data sources and, through reflective dialogue, learn to improve mathematics and science teaching and learning. And they learn, as the Texas example illustrates, that superficial data analysis can be worse than none.
Schools are gathering more and more data, but having data available does not mean the data are used to guide instructional improvement. Many schools lack the process to connect the data they have with the results they must produce. The Using Data Project focuses on developing professional developers, administrators, and teachers who can lead a collaborative inquiry process and strengthen the collaborative culture of their schools or departments. The aim is to influence school culture to be one in which educators use data continuously, collaboratively, and effectively to improve teaching and learning mathematics and science.

While collaborative inquiry is appropriate for any content area, it is particularly relevant for mathematics and science because the process mirrors for the adults what students experience in our best mathematics and science classrooms. Data teams investigate not scientific phenomena or mathematics problems, but how to improve teaching and learning. They raise questions, examine student learning and other data, test their hypotheses, and share findings with their colleagues.

The project stands for several shifts in how data have traditionally been used in schools. (See “Less emphasis, more emphasis” on page 24.)

Typically, one or two teachers, one administrator, and one NSF project staff member become data facilitators for a school. They then convene school-based data teams to focus on improving mathematics and science. Sometimes team members are from the mathematics or science department or are existing grade-level teams. Other times, the team is schoolwide.

CREATING DATA FACILITATORS

Data facilitators learn to facilitate teams and to use data in a 12-day workshop series over 11/2 to two years, with on-site follow-up and coaching several times a year for three years.

The professional learning program includes five segments: laying the foundation (committing to core values, establishing data teams, and working effectively in the school’s context); identifying the student learning problem; verifying causes; generating and monitoring solutions; and achieving student learning goals. In each segment, data facilitators conduct a sequence of activities and data experiences with their data teams, master relevant data concepts and tools, practice facilitation, and plan for implementation.

They then carry out those activities with their data teams with support from NSF project staff at the site and coaching from Using Data Project staff. They reconvene for the next segment of the workshop, reflect...
on their experiences, and learn how to implement the next segment of the program. (See the Using Data Process chart, above.)

For example, in the segment on identifying a student learning problem, data facilitators practice analyzing multiple levels of student learning data. They start with aggregate data trends, such as the percent of students proficient in state assessments in mathematics and/or science, then examine disaggregated data to understand how subgroups, such as African-American or Hispanic students, are performing relative to white students. They dig into the content strands, such as geometry, measurement, number sense, and problem solving, and analyze how students performed on individual test items. Finally, they collect and examine student work on items and strands of greatest concern to understand student thinking.

If data facilitators have only one source of data on student learning, they collect additional data such as local assessments or common grade-level and course assessments for the next data facilitator session. The process emphasizes triangulating data, using three different sources of student learning data before identifying the student learning problem. By triangulating, data facilitators guide data teams to test hunches with other data instead of drawing conclusions from a single measure.

For example, when the Canton City, Ohio, data team looked at its state assessment results in science, team members were surprised to discover that students performed poorly in life science, even though life science is emphasized in their curriculum. The team suspected that this had more to do with the test than with their science program, but they held off drawing conclusions or taking action until they looked at additional data. When they saw a similar pattern in their norm-referenced data, they decided to focus on the life science problem.

Data facilitators also learn to interpret data — learning to determine what differences in year-to-year or group-to-group test scores are meaningful statistically and educationally (Carr & Altman, 2002).

**DATA SHIFTS**

After analyzing data in their workshop sessions, the facilitators return to their schools and lead their data teams through the same kind of data analysis experiences they have had. Their job is not to analyze the data for everyone else, but to foster collaboration, build data teams, and facilitate powerful conversations about data — conversations that lead to improved teaching and learning.

To help bring about these cultural shifts, data facilitators learn a variety of tools and processes for making work with data a positive and collaborative learning experience for the data team. One tool is data-driven dialogue, a structured process for making sense of data (Wellman & Lipton, 2004). First, team members predict what they think they will see in the data. Predicting activates prior knowledge, surfaces assumptions and questions, and prepares and motivates the data team to learn from the data.
example, a team member might say, “I predict that physical science will be our weakest content strand on our 4th-grade state test results.” Next, data team members make factual observations only, such as, “25% of our 4th-grade students were proficient in physical science in the state test in 2003.” This phase extends the opportunity to explore and discover the data before jumping to explanations or conclusions. Finally, data team members interpret the data. For instance, a team member might say, “I think our results in physical science are because our teachers do not feel comfortable with the physical science content they are supposed to teach.” Participants test their interpretations by collecting additional evidence to support them.

In their data facilitator workshops, data facilitators use the “go visual” principle, first developed by nonverbal communications expert Michael Grinder (1997). Grinder revealed the power of large, visually vibrant and color-coded displays of data in fostering group ownership and engagement. Data facilitators work with the team on one data report at a time to avoid overload and confusion. For each report, they create a colorful newsprint-sized graph displaying the results and post it on their “data wall.” Then they record their observations and inferences on additional pieces of newsprint that they post under their chart. As they work with additional data, they add more graphs and more observations and inferences to their data wall.

Stoplight highlighting is another “go visual” tool for color-coding that data facilitators learn to use with their teams (Sargeant, 2004). Based on No Child Left Behind Act requirements and/or state and district goals, data teams set criteria for high performance, performance below expectations, and performance that is urgent and in need of immediate improvement. They then color code each graph using green (high performance), yellow (below expectations), and red (urgent) markers. With stoplight highlighting, urgent areas pop out across the multiple data sources on the data wall.

All this takes place before the team makes any decisions. Data-driven dialogue creates a more thoughtful decision-making process by bringing out multiple perspectives. Teachers embrace solutions because they own the student learning problems that emerge from their own data analysis.

Data facilitators learn how to facilitate data-driven dialogue through repeated practice, feedback from Using Data Project staff, and self-reflection both in workshop sessions and on site with their data teams.

ROOT CAUSE ANALYSIS

“Once you find out what your weak points are, you can begin to decide what is causing them and intervene in those areas,” explained Stark County Data Facilitator JoMarie Kutscher. Data facilitators learn that to uncover root causes of students’ poor performance, they collect and analyze other kinds of data, such as disaggregated course enrollment data, interviews with students, classroom observations, and survey data.

In the TASEL-M Project, for example, mathematics teachers from four Orange County, Calif., high schools and their feeder middle schools cross-tabulated disaggregated student achievement data with disaggregated course enrollments. They discovered that subgroups performing poorly in mathematics often were those trapped in low-level mathematics courses. The data teams used the information as a catalyst and guide to expand opportunities to offer rigorous mathematics instruction to more students.

While local data can uncover achievement gaps and specific student learning problems, those data are not sufficient. To understand possible causes and solutions, teams must consider relevant research on mathematics and science achievement. The message in the research is that quick fixes like teaching to the test or tutoring a few students are unlikely to produce sustained improvement in student learning.

Making the time together count

If teachers don’t share a purpose and commitments, their time together can be wasted. Making commitments is fundamental to a collaborative culture and the work of the Using Data Project. Two core commitments underlie the work:

1. We have a collective and moral responsibility to close achievement gaps.

Teacher must feel shared responsibility — a moral obligation to be responsive to students and their needs and outrage about achievement gaps that have widened in the last several years (National Center for Education Statistics, 2001). According to Clifford Adelman’s research (1999), the greatest predictor for African-Americans and Hispanics completing college is access to higher levels of mathematics in high school. Mathematics is key to these students’ futures.

2. Closing achievement gaps is not just our responsibility, it is a real possibility.

We commit to doing this in three to five years. In the face of growing evidence (Briars & Resnick, 2000; Schoenfeld, 2002; Reeves, 2000; Education Trust, 2002), Mano Singh’s conclusion in his 2003 Phi Delta Kappan article rings true: “There are no genetic or other immutable traits that could conceivably be the cause of the gap. Thus the problem is manifestly one that can and should be solved.”
Data teams take the time to dialogue about multiple data sources and about the research so they can clearly define a student learning problem and its causes based on evidence, not speculation. Collaborative inquiry focuses on improving student learning. Once a student learning problem is identified and root causes are verified with data and research, data facilitators help the data teams set specific, measurable student learning goals and construct an action plan that specifies how the actions they propose will produce the results they intend. Data teams can then conceptualize a theory of action as a chain of events, starting with their input or action steps and ending with improved student learning. Along the chain are interim results such as increased teacher knowledge, changes in instructional practice, or the use of rubrics and performance assessments. Then they test their theory by monitoring the interim outcomes and final results. Unlike action plans generated from the top down, teachers are invested in the solutions they generated from their own collaborative inquiry.

As Richard Dinko, co-principal investigator of Stark County (Ohio) Mathematics and Science Partnership, said, “Until teachers started talking deeply about the data, they would create plans that never got implemented. The best thing about the Using Data Project is that it engages teachers in deep discussion of data.”

“Using data used to mean rubbing teachers’ noses in poor performance,” he said. “But that didn’t get us anywhere. Now we have a process that gives teachers a voice and a lens for looking at data. With teachers as the change agents, we are starting to see real movement.”

REFERENCES


Using data to redesign instruction is a means of increasing student achievement. Educators in Camden County (Ga.) Schools have used data from benchmark testing since 1999. They hired a commercial vendor to design a benchmark test that is administered four times a year and use the data to generate subject-area reports that can be further disaggregated by grade, team, teacher, and student. To use data, teachers must accept the data, know what the numbers indicate, and be ready to change their instruction (Wiggins, 2004). Therefore, teacher leaders in each of the 12 schools organize the test data and help teachers through the stages of growth that are inherent with data usage (Trimble, Gay & Matthews, 2005).

Camden uses three steps to get the most out of its test data:
1. Schedule intensive data sessions;
2. Prepare data for teachers to examine; and
3. Lead teachers in data analysis.

1. DATA SESSIONS
The first step in using data is to
schedule data sessions as soon as the results are ready and mark data sessions on the benchmark calendar. Benchmark data are “real-time data” — that is, they measure the learning of the students that teachers are currently teaching. The teachers need results immediately so they can revise their instruction for the same students who took the test.

Provide uninterrupted time for teachers to study their results, and do not schedule data sessions on school picture days or pep rally days. Keep in mind that the first time that teachers examine data, they will need plenty of time to digest it. Some schools in Camden set aside a half day for the first data session. In the middle level and high schools that operate on a block schedule, a single block may suffice.

Schedule by teams of teachers to enable discussion about the data among peers. Common planning periods allow teachers the collegiality to share and support each other. Elementary schools often conduct data sessions by grade level.

2. PREPARE THE DATA

The principal and the lead teachers must organize the data and prepare sample strategies to improve student learning before the first data session. Teachers can be resistant to changing their instructional strategies so organizing the data well is important.

**Start with the big picture**

Begin by examining the data reports of the whole school, then look at the reports that disaggregate the data by grade, by teacher, and by individual student. This will help you identify overall school trends and big areas of need that relate to standards or objectives. Lead teachers are essential to this process because they know the subject areas and the teachers’ responsibilities.

**Examine team-level data**

Look for categories of weakness and identify individual objectives; these are “intensive care” objectives. Compare these areas with other grades. For example, if the reports reveal that students in grade 7 struggled with elements of plot in literature, see whether students in grades 6 or 8 also scored low in that area. It helps to prepare a comparison chart of school-level highs and lows by grade levels. Once you have identified areas of need by standards, turn to the tests themselves and identify the questions where student scored poorly. Determine whether test items were confusing or poorly worded and be ready to help teachers analyze these items.

**Identify resources**

Choose four or five areas of weakness and find resources that address those areas. Prepare copies of activities, web sites, and performance tasks for each teacher on the team. Keep in mind that the goal is to match intensive care objectives with additional strategies and materials. Prepare to model a new strategy. If playing a game will help teachers reteach students a specific skill, be prepared for the team to actually play the game during the session. If a web site offers a lesson that teaches the concepts in a new way, bring a computer to the meeting and guide the team of teachers through the site.

**Keep records**

Save all materials for the first session in one place. These materials include files of the data reports, copies of the benchmark test with answers, individual folders of test results for each teacher, and resource materials prepared for intensive care objectives.

3. MEET WITH THE TEACHERS

Instructional leaders must be prepared for teachers’ reactions to the data when they see them for the first time. When faced with poor test scores from students they are currently teaching, teachers initially feel frustrated and anxious; they may feel that the data indicate a judgment of their ability and performance. Teachers should receive sufficient time to vent without comments from the instructional leaders.

Instructional leaders should express congratulations for the overall excellence of the reports. If the overall scores are not excellent, they should mention areas that do show progress. To help keep the meeting on track, teachers should receive copies of the agenda, such as:

- Examine the test: 10 minutes
• Review the data: 40 minutes
• Learn a new strategy: 20 minutes
• Develop an action plan: 20 minutes

Examine the test

Begin the session with a review of the test. The purpose of this key step is for teachers to examine the test items for problematic wording. Distribute teacher copies of the benchmark tests with answers and objectives clearly identified. The lead teacher can point out that if the test item was ambiguous or of poor quality the student test results may be unreliable. Be prepared for teachers to attack the test. The lead teachers can help teachers vent by accepting the comments without defending or reacting negatively to such comments as “That last question seems vague to me; I bet they missed that one” and “We don’t use that word…who designed these questions anyway?” Many times teachers will say, “I didn’t teach that yet” or “I didn’t use those terms (or format) when I taught it.” Allow 10 minutes for such criticisms and then move on to examining the test results.

Review the data

Each teacher should receive a copy of the testing report for his or her own classes and a copy of the benchmark report showing the results for the entire grade level. Each teacher should use the reports to examine his or her students’ performance and compare it to the overall grade-level average.

Class reports can be shown in bar graph format to illustrate the level of mastery for each objective or standard for each teacher’s classes. The lead teacher should direct teachers to look at the highest and lowest bars on the graphs and the corresponding objectives or standards they represent. The teachers will often turn to the test questions that assessed these objectives and begin to ask one another how some teachers’ classes achieved the high scores in areas where other teachers’ classes received low scores.

This interaction marks the beginning of true collaboration. For example, if a class shows particularly high scores on figurative language, other teachers will probably ask that teacher how he or she taught that class and what strategy and material he or she used. These discussions can help teachers develop ideas for reteaching. This is also a good point at which to plan to address the gaps in learning and find ways to incorporate review in the upcoming units and lesson plans in anticipation of state-mandated tests.

Respect teachers’ privacy

Do not give out any report that identifies another teacher individually. Teachers always want to know how they compare with their peers. This is natural but it would be unfair to show each teacher’s class results. For example, teachers who teach special education students in a collaborative classroom will have scores that might not compare fairly with classrooms that contain a number of students who participated in the gifted program.

Learn a new strategy

The teacher leader models a strategy, graphic organizer, game, or other instructional piece that specifically addresses one of the objectives on which students earned low scores. He or she presents web sites or other resources that teachers can use to reteach the objectives to their classes. Teachers should receive time to practice the new strategies and become comfortable with new resources before trying them in class.

Create an action plan

The lead teacher asks the teachers to work together to decide how to revise their instruction for specific intensive care areas. Lead teachers can help by suggesting some of the following additional strategies for revising instruction.

• Item analysis with their students. Teachers and students look at specific questions and answers for frequently missed items on the benchmark tests.
• Group students by common weakness. Teachers can identify students who share common weaknesses and group them together for instruction. During social studies class, for example, one teacher might teach a group of students who need to learn map skills while another teacher teaches a lesson in the economics of a region. For some teams, using the first 45 minutes of the day or an
instructional block as “re-teach and review” time can be effective.

- **Examine student work.** Structure a team meeting so teachers can look at the results of a lesson. They can share ideas about the reasons for the success or lack of success of that lesson.

**Focus on the positive**

These steps require teachers to move beyond the tried and true to improve their instruction. As teachers are working through these steps, school leaders must be careful not to be critical. This is not a good time to do annual evaluations. Teachers will need support and encouragement as they try to reach students in new ways. They will also need reassurance that they won’t be penalized for attempting new strategies.

Data from benchmark tests are only useful if teachers and principals know how to use them to modify instruction. These steps can help school leaders make the most of benchmark data.

**References**


Crafting data summary statements

Comments to facilitator: This activity will assist the team in focusing on what it has learned from the data it has collected about the school. As the team compares this data to its vision for the school, it should be able to identify the steps the school needs to take to reach identified goals.

Materials: Several copies of the data summary sheet, various data sources, chart paper, markers, pens.

Directions

1. Complete the Data Summary Sheet (see Page 5) for each of your data sources. Be as complete as possible. Think about other possible summary tables that might also be created. For example, after completing the sample data summary sheet, you may notice that girls in 4th through 6th grades are underachieving in mathematics. You could create another data summary table in which you break out the girls by ethnicity to see if a pattern emerges.

2. Summarize the data by writing a statement based on the data. As you review the data, consider:
   - Which student sub-groups appear to need priority assistance, as determined by test scores, grades, or other assessments? Consider sub-groups by grade level, ethnicity, gender, language background (proficiency and/or home language), categorical programs (e.g., migrant, special education), economic status, classroom assignment, years at our school, attendance.
   - In which subject areas do students appear to need the most improvement? Also, consider English language development.
   - In which subject areas do the “below proficient” student sub-groups need the most assistance?
   - What evidence supports your findings?

3. For each data summary statement, brainstorm all the possible reasons why the data show what they do. For each reason, identify data or facts that support that assertion. If no data exist, determine how to locate data that would support the assertion. Continue asking “why” until the root cause of the problem or need has been identified.

Source: Comprehensive School Reform Research-Based Strategies to Achieve High Standards by Sylvie Hale (San Francisco: WestEd, 2000). See Page 7 for ordering information.
# Data summaries

**Data type:**
(e.g., enrollment, student achievement, total, attendance, student achievement reading)

**Data source/measure:**
(e.g., SAT9, school records, staff survey)

**What the numbers represent:**
(e.g., percentage of students below grade-level; number of students higher than 4 on district math assessment; percentage of students who say they like to read)

<table>
<thead>
<tr>
<th>STUDENT CHARACTERISTIC</th>
<th>Grade Level</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHNICITY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>African-American</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Native American</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GENDER</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INCOME</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-income</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not low-income</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LANGUAGE ABILITY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fully proficient</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Limited proficient</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-proficient</td>
<td></td>
<td></td>
</tr>
<tr>
<td>English only</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPECIAL POPULATIONS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Migrant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Title 1 Target Assist</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Special education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preschool</td>
<td></td>
<td></td>
</tr>
<tr>
<td>After-school</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Write a statement summarizing the data collected above. A data summary statement or need statement does not offer a solution nor does it describe a cause or lay blame.

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**Source:** Comprehensive School Reform Research-Based Strategies to Achieve High Standards by Sylvie Hale (San Francisco: WestEd, 2000). See Page 7 for ordering information.
READY, ON THE DOWNBEAT

PLANNING PHASE

1. Assess evalability. Determine whether the staff development program is ready to be evaluated.

2. Formulate evaluation questions. Design formative and summative evaluation questions.

3. Construct evaluation framework. Determine the evidence needed to answer the evaluation questions, the data sources, the data collection methodology, logistics of data collection, and the data analysis methods.

CONDUCTING PHASE

4. Collect data. Manage data collection process and collected data.

5. Organize and analyze data. Organize, analyze, and display data.

6. Interpret data. Interpret data to determine merit, worth, and/or impact and to make recommendations for improvement.

REPORTING PHASE

7. Disseminate findings. Identify audiences to receive findings, the most appropriate format for communicating findings to each, and disseminate findings.

8. Evaluate the evaluation. Reflect on the evaluation process, the knowledge and skills of the evaluation team, the resources and methodologies used, and the findings to improve future evaluations.

SOLID FOOTWORK MAKES EVALUATION OF STAFF DEVELOPMENT PROGRAMS A SONG

BY JOELLEN KILLION

Evaluating the effectiveness of staff development and demonstrating its impact on student achievement are more important than ever.

The language in staff development policies requires districts to show evidence of professional learning’s ability to improve student learning.

The National Staff Development Council, some states’ legislation, and the federal No Child Left Behind Act all call for rigorous evaluation of professional learning programs (see “Dancing to the same tune” on the next page). With more emphasis on accountability, staff developers will want to explore ways to evaluate their programs and to link staff development to student learning. An evaluation also will help providers and leaders improve their programs.

“Evaluation is a systemic, purposeful process of studying, reviewing, and analyzing data gathered from multiple sources in order to make informed decisions about a program” (Killion, 2002, p. 42). A good evaluation of a professional learning program can be accomplished by following eight steps. This eight-step process is drawn from extensive practice and research in program evaluation.

STEP 1: ASSESS EVALUABILITY

The first step is determining the degree to which a program, as planned, is ready to be evaluated.
Sometimes staff development leaders and providers want to link an episode of staff development, such as a workshop or single professional development day, to student learning. This is nearly impossible because the workshop or professional development day alone is insufficient to produce results for students or teachers. Evaluations of partial or insufficient staff development programs likely will yield disappointing results.

Most staff development programs are inadequate to produce the results they seek. “We cannot expect results for students from a staff development program that is unlikely to produce them. And we cannot expect an evaluation to produce useful results when the program being evaluated is poorly conceived and constructed. Perhaps Chen (Chen, 1990) said it best: ‘Current problems and limitations of program evaluation lie more with a lack of adequate conceptual framework of the program than with methodological weakness’” (Killion, 2002).

Before evaluating any staff development program, the evaluator asks whether the program is feasible, clear, sufficiently powerful to produce the intended results, and worth doing. To determine whether a program is ready to be evaluated, an evaluator analyzes the program’s goals, its standard of success, indicators of success, theory of change, and logic model.

**GOALS**

A staff development program’s goals express its intended results in terms of student achievement. Instead of “provide training to all teachers” as its goal, a results-driven program has as a goal improving student achievement. A sample goal might be to:

- Improve student achievement in mathematics.
- Increase student participation in reading club activities.
- Reduce suspension rates in middle school.

**When the goals are expressed in terms of student achievement, the program’s design is more likely to include sufficient actions to achieve them.**

**Dancing to the same tune**

From NSDC to state and federal legislation, the call for evaluation is loud and clear.

**NSDC**

The National Staff Development Council’s Standards for Staff Development state, “Staff development that improves the learning of all students uses multiple sources of information to guide improvements and demonstrate its impact” (Evaluation standard) (NSDC, 2001).

In addition, the organization’s Code of Ethics for Staff Development Leaders, Principle III, states, “Staff development leaders continuously improve their work through the ongoing evaluation of staff development’s effectiveness in achieving school system and student learning goals.” The Code of Ethics for Staff Development Providers, Principle IV, states, “Staff development providers continuously learn and improve their performance” through ongoing evaluation of their work and feedback from clients, participants, and others affected by their work (NSDC, 2000).

**NO CHILD LEFT BEHIND**

No Child Left Behind, Title II, Part A, states that professional development programs will be “regularly evaluated for their impact on increased teacher effectiveness and improved student academic achievement, with the findings of the evaluations used to improve the quality of professional development.” It continues, “Ultimately the program’s performance will be measured by changes in student achievement over time as shown through the other NCLB reporting requirements.”

**STATES**

States, too, call for evaluating professional development. For example, in Florida, the state legislature enacted Florida Statute 231.600, School Community Professional Development Act, resulting in the Florida Professional Development Evaluation System Protocol. The protocol requires districts, schools, and other state agencies providing professional development to conduct ongoing formal evaluation to determine whether:

- The planned professional development was implemented;
- The new learning is applied in classrooms;
- The professional development contributes to student performance gains, if the effect of training on student achievement is demonstrated on standardized achievement tests or other achievement measures;
- The results of the evaluation serve as part of a needs assessment for determining which programs to offer or discontinue;
- Resources are appropriately allocated for professional development that meets state priorities of content standards, subject area content, instructional methodology, assessment, technology, classroom management, and school safety; and
- Overall school grades increase.
improve student achievement in mathematics by 2005 by 10% as measured on the state assessment. When the goals are expressed in terms of student achievement, the program’s design is more likely to include sufficient actions to achieve them.

**STANDARD OF SUCCESS**

A program’s standard of success is the benchmark that defines its success. It typically is a number representing the performance increase that, when met, is sufficient to declare the program a success. If the goal does not specify a particular degree of improvement, any degree of improvement, even 0.002, may indicate success. Most staff development leaders want a specific increase in student performance as a return on their investment. For example, in the goal above, the standard of success is 10%. If the staff development program increases student achievement by 10% in mathematics, it is declared a success. If not, it falls short of its intended results and may be altered to increase effectiveness in subsequent years.

**INDICATOR OF SUCCESS**

An indicator of success is the specific way success will be demonstrated. It is the way an evaluator will know if the standard of success has been achieved. In the example above of a 10% increase in math test scores, the indicator of success is student performance on the state assessment in mathematics. Certainly other indicators might be used to demonstrate students’ increased achievement in math: performance on other assessments, classroom tasks, enrollment of underrepresented populations in advanced level courses, grades, performance on a national standardized test, or a combination of these. Program designers might specify single or multiple indicators of success. Program designers must identify both a standard of success and indicator of success early when planning a staff development program so the program’s design can be tailored to achieve the desired results.

**THEORY OF CHANGE**

A theory of change requires program designers to think carefully about how their program will bring about the changes they want. A theory of change (see diagram below) specifies how change is expected to happen, the program’s components, their sequence, and the assumptions upon which the program is based (Killion, 2002). An explicit theory of change is a roadmap for program designers, managers, participants, stakeholders, and evaluators showing how the program will work. It is the big picture that serves as a planning tool, an implementation guide, a monitoring tool, and a tool for evaluating the program’s success. It allows the program designers to explain how they see the connection between educator learning and student achievement. Without the theory of change, the connection between the program’s components and its results may be unclear.

Any one program can have multiple theories of change. Individual theories are neither right nor wrong, but one may be more appropriate for a specific context and circumstances. Theories can be based on other theories, research, or best practice. For example, the social interaction theory of learning might serve as the basis for designing how adult learning happens in a professional development program. Based on this theory, participants would have multiple, frequent, in-depth opportunities to process their learning with colleagues.

**LOGIC MODEL**

A logic model is a particular kind of action plan that specifies the inputs, activities, initial, intermediate, and intended outcomes that will accomplish the identified goal. Thorough planning increases a program’s potential to succeed. Planning

**THEORY OF CHANGE FOR TECHNOLOGY INTEGRATION**

A SAMPLE

| 1. | Key leaders hold vision for project. |
| 2. | Leaders develop partnerships and plan for project. |
| 3. | Technology resources are readily available for teachers and students. |
| 4. | Teachers receive professional development that includes training, curriculum development, and support. |
| 5. | Teachers change classroom instructional practices. |
| 6. | Teachers provide inquiry and exploration-based student learning activities. |
| 7. | Students engage in learning. |
| 8. | Student achievement increases. |

**This theory of change is based on the following assumptions:**

- Thorough planning contributes to program’s success.
- Integrating technology advances student learning.
- To change instructional practice, teachers require opportunities to gain new knowledge and skills and appropriate resources.
- Implementing new teaching practices improves student achievement.
- When students are engaged in learning, they achieve.

SOURCE: Killion, Munger, & Psencik, 2002
ensures that all the program’s activities align with the intended outcomes and that initial and intermediate outcomes will lead to the intended results. A logic model provides a framework for conducting the formative program evaluation as well as for the program design. (See sample logic model above.) The logic model identifies the benchmarks of progress toward a goal. The short-term outcomes lead to medium-term outcomes that lead to long-term outcomes. With this map of the outcomes in place, evaluators are able to determine which outcomes are important to collect evidence about in order to explain the link between staff development and student achievement (Killion, 2002).

A logic model has several components.

• **Inputs:** Resources assigned to a program including personnel, facilities, equipment, budget, etc.
• **Activities:** Services the program provides to clients.
• **Initial outcomes:** Changes in clients’ knowledge and skill as a result of early activities.
• **Intermediate outcomes:** Changes in clients’ attitudes, aspirations, and behavior as a result of the knowledge and skills acquired.

### Logic model for professional development on technology integration

<table>
<thead>
<tr>
<th>INPUTS</th>
<th>ACTIVITIES</th>
<th>INITIAL OUTCOMES</th>
<th>INTERMEDIATE OUTCOMES</th>
<th>INTENDED RESULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Technology hardware, software, and infrastructure</td>
<td>Teachers and principals receive training on technology integration in mathematics.</td>
<td>Teachers and principals develop an understanding of how technology can enhance students’ mathematics learning, engage students more actively in learning, differentiate learning and assessment. <strong>Knowledge</strong></td>
<td>Teachers integrate technology into their mathematics instruction. <strong>Behavior and aspiration</strong></td>
<td></td>
</tr>
<tr>
<td>• Trainers</td>
<td>Technology resources are deployed in mathematics classrooms.</td>
<td>Teachers learn strategies for integrating technology into mathematics instruction. <strong>Skill</strong></td>
<td>Teachers integrate technology into their classroom instruction on a regular basis.</td>
<td></td>
</tr>
<tr>
<td>• Planning time for integrating technology into mathematics lessons</td>
<td>Teachers are coached on integrating technology into their mathematics curriculum.</td>
<td>Teachers’ comfort with integrating technology increases and they design opportunities for students to use technology for learning. <strong>Attitude and behavior</strong></td>
<td>Students use technology to gather information, construct understanding, demonstrate understanding, and engage more actively in learning. <strong>Behavior and aspiration</strong></td>
<td></td>
</tr>
<tr>
<td>• Time for conferring with coaches</td>
<td>Principals are trained in how to support teachers as they integrate technology into their classrooms and how to serve as a leader for technology in their schools.</td>
<td>In instructional conferences, principals provide support to teachers in integrating technology into their classrooms. <strong>Behavior</strong></td>
<td>Teachers’ attitudes about technology improve. <strong>Attitude</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Student achievement in mathematics increases by 10% by the year 2005.**
**Spelling out KASAB**

**KNOWLEDGE**
Conceptual understanding of information, theories, principles, and research.

**ATTITUDE**
Beliefs about the value of particular information or strategies.

**SKILL**
Strategies and processes to apply knowledge.

**ASPIRATION**
Desires, or internal motivation, to engage in a particular practice.

**BEHAVIOR**
Consistent application of knowledge and skills.

**Intended results:** Desired results of the program expressed as increases in student achievement.

Building on the program’s theory of change, which identifies the program’s key components, the logic model specifies what will change as a result of each program component. Staff development is most successful in increasing student achievement when it targets changes in knowledge, attitude, skill, aspiration, and behavior (see “Spelling out KASAB” at right). For example, if one component of a staff development program is providing coaching to classroom teachers, the initial outcome of this might be that teachers become more motivated to implement the strategies in their classroom (teachers’ aspirations change). An intermediate outcome might be that teachers use the new strategies regularly (a teacher behavior change). The intended outcome is that student achievement increases (student knowledge, skill, and behavior change) as a result of teachers regularly implementing new instructional strategies in their classrooms.

Knowing the precursors to the goal, program developers can monitor for evidence that the precursors are affecting student and teacher learning and adjust the program design to ensure that the precursors occur. Without monitoring, one cannot expect the intended results.

For the evaluator, the precursors, or initial and intermediate outcomes, typically provide benchmarks for collecting evidence in the formative evaluation. To form a reasonable and supportable claim about the link between staff development and student achievement, the evaluator must know whether teachers received coaching, whether that coaching motivated them to implement the strategies, and whether teachers implemented the strategies.

When developing a theory of change and the logic model, program designers specify the types of changes they want to occur. By clearly delineating these changes, designers will be able to design the appropriate actions to accomplish them. Often professional development program planners want teachers to change their behavior, for example, but plan actions that will change only teachers’ knowledge and skills.

**STEP 2: FORMULATE EVALUATION QUESTIONS**

The questions an evaluation attempts to answer shape the evaluation’s design. For example, if a formative evaluation asks whether teachers are integrating new technologies in their classrooms, the evaluation questions might be:

- How frequently do students use technology to demonstrate their understanding of mathematics?
- For what learning tasks do teachers use technology?
- In what other content areas are teachers integrating technology?
- How do students use technology to learn?

The theory of change and the logic model are used to generate formative evaluation questions. Questions can be formulated from each initial and intermediate outcome in the logic model, from each step of the theory of change, from both, or from steps in either that are pivotal to the program’s success. For example, for the theory of change and logic model above, an evaluator may choose not to measure whether teachers and principals learned about the value of technology, but rather to measure whether teachers are integrating technology in their classrooms and whether principals are providing the appropriate level of support to their teachers. An evaluator may assume that, if a teacher is using technology appropriately, teachers know how technology contributes to student learning.

Summative evaluation questions ask whether the program achieved its goals. If the goals are written as student achievement goals, then the evaluation is able to yield evidence about the staff development’s impact on student achievement. If the goals are not expressed as student achievement goals, then the evaluation will allow claims about merit — the degree to which the program achieved its results — but not its impact on student achievement. The summative evaluation question for the goal expressed earlier is: Does student...
achievement in mathematics increase by 10% by 2005 as a result of integrating technology into the classroom?

Evaluators craft questions that allow them to know whether the goal is achieved. To know whether technology integration influenced students’ achievement in mathematics, evaluators first examine the theory of change and logic model to understand how teacher learning influences student achievement and then design formative and summative evaluation questions that allow them to gather the appropriate evidence to make a claim that teacher learning contributes to student learning. Without first answering the formative questions, evaluators will be unable to claim that teachers’ learning contributes to student learning in mathematics.

**STEP 3: CONSTRUCT EVALUATION FRAMEWORK**

The evaluation framework is the plan for the evaluation. Decisions made in this step determine the evidence needed to answer the formative and summative evaluation questions, decide the appropriate sources of that evidence, determine appropriate and feasible data collection methods, the timeline for data collection, person(s) responsible for the data collection, and data analysis method. Knowing what change is expected helps the evaluator determine the best source of evidence and the most appropriate data collection method.

For example, if the evaluator wants to know whether teachers are using technology, teachers themselves are the best source of that information. To triangulate, the evaluator may want to include students, principals, and documents as other data sources to confirm the accuracy of teachers’ judgments. Classroom observations of teachers integrating technology may be the most authentic data collection method for knowing whether teachers are using technology; however, evaluators may select alternative data collection methods that will be less time-consuming or costly. Approximate indicators of teachers’ use of technology might include assignments, student work samples, student surveys about technology use, principals’ observations, and system administrators’ records about student time using particular software programs.

**STEP 4: COLLECT DATA**

The evaluator next prepares for and collects the data. Evaluators will want to pilot newly developed or modified data collection instruments to ensure the instruments’ accuracy and clarity. Data collectors may require training to ensure consistency and data reliability if more than one individual is collecting data. Data collection processes must be refined for accuracy and appropriate protocols for collecting data must be developed that give detailed explanations for how to collect data. Once these responsibilities are met, data are collected. This is relatively routine work for most evaluators, although this step holds the potential for compromising the quality of the evaluation if data are not accurately collected and recorded.

When collecting data, evaluators adhere to standards established by the American Evaluation Association (1995) and the Joint Committee on Standards for Educational Evaluation (1994) on working with human subjects, if applicable. They ensure that they have met all the policy expectations of schools and districts for notification, privacy of records, or other areas, and abide by a code of ethics for evaluators.

Data collection requires a systematic and thoughtful process to ensure that data collected are accurate and have been collected as planned. To ensure accuracy in this step, evaluators often create checks and balances for themselves to ensure that data are recorded accurately, that errors in data entry are found and corrected, and that missing data or outlier data are handled appropriately. Evaluators who attend to details well and who are methodical in their work collect data well.

**STEP 5: ORGANIZE AND ANALYZE DATA**

Evaluators must organize and analyze data collected. Evaluators ensure the data’s accuracy by checking for any abnormalities in the data set and checking that data are recorded appropriately and records are complete. Once evaluators are confident that the data have integrity, they analyze the data. Many practitioners distrust their own ability to do a statistical analysis. But in most cases, simple analyses such as counting totals, finding patterns and trends, or simple calculations such as determining the mean, median, mode, and range are sufficient. Sometimes it may be appropriate to use more sophisticated comparisons that include factoring, assessing covariance, or creating statis-
tical models. When evaluators want this level of analysis, they might want to get help from someone experienced in inferential statistics.

Once data are analyzed, they are displayed in charts, tables, graphs, or other appropriate formats to allow people with different preferences to find the format that works best for them. Careful titling and labeling helps ensure that readers interpret the data accurately.

**STEP 6: INTERPRET DATA**

While data analysis is the process of counting and comparing, interpreting is making sense of what the analysis tells us. “Interpretation is the ‘meaning-making’ process that comes after the data have been counted, sorted, analyzed, and displayed” (Killion, 2002, p. 109). For example, we can tell that the scores went up if we compare scores over three years (analysis). In the interpretation phase, we ask what that means in terms of our work — what contributed to the increase, what does the increase mean, was the increase consistent across all grades, etc.?

Evaluators seek multiple interpretations and talk with stakeholders about which interpretations are most feasible from their perspective. The evaluators then determine which interpretations are most supported by the analyzed data (Killion, 2002). Interpreting data is best done as a collaborative process with program designers and key stakeholders, including participants. In most evaluations of staff development programs, this means that teachers, principals, and central office staff together study the data and form claims about the program’s effectiveness and impact on student learning, and then recommend improvements.

Evaluators form claims about a program’s merit, the degree to which it achieved its goals, its worth, participants’ perception of the program’s value, and the program’s contribution to student learning. Claims of contribution, those stating that the program influenced student achievement, are made when the evaluation design is descriptive or quasi-experimental. Claims of attribution, that staff development and nothing else caused the results, require experimental, randomized design not often used in evaluation studies.

**STEP 7: DISSEMINATE FINDINGS**

After they interpret data, evaluators share their findings. Evaluators must decide what audiences will receive results and the most appropriate formats in which to share those results since different audiences require different formats. Formats for sharing evaluation results include technical reports, brief executive summaries, pamphlets, newsletters, news releases to local media, and oral presentations. Evaluations sometimes fail to have an impact on future programs because results are not widely shared with key stakeholders.

**STEP 8: EVALUATE THE EVALUATION**

Evaluations rarely include this step. Evaluating the evaluation involves reflecting on the evaluation process to assess the evaluator’s work, the resources expended for evaluation, and the overall effectiveness of the evaluation process. Evaluating the process is an opportunity to improve future evaluations and strengthen evaluators’ knowledge and skills. “When evaluators seek to improve their work, increase the use of evaluation within an organization, and build the capacity of others to engage in ‘evaluation think,’ they contribute to a greater purpose. Through their work, they convey the importance of evaluation as a process for improvement and ultimately for increasing the focus on results” (Killion, 2002, p. 124).

**CONCLUSION**

Evaluating staff development requires applying a scientific, systematic process to ensure reliable, valid results. Evaluation not only provides information to determine whether programs are effective, it provides information about how to strengthen a program to increase its effectiveness. With more limited resources available today for professional learning, staff development leaders will face harder decisions about how to use those resources. Evaluations can provide the evidence needed to make these critical decisions.

**REFERENCES**


Keep the whole process in mind

STEPS TO YOUR OWN EVALUATION

BY JOELLEN KILLION, NSDC DIRECTOR OF SPECIAL PROJECTS

START BY ASKING:
• What is the purpose of this evaluation?
• Who are the primary users of the evaluation results?
• What is their intended plan for using the results?

STEP 1: ASSESS EVALUABILITY
1. What are the program’s goals? Are they plausible, student-focused, and results-oriented?
2. What are the program’s objectives?
   • Are they measurable?
   • Do they specify the intended change (knowledge, attitude, skill, aspiration, behavior)?
3. Have the standards for acceptable performance been established for all the targeted participants and clients?
4. What are the assumptions upon which the program is based and that make up the program’s theory of change? Has the theory of change been created?
5. What is its logic model? In other words, what are the inputs, activities, initial outcomes, intermediate outcomes, and intended results of this program? Has the logic model been created?
6. Do the program’s theory of change and logic model make sense?
7. Do key stakeholders understand the program’s theory of change?
8. Is this evaluation worth doing?

STEP 2: FORMULATE EVALUATION QUESTIONS
1. What are the evaluation questions?
   • Program need
   • Program design
   • Program implementation
   • Program impact
   • Multiple use
2. How well do the evaluation questions reflect the interests of the primary users of the evaluation results?
3. How well do the evaluation questions align with the program’s goals and purpose of the evaluation?
4. Are the evaluation questions:
   • Reasonable?
   • Appropriate?
   • Answerable?
   • Specific, regarding measurable or observable dimensions of program success or performance?
   • Specific, regarding the measure of program performance?

STEP 3: CONSTRUCT THE EVALUATION FRAMEWORK
1. Determine evaluator.
   • Who will conduct the evaluation?
     → Internal evaluator
     → External evaluator
     → Combination
   • Does the designated evaluator have the knowledge, skills, and resources to conduct the evaluation?
2. Decide how to answer evaluation question(s).
   • What are the key constructs (terms such as student achievement, improvement, increase, professional development) that will be measured? How have they been defined so that they are clear and specific?
   • Does the evaluation question require making a comparison to determine impact? If so,
what are possible comparison groups? Which is the most appropriate comparison group for this evaluation?

→ Cohort
→ Individual
→ Group
→ Panel
→ Generic

3. Create data plan.
• Who or what is expected to change as a result of this staff development program?
• What types of changes are expected as a result of this staff development program in the identified target audiences or organizational structures?
→ Knowledge
→ Attitudes
→ Skills
→ Aspirations
→ Behavior
• What data can provide evidence that the changes intended have occurred?
• What data collection methodology is most appropriate for the needed data?
• From whom or what will the data be collected?
• What are other possible sources of data to provide evidence of the intended change?
• How essential is it to have multiple data sources for this evaluation?
• When will the data be collected?
• Where will the data be collected?

4. Determine cost.
• Are needed resources including time, fiscal resources, and personnel available to conduct this evaluation?
• If resources are not adequate, what aspects of the evaluation plan can be modified without compromising the integrity of the evaluation?
• If resources are inadequate, how will the evaluation be affected?
• Is the evaluation worth doing?

STEP 4: COLLECT DATA
1. Have the instruments and procedures for data collection been field tested?
2. What revisions are necessary?
3. How will data collectors be trained?
4. After early data collection, do any data seem redundant? What are the advantages and disadvantages of continuing to collect these data? Is it appropriate to continue or to discontinue collecting these data?
5. After early data collection, what data seem to be missing? Is it essential to collect these missing data? How will a new data collection methodology be implemented to collect these data?
6. What processes have been established to manage data collection and transfer?
7. What processes are established to ensure safekeeping and integrity of data?
8. If collecting quantitative data, what kinds of scores are needed to accurately reflect the data and to answer the evaluation questions?

STEP 5: ORGANIZE AND ANALYZE DATA
1. How will data be sorted, grouped, and arranged before analysis?
2. What method of data analysis is needed to answer the evaluation question?
   • Univariate analysis
   • Multivariate analysis
3. How will data be displayed to facilitate interpretation and understanding?
4. How will stakeholders be involved in the data analysis process?

STEP 6: INTERPRET DATA
1. What do these data mean?
2. What findings (interpretations/claims) can be made from these data?
3. How well supported are the findings?

STEP 7: DISSEminate FINDINGS
1. Will the evaluation reports be interim or final evaluation reports?
2. Who are the primary users of the evaluation report?
3. What components do the primary users want included in the evaluation report?
4. What format for reporting the results is most appropriate for the primary users of the evaluation report?
5. What other audiences are likely to want some version of the evaluation report?
6. What format for reporting the results is appropriate for other audiences?

STEP 8: EVALUATE THE EVALUATION
1. How will the effectiveness of the evaluation be assessed?
2. What questions will guide the evaluation of the evaluation?
   • Resources
   • Design
   • Findings
   • Reporting
   • Evaluator
3. What stakeholders will be involved in the evaluation of the evaluation? How will they be involved?
List the planning goals and objectives

SEE STEP 1, PAGES 15-17, 22

<table>
<thead>
<tr>
<th>MEASURABLE OBJECTIVES</th>
<th>Students</th>
<th>Teachers</th>
<th>Principals</th>
<th>Central office</th>
<th>Organization (Policy, practices, structures, systems, etc.)</th>
</tr>
</thead>
</table>

PLANNING GOALS AND OBJECTIVES
Intended results (stated in terms of student achievement):

**LOGIC MODEL PLANNING GUIDE**

Intended results/goals (stated in terms of student achievement):

<table>
<thead>
<tr>
<th>INPUTS</th>
<th>ACTIVITIES</th>
<th>INITIAL OUTCOMES</th>
<th>INTERMEDIATE OUTCOMES</th>
<th>INTENDED RESULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SOURCE:**
**Create an evaluation framework**

SEE STEP 3, PAGES 20, 22-23

**EVALUATION FRAMEWORK**

Program goal:

<table>
<thead>
<tr>
<th>Measurable objectives/changes</th>
<th>Evaluation questions</th>
<th>Data/evidence needed</th>
<th>Data source</th>
<th>Data collection method</th>
<th>Data analysis method</th>
<th>Timeline</th>
<th>Responsible person(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>See pages 17-19</td>
<td>Formative and summative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Evaluation framework** A SAMPLE

<table>
<thead>
<tr>
<th>Evaluation questions</th>
<th>Data/evidence needed</th>
<th>Data source</th>
<th>Data collection method</th>
<th>Data analysis method</th>
<th>Timeline</th>
<th>Responsible person(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>How frequently are teachers integrating technology into their mathematics lessons?</td>
<td>Teacher behavior</td>
<td>Teacher self-report</td>
<td>Survey</td>
<td>Count</td>
<td>Administer survey in May</td>
<td>Technology coordinator</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Principal observations</td>
<td>Logs</td>
<td>Count with description</td>
<td>Principal observations October through May</td>
<td>Principal</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lesson plans</td>
<td>Artifacts</td>
<td>Quality analysis</td>
<td>Collect artifacts in February and May</td>
<td>Technology coordinator</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How do students use technology in mathematics?</th>
<th>Data/evidence needed</th>
<th>Data source</th>
<th>Data collection method</th>
<th>Data analysis method</th>
<th>Timeline</th>
<th>Responsible person(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student behavior</td>
<td>Student self-report</td>
<td>Student self-report</td>
<td>Interviews</td>
<td>Patterns</td>
<td>Conduct student interviews in May</td>
<td>Graduate students</td>
</tr>
<tr>
<td>Classroom assignments</td>
<td>Artifacts</td>
<td>Artifacts</td>
<td>Quality analysis</td>
<td>Quality analysis</td>
<td>Collect artifacts in February and May</td>
<td>Technology coordinator</td>
</tr>
<tr>
<td>Samples of student work</td>
<td>Artifacts</td>
<td>Artifacts</td>
<td>Quality analysis</td>
<td>Quality analysis</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Is student achievement in mathematics increasing as expected? (10% on state tests by 2005)</th>
<th>Data/evidence needed</th>
<th>Data source</th>
<th>Data collection method</th>
<th>Data analysis method</th>
<th>Timeline</th>
<th>Responsible person(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student knowledge and skills</td>
<td>State test</td>
<td>Artifacts</td>
<td>Comparing</td>
<td>April</td>
<td>District testing coordinator</td>
<td></td>
</tr>
<tr>
<td>Classroom tests</td>
<td>Artifacts</td>
<td>Comparing</td>
<td>October-June</td>
<td>Teachers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student grades</td>
<td>Artifacts</td>
<td>Comparing</td>
<td>June</td>
<td>Technology coordinator</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SOURCE:**
Apply knowledge of learning

NSDC’s learning standard reminds us to apply our knowledge of human learning and change when we plan or facilitate professional learning. This standard encourages teacher leaders or coaches to know about and apply their knowledge of how adults learn and how change impacts them.

What is learning?
Learning is a process of change. Learning can be accidental, unanticipated, and unplanned. Another term used to describe this kind of learning is informal learning. For example, I had an unexpected learning moment after a rather casual conversation over lunch where my guest expressed a point of view very different from my own. I listened carefully, probed her thinking, and shared my own views. I left the conversation with a different perspective.

Sometimes learning is planned and purposeful. This occurs when the learner intentionally engages in an experience in which some change is the expected outcome. That outcome is frequently a change in a KASAB. A term used to describe this form of learning is formal learning. For example, I clearly recall the series of workshops I attended to learn coaching skills.

How we define learning depends on the outcome of the learning process. The KASAB model provides a useful framework for thinking about different kinds of learning. This model identifies five different kinds of changes that occur as a result of learning or some intervention. (See chart on p. 8.)

Sadly, much of the professional development teachers have experienced focuses on transferring knowledge and developing skills. Informational or demonstrative learning focuses on the facts, principles, or concepts. It is what a learner knows about. Operational or procedural learning focuses on the learner’s know-how, the capacity to do.

However, deep learning, often called transformational learning, occurs at the level of beliefs, values, and motivation rather than only at the level of knowledge and skills. Transformational learning is long-term and results in behavioral changes. Transformational learning is deep change that occurs at the core of the learner. Learning at this level promotes a change in practice.

How we learn
Cognitive psychologists for decades have been exploring how learning occurs. From the work of Vygotsky, Piaget, Kolb, Luria, Freire, Knowles, Kegan, and others, we have learned that there are processes that support learning, yet not all adults or students learn in the same way. Some are whole-to-part learners and others are part-to-whole learners. Some learn best by jumping in and experimenting through a hands-on approach; others learn best by hearing about or observing. Some want theory and research; others want practical. Some want time to think about, process, draw pictures of, or reconstruct what they learn; others seem to just get it.

Multiple factors affect how we learn as adults. Our need to learn is one. When adults express a desire or understand the reason for learning, they are more open to learning. Sometimes when learners perceive that they have little choice in learning or when the learning doesn’t appear relevant to their particular situa-
tion, they seem less willing to engage in the learning process.

Another factor that affects how we learn is our sense of efficacy. Efficacy is our confidence that we know how to teach and that we make a difference. A high level of efficacy often means that learners are more confident that what they are learning will strengthen their practice and give them more options. A low level of efficacy often means that a learner is less confident and less willing to examine his or her practice and consider alternative approaches. A learner with low efficacy often looks outside of himself or herself for the reason for problems rather than considering what he or she can do to address the problem.

Certainly other factors affect how people learn. Time, resources, expectations, and the culture in which the learning occurs influence learning. One other important consideration is how learners experience learning.

**How do learners experience learning?**

Learning is a process of change. When individuals engage in either informal or formal learning, they respond in different ways. In landmark research in the 1970s and ’80s, a team of researchers at the Southwest Educational Development Laboratory studied how teachers experienced the implementation of new science curriculum. Led by Bill Rutherford, Gene Hall, Shirley Hord, and Susan Loucks-Horsley, the development of the Concerns-Based Adoption Model (CBAM) (see Hall & Hord, 2000) provided educational leaders with a practical theory to guide the implementation of change efforts in education.

The research has four key components. The first is Stages of Concern. (See chart on p. 9.)

<table>
<thead>
<tr>
<th>TYPE OF CHANGE</th>
<th>DEFINITION</th>
<th>TEACHER EXAMPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td>Conceptual understanding of information, theories, principles, and research.</td>
<td>Teachers understand mathematical concepts they teach.</td>
</tr>
<tr>
<td>Attitude</td>
<td>Beliefs about the value of particular information or strategies.</td>
<td>Teachers believe students’ competence in mathematics is important to their success, both within and beyond school.</td>
</tr>
<tr>
<td>Skill</td>
<td>The ability to use strategies and processes to apply knowledge.</td>
<td>Teachers know how to employ a variety of instructional strategies to help students visualize mathematical concepts.</td>
</tr>
<tr>
<td>Aspiration</td>
<td>Desires, or internal motivation, to engage in a particular practice.</td>
<td>Teachers want their students to understand and perform well in mathematics.</td>
</tr>
<tr>
<td>Behavior</td>
<td>Consistent application of knowledge and skills.</td>
<td>Teachers consistently employ inquiry-based instructional practices in mathematics to help students acquire a deep understanding of math concepts.</td>
</tr>
</tbody>
</table>


Other key components include Levels of Use, Innovation Configuration Maps, and change facilitators. Of particular interest to coaches is Stages of Concern. Stages of Concern identifies seven stages of responses learners have in a change initiative. Knowing a learner’s stage of concern helps the change facilitator identify the most appropriate intervention or action to support the learner. For example, if a learner expresses a management concern, indicating that he or she doesn’t know how to find the necessary resources to implement the new instructional processes, a coach can zero in on this need and address the concern with the hope of removing barriers to implementation.

Change challenges everyone. Any form of professional development requires change.
Transformational learning, change that occurs at the level of beliefs, aspirations, and behaviors, reconfigures how learners think and act. When teacher leaders and coaches clarify the types of change they expect and teachers want as a result of professional learning, use their knowledge of how various factors influence learning, and are skillful in responding to learners as they experience change, they will be more prepared to lead learning within their schools and districts.

**Reference**

### STAGES OF CONCERN

<table>
<thead>
<tr>
<th>STAGES OF CONCERN</th>
<th>TYPICAL EXPRESSIONS OF CONCERN</th>
<th>TYPICAL COACH RESPONSE/INTERVENTION</th>
</tr>
</thead>
</table>
| 6. Refocusing     | “Perhaps if we thought about integrating this with our social studies program, we could accomplish more.” | • As we think about how to adapt what we are learning, how do we ensure that we incorporate the essential features of these instructional strategies and not lose the essence?  
• Let’s take some time to plan how we might do that. |
| 5. Collaboration  | “How can I learn about what others are doing?” | • In our next team meeting, let’s take some time to hear how others are doing with implementing these strategies and how their students are doing.  
• I will be happy to take your class while you observe your colleagues to see how it is going in their classes. |
| 4. Consequence    | “How will this affect my classroom practice and my students?” | • If you implement these new strategies, how do you anticipate your students will respond?  
• I am willing, if it is helpful, to observe several students in your class when you teach these strategies to watch how they respond. This might help you understand more thoroughly how these strategies support student learning. |
| 3. Management     | “Where will I find the time to do this?” | • I am glad to help you make sense of this. When can we meet to discuss your questions?  
• I wonder if we could discuss this with other teachers who are asking the same questions you are?  
• Here are some strategies others have used. |
| 2. Personal       | “Wait! How can I possibly think about something new?” | • I understand your concern about how this will affect you. I wonder if you want to know what others have said about how it has impacted them.  
• Tell me how you think this will impact you. What are you anticipating?  
• What relationship do you see between this and your professional goals? |
| 1. Information    | “I’d like to know more about what that is.” | • What do you want to know?  
• How can I help you with this?  
• Here are some resources to give you more information.  
• Please check the web site. |
| 0. Awareness       | “I heard about that.” | • What have you heard?  
• What are you interested in knowing?  
• I can provide more information if you’d like or share some resources that would help you know more. |

Transformational learning, change that occurs at the level of beliefs, aspirations, and behaviors, reconfigures how learners think and act. When teacher leaders and coaches clarify the types of change they expect and teachers want as a result of professional learning, use their knowledge of how various factors influence learning, and are skillful in responding to learners as they experience change, they will be more prepared to lead learning within their schools and districts.

**Reference**
Evaluation of professional learning can be made more concrete by identifying the specific learning outcomes you expect of educators. Adult learning outcomes can be organized into five different categories. The first letters of the names of these categories spell K A S A B.

- **Knowledge**: Conceptual understanding of information, theories, principles, and research
- **Attitude**: Beliefs about the value of particular information or strategies
- **Skills**: Strategies and processes to apply knowledge
- **Aspirations**: Desires or internal motivation to engage in a particular practice
- **Behavior**: Consistent application of knowledge and skills


An evaluation plan involves determining these learning outcomes as well as the evidence to collect to determine whether these results have been accomplished. A school team project focused on learning how to plan, conduct, and evaluate professional learning might have the following KASAB.

**Sample KASAB: School Team-based Professional Learning Project**

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Attitude</th>
<th>Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Know…</em></td>
<td><em>Believes that…</em></td>
<td><em>Can…</em></td>
</tr>
<tr>
<td>Learning Forward’s professional learning standards</td>
<td>Professional learning should impact adult learners’ knowledge and skills</td>
<td>Plan long-term, sustained professional learning</td>
</tr>
<tr>
<td>Data analysis protocols to determine student learning needs</td>
<td>Professional learning should improve student learning outcomes</td>
<td>Facilitate faculty discussions to plan schoolwide professional learning</td>
</tr>
<tr>
<td>Data analysis protocols to determine adult learning needs</td>
<td>Job-embedded, collaborative designs are a more powerful form of professional learning</td>
<td>Plan the appropriate use of job-embedded professional learning designs</td>
</tr>
<tr>
<td>A variety of job-embedded professional learning models</td>
<td></td>
<td>Evaluate professional learning in terms of teacher classroom behaviors and student outcomes</td>
</tr>
<tr>
<td>The components of the professional learning evaluation plan</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

...and so on.
A second KASAB example delineates the learning outcomes for educators within the special education arena based on IDEA legislation.

Sample KASAB: *IDEA Legislation*

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Has knowledge of…</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Requirements and constraints of IDEA legislation</td>
</tr>
<tr>
<td></td>
<td>• Special education needs and range of severity</td>
</tr>
<tr>
<td></td>
<td>• Best practices for intervention and instruction of special education students</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Attitudes</th>
<th>Believes that…</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• The correct intervention and instruction leads to gains in student achievement</td>
</tr>
<tr>
<td></td>
<td>• Instruction can make a difference for special education students’ learning</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Skills</th>
<th>Knows how to…</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Apply best practices to any given special education situation</td>
</tr>
<tr>
<td></td>
<td>• Implement and interpret IEPs</td>
</tr>
<tr>
<td></td>
<td>• Work with parents, counselors, and administrators to produce an appropriate IEP for each student</td>
</tr>
<tr>
<td></td>
<td>• Consult and collaborate with regular education teachers</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Aspirations</th>
<th>Is motivated to…</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Help each special education student achieve at the highest possible level</td>
</tr>
<tr>
<td></td>
<td>• Make the learning environment and experience positive, encouraging, and productive</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Behaviors</th>
<th>Consistently applies, uses…</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Knowledge and skills to meet the needs of each student so as to have him or her achieve at the highest possible level</td>
</tr>
<tr>
<td></td>
<td>• Monitoring of the IEP against student progress to maximize the experience and achievement of each student</td>
</tr>
<tr>
<td></td>
<td>• Partnerships with regular education teachers to mainstream special needs students</td>
</tr>
<tr>
<td></td>
<td>• Collaboration with parents to create partnerships focused on student learning and advancement</td>
</tr>
</tbody>
</table>
Use these examples to build your own KASAB for schoolwide, team-based, or individual professional learning plans. Begin with a clear learning outcome and delineate knowledge, attitudes, skills, aspirations, and behaviors for that outcome.
STANDARDS ASSESSMENT INVENTORY

Recommendations: Data Standard

Tools to support STRENGTHENING strategies
Change is a highly personal experience. Everyone participating in the effort has different reactions to change, different concerns, and different motivations for being involved. The results of change are long-term, but the change process is incremental and continuous. It is a series of destinations that lead to further destinations. The smart change leader sets benchmarks along the way so there are guideposts and pause points instead of an endless change process. "Early wins" — a term used to describe successes demonstrating concretely that achieving the change goals is feasible and will result in benefits for those involved — help accomplish this.

To bring people along, the leadership team needs to give those involved evidence at each stage that the change will succeed and that is likely to yield positive results. That is especially true at the beginning, when skepticism about benefits and possible costs is often highest. An effective leadership team deliberately plans for small, early wins. These should be planned actions within the overall change strategy the leadership team is trying to achieve.

The leadership team should plan to achieve and document important results that are evident within the first few weeks. Of course, all involved must agree that achieving this “win” would result in something positive — that is, meeting a common definition of success — and further the overall change strategy. One benefit educators have is the immediacy of feedback from students or professional development participants. It is pretty obvious when the early win has hit its mark.

By doing so, the
leadership team will inspire confidence that the rest of the initiative can be accomplished. However, it is critically important that, once the early win is selected and announced, the promised results are achieved by the stated deadline. To do anything less would risk deflating confidence in the initiative’s feasibility, which is the opposite of what the leadership team is trying to do.

HOW IT WORKS

Let’s say that the school’s goal is to improve student achievement or close the achievement gap. It is a recipe for failure to proclaim that goal in September and say that the “win” will be whether test results in June show that success. Yet that is often what happens.

The concept of early wins requires setting the objective of improving student achievement — such as in mathematics as measured by results on the June test increasing a specified amount. However, it is critical to plan backward from that June test. What steps can be taken along the way to ensure that the desired results will be accomplished by June? What can be done within the first two to three weeks to produce something tangible and symbolic that all will agree is an important step in the right direction? This will give the confidence and momentum to go forward and also give the change leader something important on which to build.

This process involves several steps:
1. Identify the problem and define the objectives to address it.
2. Design the overall strategy to achieve the objectives.
3. Develop actions (activities) under the strategy.
4. Plan, implement, and publicize the early win.

OBJECTIVES, STRATEGY, AND ACTIONS

In the example cited above, the problem is that the school is underperforming in mathematics. The objective is to improve student achievement in mathematics as measured by this year’s June test scores compared with those of last June. The objective should be as specific as possible, stating
which grade and the expected amount of increase in scores.

Numerous overall strategies can guide activity development. Change leaders might use the high-leverage leadership strategy of developing a professional learning community for school personnel (Louis, Leithwood, Wahlstrom, & Anderson, 2010; Knapp, Copeland, Honig, Plecki, & Portin, 2010). With this strategy, participants can try new content and pedagogies to learn together how to improve mathematics instruction for students, which should lead to improved mathematics test scores.

There are several actions the leadership team might consider to promote professional learning. For example:

1. Find out which values are most prevalent among school personnel and therefore will be useful in planning further action steps for professional development.
2. Introduce data-based planning committees, where teams use data to identify the areas of greatest concern. Based on the results, develop action plans to address those areas.
3. Promote classroom visitations among teachers so they can learn from each other’s mathematics lessons.
4. Use technology to differentiate instruction in mathematics.

Once the leadership team has determined what is to be accomplished and how, the next critical step is to determine the best way to start or the early win, which needs to have the following characteristics.

ESSENTIAL CHARACTERISTICS OF EARLY WINS

Regardless which win the leadership team chooses, it must be:

- Tangible and observable;
- Achievable;
- Perceived by most people as having more benefits than costs;
- Nonthreatening to those who oppose the strategy;
- Symbolic of a desired shared value;
- Publicized and celebrated; and
- Used to build momentum.

**Tangible and observable**

The early win must be obvious to see; a real result that can be put on paper or made real in ways that everyone can observe. Using data is important. The leadership team must define specifically what the result will be (a product or a measurable change from x to y). This will be the proof the leadership team will present at the deadline to demonstrate that the win has been accomplished.

**Achievable**

Above all, the leadership team must be absolutely certain it can accomplish the win. Failure to do so will do great damage to the cause. Failure will prove that this change is not feasible, so there is quite a lot riding on accomplishing the win by the established deadline.

**Because those who support the strategy are already on board, the audience for the early win is those who might oppose the change or stand to lose something important to them as a result of the change. The leadership team will know who these groups are from the stakeholder analysis and the resistance analysis.**

**Perceived by most people as having more benefits than costs**

The early win should further these gains so that participants can see how it will benefit them. In general, an education or training program is usually perceived as a benefit as long as it matches the readiness of participants. This means the program gives them skills or knowledge that they perceive they need and is not being imposed on those who believe they already have the skills or don’t need them.

**Nonthreatening to those who oppose the strategy**

Because those who support the strategy are already on board, the audience for the early win is those who might oppose the change or stand to lose something important to them as a result of the change. The leadership team will know who these groups are from the stakeholder analysis and the resistance analysis.

This will enable the leadership team to develop and implement an early win that will bring those who are resistant on board or at least signal to them that they should not be threatened by the change strategy. Another strategy is to develop an early win in an area that is the least threat to anyone.

**Symbolic of a desired shared value**

The early win is only of use if — after all these other considerations — it is perceived as important within the context of the organizational culture. It must be a symbol that says that important organizational values are being furthered by this win and therefore by the larger change strategy.

**Publicized and celebrated**

Once the early win is accomplished, the leadership team makes sure everyone knows about it, or it will be of limited use for the change strategy. The leadership team can arrange a celebration of this destination before taking on the next, larger activity.

**Used to build momentum**

As important as it is to have an early win, this technique only works once or twice. After the leadership team has established the momentum that an early win provides, it needs to
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*See education.ti.com/research.
### EARLY WIN WONDER TOOL

Overall change strategy:  

Early win action under consideration:  

<table>
<thead>
<tr>
<th>DOES THE PROPOSED ACTION MEET ALL ESSENTIAL CHARACTERISTICS OF AN EFFECTIVE EARLY WIN?</th>
<th>EVIDENCE (HOW?)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Importance:</strong> Accomplishing this will meet the common understanding of what constitutes success.</td>
<td></td>
</tr>
<tr>
<td><strong>Importance:</strong> It is not merely nice to do, but necessary to move the work forward; the action is considered an urgent priority by most.</td>
<td></td>
</tr>
<tr>
<td><strong>Tangible and observable:</strong> There is a transparent, observable outcome, either a specific work product or improvement measured by data.</td>
<td></td>
</tr>
<tr>
<td><strong>Achievable:</strong> You are certain the change can be accomplished within the stated time frame.</td>
<td></td>
</tr>
<tr>
<td><strong>Perceived as having more benefits than costs to most people:</strong> Individuals who will be implementing the action perceive benefits to achieving this early win — even if those benefits are not those that the leader articulates.</td>
<td></td>
</tr>
<tr>
<td><strong>Helps those affected deal with loss:</strong> The action creates a positive substitute for what people perceive might be lost through the change strategy.</td>
<td></td>
</tr>
<tr>
<td><strong>Nonthreatening to opposing groups:</strong> Groups that oppose the change would perceive benefits if this objective were accomplished.</td>
<td></td>
</tr>
<tr>
<td><strong>An area of relatively less interest:</strong> The change is in an area that excites relatively fewer passions by important stakeholder groups.</td>
<td></td>
</tr>
<tr>
<td><strong>Symbolic of shared values:</strong> The program is an important symbol in the culture.</td>
<td></td>
</tr>
<tr>
<td><strong>Plans to publicize:</strong> There are mechanisms to communicate the win broadly at the beginning and again at the deadline.</td>
<td></td>
</tr>
</tbody>
</table>

EXAMPLE OF A COMPLETED EARLY WIN WONDER TOOL

Overall change strategy: Develop a professional learning community to improve mathematics instruction.

Early win action under consideration: Perform the values clarification exercise at the next faculty conference.

<table>
<thead>
<tr>
<th>DOES THE PROPOSED ACTION MEET ALL ESSENTIAL CHARACTERISTICS OF AN EFFECTIVE EARLY WIN?</th>
<th>EVIDENCE (HOW?)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Importance:</strong> Accomplishing this will meet the common understanding of what constitutes success.</td>
<td>We would consider it a success to get to know each other better. It would also be a plus to have an experience where we could learn more about ourselves.</td>
</tr>
<tr>
<td><strong>Importance:</strong> It is not merely nice to do, but necessary to move the work forward; the action is considered an urgent priority by most.</td>
<td>We need to “walk the talk” about being a learning organization; that starts with knowing what we really value.</td>
</tr>
<tr>
<td><strong>Tangible and observable:</strong> There is a transparent, observable outcome, either a specific work product or improvement measured by data.</td>
<td>There will be a spreadsheet of data with the frequency with which each value was cited as important by our school.</td>
</tr>
<tr>
<td><strong>Achievable:</strong> You are certain the change can be accomplished within the stated time frame.</td>
<td>This is a proven exercise that can be done in an hour. Results can be tabulated and distributed within a day.</td>
</tr>
<tr>
<td><strong>Perceived as having more benefits than costs to most people:</strong> Individuals who will be implementing the action perceive benefits to achieving this early win — even if those benefits are not those that the leader articulates.</td>
<td>There is something of value here for everyone since they will be reflecting on their own values.</td>
</tr>
<tr>
<td><strong>Helps those affected deal with loss:</strong> The action creates a positive substitute for what people perceive might be lost through the change strategy.</td>
<td>Doing this exercise demonstrates to everyone that whatever comes next will not upset the most important values.</td>
</tr>
<tr>
<td><strong>Nonthreatening to opposing groups:</strong> Groups that oppose the change would perceive benefits if this objective were accomplished.</td>
<td>Everyone appreciates being asked about his or her values and having his or her voice be heard.</td>
</tr>
<tr>
<td><strong>An area of relatively less interest:</strong> The change is in an area that excites relatively fewer passions by important stakeholder groups.</td>
<td>No group objects to finding out more about the values of its members. This information is useful to all as a basis for planning further steps.</td>
</tr>
<tr>
<td><strong>Symbolic of shared values:</strong> The program is an important symbol in the culture.</td>
<td>We are finding out about our shared values, and doing this exercise shows how important it is to further those in our school.</td>
</tr>
<tr>
<td><strong>Plans to publicize:</strong> There are mechanisms to communicate the win broadly at the beginning and again at the deadline.</td>
<td>We will publicize the compiled results the next day to the school community and plan our next actions for professional learning on the basis of furthering our shared values.</td>
</tr>
</tbody>
</table>

capitalizing on that momentum, using the newfound credibility to develop the next, larger change strategy and reach for the larger win.

**POTENTIAL EARLY WINS**

The three possible actions listed here could have early wins associated with each as a first step. It is unlikely that everyone will see the merit in any one strategy, so starting small and tangibly is the way to go. For example:

1. To get data on school values, the leadership team might conduct a values clarification exercise at the next faculty conference. Such an exercise would have the double benefit of assisting each participant to reflect on what is meaningful to him or her as well as synthesizing the results to gain a perspective on values schoolwide.

2. To promote data-based planning committees, the leadership team might start with the grade that is most ready and have those teachers share their results with the rest of the school community within a specified period of time.

3. To promote classroom visitations among teachers, the leadership team might start with one or two pairs of teachers who are interested and have them report to the larger school community on what they learn in those visits.

The Early Win Wonder tool on p. 14 is devised to help leadership teams develop early wins and decide which to choose. Each early win can be subjected to the analysis of the tool. A completed version of the tool appears on p. 15. Self-reflection questions at right prepare the leader to use the tool.

**USING THE TOOL**

In using the Early Win Wonder tool to analyze these three potential early wins, the values clarification exercise at the faculty meeting emerges as the best choice for this example. Until the leadership team knows which values are most highly felt by everyone, it isn’t possible to guarantee the success of the other proposed early wins. The other two proposed wins are less likely to produce success because they rely on the cooperation of “ready” teachers and on the acceptance of their positive experience by less-ready folks.

The early win provides the momentum to develop professional learning based on the shared values. For this example, professional learning activities could be differentiated so that those who value learning via data could participate in data-inquiry groups and those who value collaborative learning could participate in classroom visitation.

It doesn’t take long to achieve early wins, allowing the leadership team to move quickly toward other, larger actions to achieve its objective.

**REFERENCES**


Jody Spiro (jodspi@juno.com) is the author of Leading Change Step-by-Step: Tactics, Tools, and Tales (Jossey-Bass, 2011). She is also director of education leadership at The Wallace Foundation and adjunct professor of public administration at the Robert F. Wagner Graduate School of Public Service at New York University.
Forsyth County Schools has recently finished a very successful year. In 2008, all 16 elementary schools and eight middle schools made Adequate Yearly Progress. Despite the fact that Georgia administered new, more rigorous math assessments for grades 3-5 and grade 8, the district had an average of 22% more students passing the assessments than the state average. To what does this district attribute its success? Leaders and teachers believe that a new, intense focus on benchmark assessments combined with focused, collegial conversations contributed to this impressive growth.

Forsyth County Schools, located 35 miles north of Atlanta, has designed a balanced assessment program that emphasizes classroom assessment and organizes data and resources to foster collegial conversations focused on standards and learning. The district’s focus on assessment began five years ago through a professional learning program called Focused Choice offering all staff in the 32,000-student district six early release days and two full staff development days for learning content that supports standards-based classrooms. One of the learning opportunities, Assessment FOR Learning (Stiggins & Chappuis, 2006), was designed to emphasize formative over summative assessment to provide timely and effective feedback to students (Marzano, 2003) and inform classroom practice. The professional learning not only transformed classroom practice, but also drove the district to make significant changes in how school leaders and teachers used assessment data.

For this district, balanced assessment does not mean that summative and formative measures are weighted equally. Forsyth County Schools creates a system that gives formative,
### Five assessment measures

<table>
<thead>
<tr>
<th>Standardized assessment</th>
<th>Benchmark assessment</th>
<th>Common assessment</th>
<th>Classroom assessment</th>
<th>Progress monitoring</th>
</tr>
</thead>
<tbody>
<tr>
<td>PURPOSE: A standardized test is designed to measure the amount of knowledge and skill a student has acquired and produces a statistical profile used as a measurement to evaluate student performance in comparison with a standard or norm.</td>
<td>PURPOSE: A benchmark assessment is designed as a measurement of group performance against an established set of standards at defined points along the path toward standard attainment, typically administered every nine weeks.</td>
<td>PURPOSE: A common assessment is collaboratively developed by grade-level teams or departments as a measurement of group or individual performance against an established set of standards.</td>
<td>PURPOSE: Classroom assessment refers to all assessment activities undertaken by teachers, and by the students themselves, which provide information to be used as feedback to modify the teaching and learning activities in which they are engaged.</td>
<td>PURPOSE: Progress monitoring is a scientifically based practice that is used to monitor academic growth of an individual student or an entire class based on predetermined learning goals. The effectiveness of instruction and intervention is also evaluated.</td>
</tr>
<tr>
<td>DESIGNED BY: Georgia Department of Education and national assessment vendors.</td>
<td>DESIGNED BY: Forsyth County Schools and state and national item banks.</td>
<td>DESIGNED BY: Collaborative teacher teams/departments.</td>
<td>DESIGNED BY: Classroom teachers.</td>
<td>DESIGNED BY: Classroom teachers and national assessment vendors.</td>
</tr>
<tr>
<td>INSTRUCTIONAL DATA: Standardized tests can provide information on individual or group performance to help educators identify instructional needs, measure growth over time, evaluate effectiveness of programs, and monitor schools for educational accountability. Standardized tests are used at the national, state, system, school, and classroom level.</td>
<td>INSTRUCTIONAL DATA: Benchmark assessment results can be used to determine student growth and student performance relative to grade-level and/or course achievement expectations. Results can guide classroom instruction and identify individual student needs for reteaching, intervention, and/or acceleration. In addition, benchmark assessments provide periodic evaluation of program effectiveness and guide professional development efforts. Benchmark assessments are used at the system, school, and classroom level.</td>
<td>INSTRUCTIONAL DATA: Common assessments can provide teacher teams with data to determine student performance relative to learning goals identified in a unit of study. Results can be analyzed to guide classroom instruction and identify individual student needs for reteaching, intervention, and/or acceleration. Shared results foster collaboration to improve instruction and embedded professional learning. Common assessments are used at the school and classroom level.</td>
<td>INSTRUCTIONAL DATA: Formative assessment evidence is diagnostic and used to adapt the teaching to meet the needs of students. Results can be used to guide instruction and identify individual student needs for reteaching, intervention and/or acceleration. Students and teachers can use self-assessment to determine levels of achievement, set goals, and identify strategies to meet those goals. Classroom assessments are used at the classroom and student level.</td>
<td>INSTRUCTIONAL DATA: Progress monitoring data demonstrates a student’s progression of achievement and informs how instructional techniques need to be adjusted to meet the individual student’s learning needs. Results can guide decisions on reteaching, intervention, and/or acceleration. Progress monitoring tools are used at the school, classroom, and student level.</td>
</tr>
</tbody>
</table>

classroom assessment much more weight than standardized assessments. The chart above reflects five different assessment components in the district’s balanced assessment program. Standardized tests are just one component; the other four are classroom assessment measures designed to give formative data on student progress against standards.

**THE POWER OF BENCHMARKING**

Benchmark assessments are one of the most recent additions to the assessment program. The district recognized that teacher leaders should
develop benchmark assessments for reading/English language arts and mathematics using consistent standards-based pacing guides. The district provided teachers guidance and instruction on how to choose aligned to standards. Teachers became quality assessors through this process by considering item attributes such as Lexile range for reading passages and Bloom’s Taxonomy level when critically choosing items to include on each assessment. With all classrooms in grades 3-8 using the assessments three times a year, the data have fostered rich dialogue not only within buildings among teams, but across the district. However, collegial conversations around using assessment evidence do not come naturally. School leaders need well-designed professional learning and relevant, timely data to frame the dialogue to transform classroom practice.

The district created school teams that included an administrator, teacher leaders, and the instructional technology specialist to engage in ongoing learning on using data reports and leading meaningful conversations. The professional learning design included training on how to access different types of reports providing student, classroom, and test item detail through Edusoft, Riverside’s assessment management system. The district also published districtwide and school-level reports to highlight the standards across the district that posed the greatest challenge to students. The use of Edusoft to support formative assessment has provided classroom teachers the ability to create performance-based assessments, align assessments to standards, scan answer documents, and review results in a matter of minutes. The district leverages Edusoft for benchmark assessments as well to provide teachers with timely, meaningful reports.

Once teams were adept at accessing the data, the learning moved toward facilitating the conversations. The district modeled facilitation of collegial conversations for school team members at each session and provided sample questions, organizers, and reflection tools so that each team could design conversations that worked for their staff. School and district leaders engaged the staff in three levels of reflection and dialogue to develop a rich understanding of what the data were telling them about instructional practice and student performance.

LEVEL 1

The first level was individual teacher reflection. Teachers used their class reports and item analysis to reflect on the following standards-based questions:

• Which items did students miss most frequently?
• What standard was each item aligned to?
• What was the school performance compared to your class performance on that item?
• Why do you think most of your students chose the responses they chose?

LEVEL 2

The second level of reflection and dialogue was grade-level/content-team conversation. With individual reflections in hand, teachers participated in a grade-level/content-team meeting to determine overall strengths and challenges, discussing the following questions:

• What were our grade-level/content-team strengths based on the results?
• What were our team challenges based on the results?
• What factors in our curriculum and instruction do we feel influenced these results?
• How can we collaborate to reteach standards that are hardest to learn?
• How will we know if our students have mastered the standard?
• What remediation and intervention will be most effective for individual students with low performance?
• Is there additional professional...
learning support that we need as a team to help us achieve our goals for student learning?

The purpose of the grade-level/content-team sessions is to identify standards that were most problematic and determine how the team can collaborate to reteach and reassess. The conversations in these sessions lead teachers to better understand the standards, brainstorm ideas for modifying instruction, and collaborate on a plan of action for remediation and intervention before the next assessment (Schmoker, 1999). The team sessions continued the learning of the individual teacher reflections. Teachers analyzed their results even more intensely and took actions they may not have otherwise considered in isolation.

**LEVEL 3**

The third level of reflection and dialogue was *schoolwide dialogue about the results*. Building leaders facilitated conversations about the benchmark assessments and how the results of these assessments, along with other assessment data, could influence the school improvement process.

The benchmark assessments were incorporated into all school improvement plans as evidence of student learning to be monitored throughout the year. The data from the benchmarks allowed leaders to ask the following questions of their teaching and support staff:

- Do the results show we are making progress toward meeting our school improvement goals?
- Of the reading/English language arts and math target areas we identified for improvement this year, how did we perform?
- How did our subgroups and at-risk students perform?
- Are there strategies and actions in our school improvement plan that need to be modified based on these results?
- Are the remediation and interventions offered to our students adequate for closing the achievement gap?
- Do we need to modify our professional learning plan to provide additional support?
- What resources do you need to accomplish the curriculum and instructional changes you have identified?

This schoolwide dialogue enables school leadership to monitor the curriculum and instruction in the building as well as progress toward school improvement goals (Reeves, 2006).

The benchmark assessments have been a critical element of how Forsyth County Schools uses formative assessment data to impact classroom practice. The district’s belief in the power of formative assessment (Black & Wiliam, 1998) has guided the work of teachers as they review student work on a monthly, weekly, and daily basis through observations, portfolios, and conversations to make real-time decisions about instruction.

Additionally, the benchmark assessments have enabled school and district leadership to monitor student progress toward standards using a guaranteed and viable curriculum (Marzano, 2003), and lead conversations that help triangulate all assessment components to provide timely feedback, remediation, and intervention.

Through implementation of the benchmark assessments as part of the balanced assessment program, the district has learned the following lessons:

- Teacher leaders must be involved in every facet of the project from developing pacing guides, to aligning assessment items, to organizing results.
- Purposeful professional learning opportunities must be designed to scaffold staff learning at all levels of the organization.
- District and school leaders must acknowledge that changes in curriculum and assessment to influence instruction can be uncomfortable for staff and must make modifications along the way to accommodate readiness levels.

Based on the results for students, the district plans to expand the use of the Edusoft assessment management system in 2008-09 to the high school level to support classroom assessment and benchmark assessments in high-stakes courses. Leaders and teachers in Forsyth County Schools believe benchmark assessments played a big role in the growth the district experienced after only one year. They have learned this lesson well: Never underestimate the power of timely, standards-based data and focused, collegial conversations led by knowledgeable leadership to impact changes in professional practice and, ultimately, improvements in student achievement.

**REFERENCES:**


By Joan Richardson

The vision statement has been finalized. The banners have been hung and T-shirts have been ordered. The school newsletter has been revised to prominently include the vision statement.

Now, what?

Publishing and publicizing a school’s newly developed vision statement is an important way to communicate with the school’s stakeholders. But it is only the beginning of the real work of using the vision as a guide and a measure for school improvement.

“The vision has to be tied to regular dialogue and review and mechanisms that make it live and breathe. Without that, it will never become viable,” says Suzanne Bailey, who consults frequently on restructuring issues, including vision development and implementation.

Working to achieve the vision begins immediately after an organization has identified its goals. That means schools can’t wait a year or, worse, five years, to determine whether they’re achieving what they want.

“If you’re the leader, build in mechanisms to evaluate your progress at the moment that you write the vision,” she says.

That’s especially the case with schools that are struggling, Bailey says. “With low-performing schools, it’s unreal to pretend that you’re going to aim at something that’s farther away than today’s lunch. It’s disrespectful. Look at what you’re doing today,” she urges.

DATA COLLECTION

Collecting data underlies all of the work to measure progress against the vision, agree Bailey and David Conley who also has done extensive work on school restructuring.

As soon the vision statement has been written, Conley urges schools to collect baseline data to assess the current reality at the school. “It’s hard to argue with your own data,” he says.

Data that is typically collected includes standardized test scores, daily student attendance, number of dropouts, demographic information about students and their families, parent attendance at parent-teacher conferences, disciplinary information, courses in which students are enrolled, and post-graduate plans for students.

Bailey cautions that data doesn’t have to mean just test scores and other numerical measures. “If your data set is only test scores, you’re doomed,” she said.

Continued on Page 2
Achieving your vision depends on follow-through

Continued from Page One

Teachers should also think about collecting classroom-based data, such as checklists of various types of activities and samples of assignments and student work.

She urges schools to write stories to describe what is happening today in their schools. For example, each teacher could write about the day in the life of a single student in his or her class. That same activity could be done at regular intervals through the year or over several years. Teachers could read those stories and “see” the progress they’re making—or not making.

“Tell the truth about things that aren’t working,” Bailey urges.

30-60-90

Before the vision-writing group returns to its regular work, Bailey suggests that group members identify where they want to be in 30-day increments. (See Page 3.)

What will we be doing in 30 days that we aren’t doing now? How about in 60 days? 90 days? What are we doing that we want to keep? What are we doing that we want to discard? What challenges will we have overcome? What barriers will we still face? What skills are we learning?

For example, one part of the vision might be that all students will read at grade level by the end of 3rd grade. One of the 30-day goals might be learning what other schools have done to achieve that goal. The 60-day goal might be visiting one of those schools. The 90-day goal might be evaluating what ideas can be borrowed or adapted from those schools.

By describing the future in ways that are actionable and useful, Bailey says the group can break down the big work of achieving the vision into smaller, manageable chunks of work.

At the end of each 30 days, if the group can see the progress it has made, it will feel more confident that it can move forward, she says.

ACTION PLANS

Out of the 30-60-90 task comes a set of action plans. The action plans should be as specific as the team can make them. (See Page 4 for an example.)

For example, to achieve the first 30-day reading goal, one action plan would identify who will be responsible for identifying other schools that achieved a similar reading goal and what information will be gathered from those schools.

School teams should create one action plan for each short-term goal. Each time new goals are identified, the team should create new action plans.

INFORMATION GATHERING

Visions will wither if they don’t have a continual flow of information to sustain them.

“One once you have a vision in place, if you don’t have a rich source of ideas, you will re-invent the status quo,” Conley says.

One idea for ensuring a steady flow of information is to create study groups around various components of the vision. Then, let loose a group of teachers to explore those ideas.

“Give this to those people on your staff who are the thinkers. Keep that group in intellectual turmoil. You don’t want them to settle down and become implementers. You want them to keep churning out new ideas because that brings enthusiasm back into the process,” Conley says.

STAFF MEETINGS

As schools put action plans and study groups in place, staff meetings are good opportunities to keep track of a school’s progress. Reporting and celebrating progress helps an organization build momentum and energy.

Schools that use staff meetings to regularly measure progress towards the school goals also begin to shift the school culture towards one that embraces continuous progress, Conley says. Staff understands that teachers come together to learn from each other and to talk about the work that they do, not merely to sit passively and hear information delivered by the principal.

In the case of the reading example, staff members might share the information they have gathered from other schools. Other staff members will not only be included in what a core group is learning, they will also be able to raise questions and provide more specific direction for those collecting the information.

As the school moves farther in the process, teachers might use staff meetings to share what they have learned, what they tried with their student and with what results.

DOCUMENT PROGRESS

Create some spaces in the school year where teachers and other school team members can stop and evaluate their achievements.

“Human beings are event-oriented so create an event where everyone can sit back and think and talk about what they’ve done,” Conley says.

Bring in a facilitator, perhaps a district staff developer, to guide the discussion. Conley recommends taking such meetings off-site in order to free up discussions. Bailey recommends meeting in this way once a month.

For such meetings, Bailey encourages groups to bring anything that will demonstrate what the group has achieved. This could include photographs, examples of student work, notes from journals, calendars, etc.

Then, using a chart similar to that found on Page 6, she guides the groups through a story-telling process.

THE VISION TEST

At some point, the vision should become so much a part of “the way we do business” that schools will turn to the vision for guidance on making key decisions.

The vision, rather than becoming a far-off goal to reach, will become a screen to filter out ideas. Does this proposed program or project pass the vision test? Will this help move us towards our vision?

“If it doesn’t pass through the filter, then set it aside,” says Bailey.
Making our future closer

**COMMENTS TO THE FACILITATOR:** This chart can be used to help the group make commitments to short-term actions.

**TIME:** One hour.

**SUPPLIES:** Poster paper, markers, tape.

**PREPARATION:** Facilitator should sketch out the chart depicted below and be prepared to post it on wall. Ideally, this poster will remain on a wall near the vision poster.

**Directions**

Describe our best “guess” of what we will be doing in 30-day increments to reach our vision.

<table>
<thead>
<tr>
<th>Scenario elements</th>
<th>30 days</th>
<th>60 days</th>
<th>90 days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Our major focus</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>What adults are doing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>What students are doing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skills being learned</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tools and materials being used</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Challenges: benefits and frustrations</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source:** Making Progress Visible: Implementing Standards and Other Large Scale Change Initiatives by Suzanne Bailey. For ordering information, see Page 7.

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**FROM VISION TO ACTION**

SHOW PASSION AND COMMITMENT TO THE VISION.

Express it simply but dramatically to set the tone. Show how it opens up new opportunities for the organization and everyone in it and how it can make a real difference in society. Trumpet it prominently in publications and press releases. Gain endorsement of the vision by opinion leaders inside and outside the organization.


“Vision isn’t forecasting the future. It is creating the future by taking action in the present.”

— James Collins and Jerry Porras
FROM VISION TO ACTION

ENGAGE OTHERS IN ADVANCING THE VISION.

Bring all the stakeholders into the tent. Encourage people to assume responsibilities and take risks consistent with the vision. Solicit ideas from others, both inside and outside the organization. Celebrate progress, such as grants received to implement parts of the vision or new programs successfully launched. Show appreciation for vision champions, those who take the initiative to advance the vision.


“Only passions, great passions, can elevate the soul to great things.”
— Denis Diderot

Action plan

GOAL:

MEASURES OF SUCCESS:

WHAT WILL WE DO?

HOW WILL WE DO THIS?

WHO WILL DO THIS?

WHEN WILL THIS BE DONE?

REFLECTIONS ON ACTION
Gather data to inform practice

COMMENTS TO THE FACILITATOR: This activity will encourage participants to think ahead about the kind of data they will need to gather to measure their progress in achieving the vision.

TIME: 90 minutes total — 45 minutes for individuals to complete their respective charts and 45 minutes to them to work in pairs or trios. Option: the facilitator could ask participants to fill out the chart on their own and bring it to a meeting of the large group.

Directions

1. Facilitators should reproduce the chart pictured below and distribute individual sheets to participants. Separately, the facilitator should create the same chart on a large piece of poster paper that can be posted in the room.

2. Individuals should fill in the chart, either as pre-work or as part of the session. If this is done in the sessions, allow 45 minutes for this work.

3. Divide the group into pairs or trios.

4. Each pair or trio should discuss these questions:
   - What are we learning about our practices?
   - What themes are emerging in our work?
   - What working theories can we test to increase our results individually or as a collective?
   - What new questions are we asking?
   - What best practices can we share with others?

<table>
<thead>
<tr>
<th>Situation</th>
<th>Action Planned</th>
<th>Results</th>
<th>Learnings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Context Question</td>
<td>What</td>
<td>Notable results</td>
<td>Insights</td>
</tr>
<tr>
<td>Anticipated results</td>
<td>How</td>
<td>Actual results</td>
<td>Knowledge to share</td>
</tr>
<tr>
<td>Assumptions/beliefs</td>
<td></td>
<td></td>
<td>New questions and next steps</td>
</tr>
</tbody>
</table>

Source: Making Progress Visible: Implementing Standards and Other Large Scale Change Initiatives by Suzanne Bailey. For ordering information, see Page 7.

FROM VISION TO ACTION

PROVIDE THE NECESSARY SUPPORT.

Secure funding targeted at important parts of the vision. Hire people or recruit volunteers who share the passion for the vision and can bring useful skills to bear in achieving it. Invest in training and pilot projects. Design policies, plans, and practices that support the vision. Help lower-level leaders develop their own visions and strategies consistent with the larger vision.


“We are such stuff as dreams are made of.”
—William Shakespeare,
A Midsummer Night’s Dream
Document your progress

**COMMENTS TO FACILITATORS:** This fill-in-as-you-go chart should be used in a meeting at least once a month with the core team charged with achieving the vision. This tool can be used to document the progress that schools/districts are making towards achieving their vision. By posting this in the same room where the vision is posted, the poster is also a visual reminder to teachers and others that they should be alert for evidence of how their work measures up against the vision.

**TIME:** One hour.

**SUPPLIES:** Poster paper, colored marking pens, tape.

**PREPARATION:** Re-create the chart below on a large sheet of poster paper and post it in the meeting room.

**Directions**

Assemble the core team charged with achieving the vision. Ensure that team members know in advance that they will be documenting the progress they have made in achieving the vision. The invitation for this meeting should advise participants to bring information and artifacts with them to document the work they have done.

The facilitator can be the scribe for the chart or various team members can be invited to add their own notations.

<table>
<thead>
<tr>
<th>Documentation areas</th>
<th>First month</th>
<th>Second month</th>
<th>Third month</th>
<th>Fourth month</th>
</tr>
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<tbody>
<tr>
<td>Major events and activities</td>
<td></td>
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<tr>
<td>Results</td>
<td></td>
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<tr>
<td>Learnings and best practices</td>
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<td></td>
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<tr>
<td>Artifacts</td>
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</tbody>
</table>


“Worse than being blind is to see and have no vision.”

– Helen Keller

**Source:** Making Progress Visible: Implementing Standards and Other Large Scale Change Initiatives by Suzanne Bailey. For ordering information, see Page 7.
Learning about using your vision


- *Making Progress Visible: Implementing Standards and Other Large Scale Change Initiatives* by Suzanne Bailey. Focuses on aiding schools to see the progress they are making toward their goals. Offers a new idea or new tool on virtually every page. To order copies, call (707) 448-1520 or fax (707) 448-2352. Price: $26 plus tax and shipping.


- “Translating school improvement into numbers,” by Joan Richardson, *School Team Innovator*, February 1997. Describes a cycle for data-based decision making and can be used as a guide for implementing vision. Available in NSDC’s Online Library, www.nsdc.org/library. To order a back copy, calling the NSDC Main Business Office at (800) 727-7288.

The web

www.nsdc.org/library/mission.html

Look in the NSDC Online Library for more resources on both mission and vision work. This library is updated regularly with new materials. Comprehensive members of NSDC also have access to full text of every NSDC publication. To learn more about that membership option, contact the NSDC business office at (800) 727-7288.
Several years ago, our school went through the whole visioning process. We had a lot of meetings and we spent a lot of money to create banners but nothing really happened. I agreed with the ideas in the vision statement and I was disappointed that the principal didn’t provide more direction in making it come true. Is there anything I can do by myself?

Schools often give up before they start because achieving the vision feels hopeless. If the vision process has been done correctly, schools have described a big future that is beyond their grasp. That future feels too big, too unachievable, too different. There has to be a discrepancy between what is and what ought to be. If there isn’t, then the vision is only an endorsement of the status quo.

The antidote to that feeling of hopelessness is to break down the work of implementing the vision into bite-size chunks.

Ideally, the principal of your school should facilitate a plan for how the school will achieve the vision. But, if the principal is unable to provide that kind of leadership, you can still do some of this work yourself.

Break down the vision statement into its components and decide which component you want to focus on. Then, each day, think about what you can do to work towards making that portion of the vision a reality.

For example, if your vision includes a statement about ensuring a close relationship between the school and families, you might contact the parent of one child in your class each day, either by telephoning or writing a note to the parent.

Then, at the end of each day, look back at your work and identify what you did that day that you would consider “vision work.”

You can take many of the ideas described in the main article of this issue and personalize them for yourself. For example, you can collect data about your own students. You can measure their achievement over time. You can write stories about the work they’re doing and how they’ve changed.

As times goes along, you may find ways to let your colleagues know what you’re doing and what you’re learning. In that way, you will be able to encourage others to do similar work themselves.

And, in that way, you will be doing significant work to help your school achieve its vision.
Taking Steps into Our Future: 30-60-90 Tool

Q: How do you eat an elephant?

A: One bite at a time

Making the connection between professional learning content and strategies and student learning can be accomplished through the use of a tool called 30-60-90, introduced by Suzanne Bailey. The tool helps to break down goals into small incremental steps, which research on change has found increases the likelihood of success. When staff members see change in small pieces, it can increase their confidence in trying new classroom practices while receiving support from colleagues.

The school staff or small learning groups can use this tool to define specific expectations for staff’s use of new strategies. In the example, a reading goal has been separated into component parts. In the first 30 days, staff implement the reading goal by developing higher-level questions for students to use during reading instruction. Students will practice answering those questions during the first 30 days. The skills and tools that students may need to learn to scaffold their ability to answer higher-level questions are identified.

The challenges, benefits, and frustrations row asks staff to predict what could happen as a result of this work. The intention is to prepare staff for a variety of reactions to the new practices and to provide possible solutions to these outcomes.

The final row asks staff to identify evidence of use and results. One way to use this information might be to ask every staff member at the end of the 30-day period to bring evidence of his or her work to a staff or learning team meeting. General sharing of the samples increases accountability and can also be used for celebrating progress toward the goal. The goal might be more appropriately implemented in longer or shorter time frames.

Review the sample 30-60-90 tool and then engage staff and learning teams in developing one of their own.

<table>
<thead>
<tr>
<th>Elements</th>
<th>30 days</th>
<th>60 days</th>
<th>90 days</th>
</tr>
</thead>
<tbody>
<tr>
<td>OUR MAJOR FOCUS</td>
<td>Reading comprehension</td>
<td>Reading comprehension</td>
<td>Reading comprehension</td>
</tr>
<tr>
<td>WHAT ADULTS ARE DOING</td>
<td>Focusing on developing a range of questions</td>
<td>Focusing on developing a range of questions</td>
<td>Focusing on developing a range of questions</td>
</tr>
<tr>
<td>WHAT STUDENTS ARE DOING</td>
<td>Majority of time using higher-order thinking skills</td>
<td>Majority of time using higher-order thinking skills</td>
<td>Majority of time using higher-order thinking skills</td>
</tr>
<tr>
<td>SKILLS BEING LEARNED</td>
<td>Compare and contrast</td>
<td>Compare and contrast</td>
<td>Classifying: Organizing according to similarities</td>
</tr>
<tr>
<td>TOOLS AND MATERIALS BEING USED</td>
<td>Graphic organizers: Venn diagram</td>
<td>Graphic organizers: Comparison matrix</td>
<td>Graphic organizers: Bubble chart</td>
</tr>
<tr>
<td>CHALLENGES, BENEFITS, AND FRUSTRATIONS</td>
<td>Teachers and students will be frustrated because they won’t be good at this yet</td>
<td>Student frustration, matching questions to those found on the AIMS</td>
<td>Teachers’ time to develop higher-order questions for primary students—these questions are rare in textbooks</td>
</tr>
<tr>
<td>WHAT EVIDENCE DO WE HAVE THAT WE ACCOMPLISHED THIS STEP?</td>
<td>Venn diagrams completed by students</td>
<td>Comparison matrix charts completed by students</td>
<td>Bubble charts completed by students</td>
</tr>
</tbody>
</table>

Source: Adapted from Suzanne Bailey’s work.

## WORKSHEET: 30-60-90 DAYS

<table>
<thead>
<tr>
<th>Elements</th>
<th>30 days</th>
<th>60 days</th>
<th>90 days</th>
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<tbody>
<tr>
<td>OUR MAJOR FOCUS</td>
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<td>TOOLS AND MATERIALS BEING USED</td>
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<tr>
<td>WHAT EVIDENCE DO WE HAVE THAT WE ACCOMPLISHED THIS STEP?</td>
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**Sample PROFESSIONAL LEARNING FORMATIVE EVALUATION PLAN**

**Evaluation Question:** Do the new ELL reading strategies improve regular and ELL student learning?

**Annual Student Achievement Goal (SMART goal):** By 2014, increase the number of 3rd-, 4th-, 5th-, and 6th-grade students’ reading achievement scores at the “meets” or “exceeds” level on the state assessment by 15%.

**Professional Learning Goal:** By 2013, teachers will use ELL strategies in reading instruction every day, as measured by lesson plans, walk-throughs, and teacher self-reports.

1st Benchmark Date: **October 2012**

1st Benchmark Target: Teachers can describe appropriate ELL reading strategies and when to use those strategies during reading instruction.

<table>
<thead>
<tr>
<th>Data or evidence (needed to determine whether the benchmark has been accomplished)</th>
<th>Data source, instrument, tool (what/who supplies this data or evidence)</th>
<th>How will data be analyzed? (tallied, scored using a rubric, percentages calculated, pass/no pass)</th>
<th>Timeline (when it will happen, when it is due)</th>
<th>Person responsible for collecting and/or analyzing data</th>
</tr>
</thead>
</table>
| Evidence that teachers know and understand when to use ELL reading strategies | • Data from teachers’ Case Study activity used in professional learning | • Scoring will be done with a rubric  
• Scoring will be done by an outside expert and instructional coach | No later than October 31, 2012 | • District ELL specialist  
• Instructional coach  
• SLT team leader |
### 2nd Benchmark Date: January–March 2013

**2nd Benchmark Target:** Teachers can plan reading lessons that use ELL reading strategies appropriately.

<table>
<thead>
<tr>
<th>Data or evidence (needed to determine whether the benchmark has been accomplished)</th>
<th>Data source, instrument, tool (what/who supplies this data or evidence)</th>
<th>How will data be analyzed? (tallied, scored using a rubric, percentages calculated, pass/no pass)</th>
<th>Timeline (when it will happen, when it is due)</th>
<th>Person responsible for collecting and/or analyzing data</th>
</tr>
</thead>
</table>
| • Evidence from plans showing use of new strategies | • Lesson plans | • Tally the kinds of strategies that are being used | Once a month  
• January 2011  
• February 2011  
• March 2011 | • Principal  
• Team leaders  
• Instructional coach |
| | • Teacher self-reports  
• Rubrics | • Change tallies into percentages  
• Determine the proportion of appropriate use | | |

### 3rd Benchmark Date: May 2013

**3rd Benchmark Target:** Educators use at least three strategies daily in reading instruction.

<table>
<thead>
<tr>
<th>Data or evidence (needed to determine whether the benchmark has been accomplished)</th>
<th>Data source, instrument, tool (what/who supplies this data or evidence)</th>
<th>How will data be analyzed? (tallied, scored using a rubric, percentages calculated, pass/no pass)</th>
<th>Timeline (when it will happen, when it is due)</th>
<th>Person responsible for collecting and/or analyzing data</th>
</tr>
</thead>
</table>
| Observation of classroom practice | Classroom walk-through tool | Tally of all walk-through observation tools | Week of May 7, every regular classroom will be visited twice during | • Principal  
• Instructional coach |
**4th Benchmark Date:** October 2013

**4th Benchmark Target:** Teachers are appropriately and consistently using desired reading strategies daily.

<table>
<thead>
<tr>
<th>Data or evidence (needed to determine whether the benchmark has been accomplished)</th>
<th>Data source, instrument, tool (what/who supplies this data or evidence)</th>
<th>How will data be analyzed? (tallied, scored using a rubric, percentages calculated, pass/no pass)</th>
<th>Timeline (when it will happen, when it is due)</th>
<th>Person responsible</th>
</tr>
</thead>
</table>
| • Observation of classroom implementation | • Innovation Configuration (IC) map | Percentage of people using strategies by level on the IC map | Unannounced observations done during October | • Principal  
• Instructional coach  
• Grade-level teams  
• Individual teachers |
| • Teacher self-reports | • Teacher Self-Report tool based on Innovation Configuration maps | | | |

**Final Evaluation:** June 2014

**Final Target:** By 2014, increase the number of 3rd-, 4th-, 5th-, and 6th-grade students’ reading achievement scores at the “meets” or “exceeds” level on the state assessment by 15%.
<table>
<thead>
<tr>
<th>Data or evidence (needed to determine whether the benchmark has been accomplished)</th>
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<th>Timeline (when it will happen, when it is due)</th>
<th>Person responsible for collecting and/or analyzing data</th>
</tr>
</thead>
</table>
| State assessment scores for students who have been at the school over the last 18 months | State assessment reading scores compared from 2008 to 2010 | Proportion of students who increased 15% | Summer 2014 | • Principal  
• School improvement team  
• District office data person  
• Instructional coach |
The real measure of a professional development program’s effectiveness lies in what participants learn.

Data that gauge participant reactions during professional development programs help leaders spot trouble areas and know when and where to adjust the program midstream. Participant reaction data also can help validate the program’s design. While compelling, participant reaction data should not be confused with participant learning data. Reactions tell us only part of what we need to know. However cleverly we collect participants’ impressions and opinions, these data cannot answer the question: “What are the participants actually learning?”

Happily, many professional development programs now take responsibility for real participant learning. In these programs, assessing learning goes beyond simply documenting it. It also helps accelerate participants’ learning and deepen their knowledge of themselves as learners and professional educators. Professional development leaders help ensure their participants learn and can use the program content by assuming multiple helping roles — teacher, facilitator, coach, classroom observer, friendly critic, or mentor.

SOLID PRACTICES

Participant learning is being promoted through solid practices such as these:

- **Some leadership academies use a variety of tools to determine what participants know when they enter the academy and what they know and can do when they exit.** Academy participants complete a self-assessment with input from colleagues, then demonstrate their learning and increased skills through a series of performance tasks. Finally, they apply what they learn in the academy by completing an action plan or action research project at their school with help from a coach or mentor.

- **Some technology training programs, especially those in which participants start with widely varying levels of knowledge and skill, use pre- and post-assessments to measure what each participant knows and can do.** They may also help participants demonstrate what they are learning by having them develop a practical learning product that integrates technology into their own instructional program. Many of these technology programs require that participants also display what they have learned on the program’s web site.

  - **Some yearlong programs gauge teacher growth through ongoing classroom homework projects.** Participating teachers try out their growing knowledge and skills and analyze the impact of new protocols on their students throughout the year. The teachers keep an implementation log to help them reflect on what they are learning. Program leaders or peers assist by gathering observation data through “pop-in” visits in classrooms. The program also may have teachers present what they learned through their classroom experiments to peers who act as each other’s “critical friend.”

  - **Some workshop leaders pause periodically throughout the event to check participant understanding of the important constructs or models in the program content.** Quick checkups may involve a prompt to write, such as, “In 50 words or less, explain ...” or “Write a three-minute paper to explain ...” or “What should the teacher on the video do next to _________?” Participants check their own responses against an answer key or scoring guide, or they discuss their responses with peers and get feedback from each other and the trainer.

  Programs that assess participants’ learning are based on solid beliefs about the complexities of learning and assessment. Grant Wiggins and Jay McTighe explained that relationship in *Understanding by Design* (ASCD, 1998): “Understanding ... involves sophisticated insights and abilities reflected in varied performances and contexts. ... We also suggest that different kinds of understandings exist, that knowledge and skill do not automatically lead to understanding, that misunderstanding is a bigger problem than we realize, and that assessment of understanding therefore requires evidence that cannot be gained from traditional testing alone” (p. 5). The bad news is that in some organizations, the paradigm for professional development remains one in which the design does not include accountability for participant learning. In those places, professional development’s role typically is to motivate staff or expose them to the Next New Big Thing, and possibly to demonstrate some techniques that may increase student learning. The measure of the program’s success is often attendance.
record or teacher participation rather than results. In those contexts, changing to results-based professional learning will be a significant paradigm shift.

10 SUGGESTIONS

To make a professional development program accountable for participant learning, you will first need to lay some groundwork. Consider the following 10 suggestions to help you make that shift successfully:

1. Avoid surprise ambushes. Before a program begins, let participants know their learning progress will be checked frequently. They need to understand which tools will be used to check understanding and measure developing skills. Participants also need to know that the purpose of the learning assessments is to ensure that everyone successfully learns the content and begins using it. Participants will want answers to questions including, “How will the assessments be scored?” “How will they be used?” and “Who will see them?”

2. Design the professional learning experience to ensure participants’ learning success. Organize learning time so all participants get ample assistance in learning the content. Assume your adult learners are diverse and therefore will need varying amounts of assistance. Allow plenty of time to answer their questions, to re-explain areas of confusion, to coach individuals or teams as they begin to apply the content to their particular context, and to provide timely feedback on their application projects and learning products.

3. Check learning progress early and often. Check participants’ understanding of small chunks of the content frequently using various measurement techniques. Avoid waiting until the end of the program to measure everything. Remember that the primary purpose in gathering learning data is to facilitate participant learning, not to document what participants did or didn’t learn at the end of a program.

4. Practice what you teach about assessment tools. Model how to use the kinds of assessment tools you want participating educators to use with their own students. For example, if your professional development program content encourages the use of rubrics, scoring guides, performance tasks, assessment games, portfolios, student-made graphic organizers, learning logs, or role-play exercises for students in their schools, accelerate teachers’ and principals’ learning by using those assessment tools with them as they learn.

5. Use the learning data immediately to improve the program. Treat whatever learning data you collect as formative data, meaning that the data should be used immediately to improve the program. Once you examine the participant learning data, decide what to do with it. You need not decide by yourself what to change in the program. Collaborate with your participants about what alterations make the most sense to help them build their competence and implement what they are learning.

6. Respect your learners’ privacy. Avoid setting up the situation in which participants must make personal learning results public. For example, if you are using a pre-training and post-training assessment exercise to monitor participant learning, assume that participants do not want their scores displayed or announced. Even if you measure participant learning with a fun activity, such as a simulation, crossword puzzle, “50-words-or-less” quiz, or “three-minute paper,” avoid embarrassing participants whose scores are low.

7. Check learning at higher levels. Be sure to match the level of your learning assessments with the program’s intended learner outcomes. You likely will want your participants to do more than explain, recall, select, and list the new information. If so, tailor your assessment so participants show they can analyze, compare, contrast, classify, infer, judge, predict, estimate, create a product or performance of their own, and apply a model to new situations.

8. Before using any learning assessment tool, work out the bugs. Always field-test your learning assessments before using them. Adult learners in the field of education are savvy about assessment tools. Expect them to be quick to criticize a learning assessment if they spot that the tool is shaky, the directions are convoluted, or the scoring guide is arbitrary.

9. Assess the important constructs and skills. Limit the learning assessments to the most important constructs and major skills, not tangential content.

10. Remember to move on to the next evaluation question. Once you have evaluated participant learning, address the next question: “Are participants using what they learned?” Some tools that measure participant understanding and skill development also can be used to check how well participants are implementing what has been learned. Homework assignments done in participants’ classrooms or schools can do double duty — they not only help gauge participant learning, but can help estimate how teachers are using what they have learned.

Achieving significant results from professional development programs always will depend on several complex interrelated factors. One factor within professional development leaders’ control is checking whether our participants’ understanding and skills are growing.
last year, professional development at Mason Middle School* included an eclectic array of programs. This year, the school improvement team recommends that professional development focus exclusively on higher-order thinking skills. Some teachers wonder how that focus was identified.

“We looked at data about student performance on state, district, and schoolwide common assessments and analyzed teachers’ assignments,” explains Cheryllyn Sanchez, the school’s staff developer, “and discovered that students are rarely using higher-order thinking skills. The questions they are missing on some of the assessments involve analytic and interpretive thinking.”

To address this problem, the school improvement team recommends that teachers adapt their assignments to include higher-order thinking, teach students how to think analytically and creatively, and assess students’ thinking skills. The questions they are missing on some of the assessments involve analytic and interpretive thinking.

To address this problem, the school improvement team recommends that teachers adapt their assignments to include higher-order thinking, teach students how to think analytically and creatively, and assess students’ thinking skills. The professional development plan addresses these three areas.

For staff development to improve student learning, staff development leaders want the content and process of adult learning to align with the identified learning needs of students. Using a variety of data sources, both formal, such as state tests, and informal, such as classroom assessments, ensures that decisions related to data are more thorough and accurate than they would be if a single source of data were used.

After the focus for staff development is identified and a plan of action developed, data help the school improvement team, principal, and teaching teams know if their plan to incorporate more direct teaching and assessment of thinking skills in the classroom is occurring. Analyzing a variety of data throughout the school year will help teachers know the results of their work and will help them make better decisions about the impact of their work on students’ performance on a variety of assessments.

Three times during the year — in October, January, and April — Sanchez asks teachers to bring one assignment and five student responses to the assignment to a faculty meeting. She organizes teachers into interdisciplinary, vertical teams. Each teacher presents his or her assignment. Team members discuss the level of cognition the assignment requires. Next, each takes a sample of student work and determines if the work demonstrates the level of cognition expected and identifies their evidence. The discussion on each teacher’s assignment and student work takes about 10 minutes. Near the end of the hour-long faculty meeting, teams complete an anonymous summary sheet that identifies the levels of thinking their five assignments required and the number of students who demonstrated the appropriate level of thinking.

Sanchez collects the anonymous summary sheets and uses them to determine if the assignments require a range of higher-order thinking skills and if students are successful in applying them. She uses these ongoing data to help her plan for the ongoing year-long professional development on higher-order thinking skills and to provide the school improvement team with evidence of progress toward the schoolwide goal.

* Fictitious person and school
## Learning team log

<table>
<thead>
<tr>
<th>Facilitator:</th>
<th>Date:</th>
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<table>
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<tr>
<th>Team members present:</th>
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<table>
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<table>
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<tr>
<th>Chief challenges: (10 minutes)</th>
<th>Proposed solutions: (10 minutes)</th>
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<tbody>
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</table>

<table>
<thead>
<tr>
<th>Action plan/next steps: (20 minutes)</th>
<th>Person responsible</th>
<th>Timeline</th>
<th>Evidence of success</th>
</tr>
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<td></td>
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<table>
<thead>
<tr>
<th>Summary of meeting results:</th>
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## Collaborative learning log

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<th>Date:</th>
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<tbody>
<tr>
<td>Starting time:</td>
<td>Log recorder:</td>
</tr>
<tr>
<td>Attendance:</td>
<td></td>
</tr>
</tbody>
</table>

Topics addressed:

Summary of outcomes/conclusions:

Debriefing of content and process of meetings:

Next meeting focus:

Date/time: Place:

Unfinished business:

Individual assignments:
In 1998, educators at Haas Middle School in Corpus Christi knew they needed to change: 47 percent of the students were retained in their grade each year and some children were spending three or four years in the same grade.

“We knew we had to do something to change what was going on in the classroom. No one had given any instructional guidance to the faculty in years,” said Deborah Scates who arrived that year as principal.

The strategy that has had the greatest impact on changing teacher behavior and improving Haas has been Instructionally-focused Walk Throughs, she said. “The relationships in the building have changed. Everything now is focused on staff development and improvement of teaching. It’s all about learning here,” Scates said. Student achievement on Texas’ statewide reading assessment has also improved, she said.

Although many educators are familiar with walk throughs, the walk through is a new twist on an old idea.

In more traditional walk throughs, someone — usually a principal or an outside observer — goes through the school with a checklist and notes a variety of activities or materials in the classroom. “Sometimes, they stop in a classroom for a long period of time. Sometimes, they just stick their head in the door. What they want out of it is not really well-defined so they don’t get much out of it,” said George Perry, a consultant who works with several Corpus Christi, Texas, schools under a grant from the Edna McConnell Clark Foundation.

Whether known as “instructional walks,” “learning walks,” or “data in a day,” the pattern of walk throughs is roughly the same: A team of observers is dispatched to numerous classrooms where they spend about 10 minutes looking for very specific things. At the conclusion, the observers assemble their information and share what they have learned with the teachers whose rooms have been observed.

Unlike a classroom observation which provides a view of a single classroom, a walk through

Continued on Page 2
Walk throughs offer new way to view schools

Continued from Page One

creates a schoolwide picture made up of many small snapshots, Perry said. It’s a strategy for providing a school, not an individual teacher, with feedback about what it’s doing or not doing, he said.

“You can gather a lot of really good information in a short period of time if you’re very focused on what you’re doing. The more narrow the focus, the easier it is to talk with someone about what they’re doing,” Perry said.

At Haas, a team walks through about once a week, Scates said. Sometimes, the observers are from other Corpus Christi middle schools whose principals work closely with Scates. She then reciprocates by doing walk throughs of their schools. But, nearly every week, a Haas team walks through the building. The school-based team includes Scates, an assistant principal, and three or four teachers. Teachers rotate on and off the walk through team. So far, about half of the Haas teachers have participated in a walk through as a team member. The rest will get their chance this year, she said.

CLEAR FOCUS

As with any school improvement process, a school that wants to do walk throughs needs to be familiar with its data about student achievement and to have deep conversations about what teachers will do to improve student achievement. In those discussions, teachers must be clear about what is expected to happen in each classroom and principals need to ensure that teachers are provided with professional learning opportunities to help them make the necessary changes.

Walk throughs are a way of collecting data about the school’s success in achieving its goals, Perry said. They provide a way for the principal to determine what additional support teachers need in order to achieve the school’s goals.

At Haas, for example, the overarching focus is on literacy and one of its goals is to increase the amount of student writing. Preparing for a walk through to gauge the school’s progress on that goal, the visitors would assemble in the principal’s office for about 30 minutes and discuss what they would expect to find in a middle school classroom:

- Visitors would see students writing.
- Visitors would see evidence of past student writing such as piles of written work in the classroom and examples of student writing posted on classroom walls.
- Students would maintain writing journals.
- Students would be able to explain the writing process.
- Exemplary student writing would be highlighted so students know the standard for good writing.
- Prompts for journal writing would be on the chalkboard.

Before going into the classroom, visitors would be assigned a specific task. For example, one visitor might be assigned to note whether and what types of student writing are displayed in the room, another to write down what is written on the chalkboard, and another to pull aside one or two students to learn what they understand about the writing process.

In most walk throughs, the teaching continues and the visitors sit in the back or walk quietly around the classroom looking for evidence, Perry said. If visitors are going to talk with students, teachers need to be aware of that ahead of time. The visitors do not speak to each other while they are in a classroom.

Visitors spend only 10 to 15 minutes in each room. The visitors repeat the same pattern in each classroom they visit.

DEBRIEFING

After leaving each classroom, the team of visitors goes down the hall a short way and spends about five minutes comparing notes. After visiting all of the classrooms for that day, the visitors assemble and spend about 45 minutes going over the evidence they have collected.

At Haas, Scates prepares two reports. The first is a general report about what the team observed; the second is an individual report for each teacher.

She takes that a step further by having a private conversation with each teacher within a day of the walk through. “I think the worst thing you could do is put the form in a box and not talk with them,” she said.

Typically, her conversations sound like this: “I saw you were doing this. Can you explain why you were doing that? I noticed that you didn’t do this. Can you explain why?”

“When the teachers answer the questions, that’s where the learning comes in,” she said.

Perry believes the walk throughs also produce information in bite-sized pieces that are easier for teachers to digest. “Talking to a teacher or to a faculty about a whole laundry list of things confuses the issue. That allows teachers to pick and choose what they hear and what they respond to. It’s easier to attend to a shorter list of things than a longer list of things.”

Learning for teachers also occurs when they have a chance to get inside another teacher’s classroom. “That really opens their eyes to the need for improvement and for consistency. They assume everyone else is doing what they’re doing. They find that’s not the case,” Scates said.

Perry agrees. “Not until teachers get into each other’s classrooms and see practices are they actually able to understand what’s going on and why there’s a need for change and for ideas about how to do that.”
Walk Through Plan

Preparation meeting

Time: 30 minutes.
• Assemble members of the walk through team.
• The principal identifies the focus for the walk through, the classrooms that will be visited, and why those have been chosen for visits.
• The principal leads a discussion during which team members identify evidence that would support the focus. One team member records responses on a display board.
• Determine which team member will look for each type of evidence.
• Distribute feedback forms to each member.

Walk through

Time: Between 10 to 15 minutes per classroom.
• All team members enter the classroom at the same time. Team members do not speak to each other during their time in the classroom.
• Team members sit at the back of the classroom unless they have a specific assignment to speak to students or examine student work.
• Team members make notes about their assigned area. If appropriate, team members may want to sketch out a map of the classroom that indicates the location of a piece of evidence they observed.
• At the end of the agreed-upon time, all team members leave the classroom together.

Debriefing – Outside the classroom

Time: 5 minutes per classroom.
• Team members walk a short way down the hall from the observed classroom.
• Speaking quietly, team members quickly share their observations regarding the last classroom visited.
• Team members then proceed to the next classroom.

Debriefing – Final

Time: 45 minutes.
• Walk through team members assemble in the principal’s office or other agreed-upon meeting place.
• Each visitor speaks about his or her observations. They provide specific evidence as well as attempt to present an overview of what they saw.
• Together, the team members identify trends, areas of strength, and areas that need improvement.
• Drawing on their own experience and knowledge, the visitors make suggestions about how to strengthen areas that need improvement.
• The principal makes notes on the discussion and collects the feedback forms. The principal will decide the best way to provide information back to the teachers whose classrooms were visited.

Walk throughs provide an opportunity to:

Reinforce attention to an instructional and learning focus in the school’s improvement plan.

Gather data about instructional practice and student learning to supplement other data about school and student performance.

Stimulate collegial conversation about teaching and learning through asking questions about what evidence is and isn’t observed.

Learn from other participants through observations, questions, experiences and perspectives.

Deepen understandings and practices by continuous feedback.

Deepen understandings and practices related to continuous improvement.

Source: Perry and Associates.
## Walk Through – Individual Feedback Form

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Adapted from the work of Perry and Associates. For more information about their work, contact George Perry, (781) 934-6294 (telephone or fax) or e-mail perry123@cape.com.
Walk Through – Group Feedback Form

As the group of observers debriefs, one individual acts as recorder and compiles a record of the group’s observations.

The principal keeps the individual feedback forms and the group feedback form. Only the group feedback form will be shared with all teachers whose rooms were observed.

Date

Focus Question

Evidence that supports the focus. We saw ...

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Adapted from the work of Perry and Associates. For more information about their work, contact George Perry, (781) 934-6294 (telephone or fax) or e-mail perry123@cape.com.
Walk Through – Group Feedback Form  

Evidence that was missing. *We expected to see but did not see ...*

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Sketching a rough map of each classroom may help visitors recall where they saw certain evidence and make it easier for the observed teachers to understand some of the feedback.
Resources for walk throughs

“By the numbers,” by Margery Ginsberg, Journal of Staff Development, Spring 2001. Describes the Data in a Day process as it has been used to collect information about classroom practices that support student motivation. Available online at www.nsdc.org/library/jsd/ginsberg222.html.

Data in a Day. Concept developed by Northwest Regional Educational Laboratory to gather data about issues considered important by staff and students. NWREL’s web site offers information to get a school started on this process. www.nwrel.org/scpd/scc/studentvoices/diad.shtml.


From the NSDC library

Past issues of NSDC publications have focused on a number of topics that would benefit a school interested in the walk through strategy. This is just a sampling of resources that can be found at the NSDC web site, www.nsdc.org/library.htm or ordered through the NSDC Online Bookstore.

Action Research Facilitator’s Handbook by Cathy Caro-Bruce which offers extensive information about this process.

Collecting data was the focus of the October/November 2000 Tools for Schools and the Winter 2000 issue of the Journal of Staff Development.

New York’s District 2 was the focus on an article in the December/January 1999 issue of Results.

Walk throughs featured at NSDC conference

One of the preconference sessions at the December 2001 NSDC Annual Conference in Denver will be devoted to walk throughs.

Carolyn Downey of the Palo Verde Associates in San Diego, Calif., will present “Walk Throughs with Reflective Feedback: An Effective Coaching Strategy for Increasing Student Achievement.” The daylong session will meet on Saturday, Dec. 1. Its session number is 106.

Downey will describe a brief classroom observation structure that focuses on determining which classroom objectives are being taught and effective teaching practices being used. The session will include videotapes and simulated classroom walk throughs.

More information is available in the Conference Program: A Networking Guide or on the conference pages on the web site at www.nsdc.org/conference01.htm.

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MAIN BUSINESS OFFICE
PO Box 240, Oxford, Ohio 45056
(513) 523-6029
(800) 727-7288
(513) 523-6038 (fax)
E-mail: NSDCoffice@aol.com
Web site: www.nsdc.org

Editor: Joan Richardson
Designer: Sue Chevalier

NSDC STAFF
Executive director
Dennis Sparks (SparksNSDC@aol.com)
Deputy executive director
Stephanie Hirsh (NSDC.Hirsh@aol.com)
Director of publications
Joan Richardson (NSDCJoan@aol.com)
Director of programs
Mike Murphy (NSDCMurphy@aol.com)
Director of special projects
Joellen Killion (NSDCKillion@aol.com)
Business manager
Leslie Miller (NSDCLeslie@aol.com)

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Walk throughs are not part of evaluations

Q My principal has concocted some plan to start dropping by classrooms more often to check on progress toward school goals. She says she’s only going to spend 10 minutes in my room. I think that’s supposed to reassure me but I’m worried about having her develop an opinion about my work during such a brief visit. What if she comes in at the same time one of my kids is acting up and I’m dealing with that instead of doing the lesson she thinks I ought to be doing? What if she comes in when I’m trying something with my kids that I haven’t done before?

Many teachers are reluctant to have visitors in their classrooms for any reason. Before your principal begins doing walk throughs, she needs to lay a solid foundation with her staff.

Teachers should always be well informed about the overall focus of their school and what specific goals their school is working on during any school year. They should know the expectations for student learning and for instruction in each subject they teach. The staff needs to understand that walk throughs are part of a school improvement process and part of staff development. They are not intended to be “gotchas.”

Walk throughs still serve a limited purpose. Because they are brief — between 10 to 15 minutes — and very focused, they are not intended to function as full-fledged observations for teacher evaluations. Pieced together with walk throughs of multiple classrooms, they provide a good overview of a very focused topic. But that overview is more about the school’s progress towards its goals than about individual progress.

Districts and unions typically have contract language that spells out how and when information obtained during any observations can be used in teacher evaluations.

Some districts even require visitors — except principals — to sign agreements stating that information from their visits will remain confidential and that they will provide feedback only to the teacher and will not use anything obtained during the observation in an evaluation.

Schools that want to use walk throughs also ought to consider involving the local teachers union president in early discussions. That will educate the union about the intentions of the principal and also ensure that the principal is aware of any union concerns that may be aroused.
Snapshots of learning

Classroom walk-throughs offer picture of learning in schools

BY JOAN RICHARDSON

Nadia Carlson* steps into an elementary classroom and pauses at the back of the room. Her focus today is to observe exactly what students are doing. She scans each cluster of desks, making notes about the children who are engaged in the lesson and those who are not. She quickly dips down and quietly asks one student what she is learning. Just as smoothly as she has moved into the room, Carlson slips out the door five minutes later.

Classroom walk-throughs are not traditional classroom observations. They are shorter, more focused snapshots of learning in a single classroom in order to assist one teacher or across a variety of classrooms in order to create a bigger picture of learning in a school. Walk-throughs are known by many names — walkabouts, instructional walks, learning walks, data in a day. Regardless of the name, the process is roughly the same: one or more observers spend three to five minutes in a classroom looking at one specific component of instruction. If there are two or more visitors, they debrief with each other for a short time after the walk-through. Finally, whether there is one visitor or several, observations are shared, preferably verbally and soon after the visit, with the teachers whose classrooms have been visited.

Classroom walk-throughs were inspired by “management by walking around,” a concept that took hold in corporate offices in the early 1980s as a way of putting managers in touch with employees. By the mid-’90s, the idea has surfaced in school...
Snapshots of learning: Classroom walk-throughs offer picture of learning in schools

Continued from p. 1

districts as a way for principals to gain a better understanding of what was happening with classroom instruction.

In the last five years, however, the use of walk-throughs has blossomed as teachers have become more comfortable opening the doors of their practice and principals more confident and skilled about offering feedback about teaching and learning. As the practice has become more widespread, the educators who are involved in walk-throughs has also become more diverse. Initially the domain of principals, instructional coaches and classroom teachers now frequently engage in walk-throughs.

“When teachers are involved in doing the walk-throughs, that’s when it really takes off in a school,” said George Perry, an educational consultant who estimates he does about 150 walk-throughs a year in various schools. Perry calls the walk-through “one of the most powerful tools that educators can use to stimulate conversations around improving teaching and learning.”

Because it’s based on a school’s own daily routine, it’s the most valuable data schools can collect and it’s very valuable professional development,” Perry said.

READINESS FOR WALK-THROUGHS

Principals should introduce walk-throughs only when there is a high level of trust between teachers and administrators.

Teachers tend to be most concerned about whether the information gleaned during a walk-through will remain confidential, especially whether it will be used as part of their annual evaluation.

Information obtained in a walk-through is intended to be used with the teacher who was observed and no one else. That information should not be discussed with other teachers and notes from the observation should not go into a teacher’s file nor be used in an evaluation.

WHAT DOES IT LOOK LIKE

Principals can avoid much of the confusion about how information is used if they ensure in advance that teachers have a good understanding of the process, Perry said.

He recommends engaging the school leadership team in the discussion. “It’s most helpful when the leadership team takes this to other teachers,” he said.

Initially, principals should announce in advance when they will do walk-throughs and what they will be observing. The focus could be the same for the entire school or it could vary for each grade level or department. The focus could remain the same for a week or for an entire month, depending on how frequently the visits will occur.

As walk-throughs have become more popular, more varieties of walk-throughs have emerged.

If a small group of observers is visiting a variety of classrooms, for example, the principal or school coach would assemble the visitors in advance. During that meeting, she would instruct visitors about the focus of the visit and each visitor would be assigned a task. One visitor might be asked to watch for student engagement in the lesson, another to note what is on the wall or the chalkboard, another to observe the materials students are using.

If a principal is visiting a variety of rooms alone, she still should identify the focus of her observations in advance. For example, she might walk through seven 3rd-grade classrooms and look at materials that students are using for the lessons at that moment or she might record whether cooperative learning is occurring.

“I used to tell teachers just to go on as if we’re not there, just ignore us. Now I recommend that visitors introduce themselves to the teacher. This is just a 30-second conversation with the teacher so the teacher can acknowledge that you’re in the classroom,” Perry said.

When a group of observers moves through a variety of classrooms, they should gather at the conclusion to speak about what they have seen. This is presented as factual observations, not just opinions. “Students were working individually,” not “I don’t know why students weren’t working with partners for this assignment.”

The principal or his designee should provide
Continued from p. 2

feedback to the teachers who were observed. Perry recommends that feedback include strengths (“I was impressed by ...”), questions (“I wonder about ...”), and, when appropriate, next steps. (“May I bring some teachers to see how you ...” or “I would like to talk with you about ...”).

ADMINISTRATIVE WALK-THROUGHS

Using walk-throughs has changed the atmosphere at Lomax Junior High School in LaPorte, Texas, said principal Leigh Wall. “They put the focus on learning. It’s not about what kids are doing, it’s about what they’re learning,” Wall said.

Wall has been doing walk-throughs at Lomax for two years and typically visits about 20 classrooms a week. So far, the building’s three administrators and the department heads have done all of the walkthroughs. Each administrator focuses on one grade and certain content areas and tries to get into about two dozen rooms each week. Department heads are expected to do one walk-through each week. Each uses a handheld device to keep track of the observations in individual classrooms. Data from the handhelds can later be downloaded into Wall’s computer, where she can quickly assemble information from a variety of classrooms to view a picture of learning in her school.

The LaPorte district provided a three-day training in the process for all principals; Wall paid to have her assistant principals included as well. She later trained teachers at her school in the process, even though only administrators were initially doing the walk-throughs. “I wanted teachers to really understand the process,” she said. During this school year, Wall plans to add teachers to the walk-throughs. Teachers asked administrators to use the walk-throughs to determine if they were implementing Marzano’s nine instructional strategies. One of their discoveries was that teachers were not implementing the summarizing and notetaking strategy appropriately. Many of them were just having students copy notes from the board, Wall said. As a result of that, teachers requested more staff development in how to appropriately implement that strategy, she said.

WALK-THROUGHS BY COACHES

Principals are not the only ones who can do effective classroom walk-throughs. The Alabama Reading Initiative (ARI) has trained more than 1,000 K-3 reading coaches in its process of student targeted classroom walk-throughs. New coaches learn the technique during a summer institute. Novice coaches observe a principal and coach prepare for the walk-through, do an actual walk-through in a demonstration classroom, and finally debrief their observations.

“This gives them a chance to see a walk-through in action,” said Georgina Pipes, who coordinates the reading coaches statewide.

“We always want a principal and a coach to do these together, although sometimes it might be a school’s whole literacy leadership team. Part of the message is that this is a schoolwide movement,” Pipes said.

ARI suggests that coaches do a walk-through in every teacher’s classroom once a month. That may mean that the coach is doing several walk-throughs on some days.

In the ideal situation, the classroom walk-through grows out of the regular data meetings that occur at each ARI school. In those meetings, the reading coach and grade-level teachers look at data for students in that grade. Together, they identify a struggling reader and the teacher describes her efforts to improve the child’s reading. “Often, she says she’s tried everything she can think of to help Johnny. That’s a signal that this is a good prospect for a walk-through,” Pipes said.

In that situation, Johnny and his learning are the focus of the walk-through. “It shouldn’t be like we’re hovering over Johnny. We talk about touching all four walls when we’re in a room. We don’t want the child to be aware that we’re looking at him. The kids become very accustomed to having adults in the room so often they’re not really paying that much attention to us,” she said.

The walk-through tells the coach a great deal about how she can support the teacher. “It’s a safe conversation if you’re talking about a student and his learning,” Pipes said. ■
Walk-Through Plan

Preparation meeting

*Time: 30 minutes.*

- Assemble members of the walk-through team.
- The principal identifies the focus for the walk-through, the classrooms that will be visited, and why those have been chosen for visits.
- The principal invites team members to identify evidence that would support the focus. One team member records responses on a display board.
- Determine which team member will look for each type of evidence.
- Distribute feedback forms to each member.

Walk-through

*Time: 3-5 minutes per classroom.*

- All team members enter the classroom at the same time. Team members do not speak to each other during their time in the classroom.
- Team members sit at the back of the classroom unless they have a specific assignment to speak to students or examine student work.
- Team members make notes about their assigned area. If appropriate, team members may want to sketch out a map of the classroom that indicates the location of a piece of evidence they observed.
- At the end of the agreed-upon time, all team members leave the classroom together.

Debriefing

*Time: 45 minutes.*

- Walk-through team members assemble in the principal’s office or other agreed-upon meeting place.
- Each visitor speaks about his or her observations. They provide specific evidence as well as attempt to present an overview of what they saw.
- Together, the team members identify trends, areas of strength, and areas that need improvement.
- Drawing on their own experience and knowledge, the visitors make suggestions about how to strengthen areas that need improvement.
- The principal makes notes on the discussion and collects the feedback forms. The principal will decide the best way to provide information back to the teachers whose classrooms were visited.
Walk-Through Individual Feedback Form

Date

Focus Question:

Evidence that supports the focus. *We saw ...*

Evidence that was missing. *We expected to see but did not see ...*

Evidence that was working against the focus. *We saw evidence that contradicts the focus ...*

Adapted from the work of Perry and Associates. For more information about their work, contact George Perry, 781-934-6294 (telephone or fax) or e-mail info@perryandassociatesinc.com.
Walk-Through Group Feedback Form

Date

Focus Question:

Evidence that supports the focus. We saw ...

SPECIFIC EVIDENCE THAT WAS OBSERVED

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3.

4.

5.

Continued on next page

"Often, the physical setup of the room will cause you to be a distraction. If the door places you at the front of the room, quickly walk to the back of the room."


Adapted from the work of Perry and Associates. For more information about their work, contact George Perry, 781-934-6294 (telephone or fax) or e-mail info@perryandassociatesinc.com.
Evidence that was missing. *We expected to see but did not see ...*

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Evidence that was working against the focus. *We saw evidence that contradicts the focus ...*

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SPECIFIC EVIDENCE THAT WAS OBSERVED

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“You must clarify for teachers that they are to ignore you and carry on with their work whenever you walk into the room, unless you specifically ask for their attention. … You cannot observe teachers who are engaged with the observers.”

— Carolyn Downey, 
resources / walk-throughs

“By the numbers”
Margery Ginsberg, Journal of Staff Development, Spring 2001

This article describes the Data in a Day process as the author has used it to collect information about classroom practices that support student motivation. Available to NSDC members in the members-only area of the NSDC web site, http://members.nsdc.org.

Classroom Walk-Throughs
Margery Ginsberg, in Powerful Designs for Professional Learning, Chapter 8, edited by Lois Brown Easton

This chapter presents a rationale for doing walk-throughs as well as describing the steps for a successful walk-through. NSDC, 2004. Available through the NSDC Online Bookstore, http://store.nsdc.org. Item #B248.

“Seeing through new eyes”
Joan Richardson, Tools for Schools, October/November 2001

This issue of the newsletter is devoted to a description of walk-throughs. Available to NSDC members in the members-only area of the NSDC web site, http://members.nsdc.org.

Three-Minute Classroom Walk-Through
Carolyn Downey, Betty Steffy, Fenwick English, Larry Frase, and William Poston

This book provides a detailed plan for doing a three-minute classroom walkthrough that is well-supported with a study of the relevant research. Corwin Press, 2004.

“Walk-throughs provide stepped-up support”
Corrie Ziegler, JSD, Fall 2006

This article describes how teachers in Edmonton, Alberta, moved from a culture of isolation to one of collaboration using instructional walk-throughs. Available to NSDC members in the members-only area of the NSDC web site, http://members.nsdc.org.
Snapshots of learning

Classroom walk-throughs offer picture of learning in schools

By Joan Richardson

Nadia Carlson* steps into an elementary classroom and pauses at the back of the room. Her focus today is to observe exactly what students are doing. She scans each cluster of desks, making notes about the children who are engaged in the lesson and those who are not. She quickly dips down and quietly asks one student what she is learning. Just as smoothly as she has moved into the room, Carlson slips out the door five minutes later.

Classroom walk-throughs are not traditional classroom observations. They are shorter, more focused snapshots of learning in a single classroom in order to assist one teacher or across a variety of classrooms in order to create a bigger picture of learning in a school. Walk-throughs are known by many names — walkabouts, instructional walks, learning walks, data in a day. Regardless of the name, the process is roughly the same: one or more observers spend three to five minutes in a classroom looking at one specific component of instruction. If there are two or more visitors, they debrief with each other for a short time after the walk-through. Finally, whether there is one visitor or several, observations are shared, preferably verbally and soon after the visit, with the teachers whose classrooms have been visited.

Classroom walk-throughs were inspired by “management by walking around,” a concept that took hold in corporate offices in the early 1980s as a way of putting managers in touch with employees. By the mid-’90s, the idea has surfaced in school...
Snapshots of learning: Classroom walk-throughs offer picture of learning in schools

Continued from p. 1

districts as a way for principals to gain a better understanding of what was happening with classroom instruction.

In the last five years, however, the use of walk-throughs has blossomed as teachers have become more comfortable opening the doors of their practice and principals more confident and skilled about offering feedback about teaching and learning. As the practice has become more widespread, the educators who are involved in walk-throughs has also become more diverse. Initially the domain of principals, instructional coaches and classroom teachers now frequently engage in walk-throughs.

“When teachers are involved in doing the walk-throughs, that’s when it really takes off in a school,” said George Perry, an educational consultant who estimates he does about 150 walk-throughs a year in various schools.

Perry calls the walk-through “one of the most powerful tools that educators can use to stimulate conversations around improving teaching and learning.”

Because it’s based on a school’s own daily routine, it’s the most valuable data schools can collect and it’s very valuable professional development,” Perry said.

READINESS FOR WALK-THROUGHS

Principals should introduce walk-throughs only when there is a high level of trust between teachers and administrators.

Teachers tend to be most concerned about whether the information gleaned during a walk-through will remain confidential, especially whether it will be used as part of their annual evaluation.

Information obtained in a walk-through is intended to be used with the teacher who was observed and no one else. That information should not be discussed with other teachers and notes from the observation should not go into a teacher’s file nor be used in an evaluation.

WHAT DOES IT LOOK LIKE

Principals can avoid much of the confusion about how information is used if they ensure in advance that teachers have a good understanding of the process, Perry said.

He recommends engaging the school leadership team in the discussion. “It’s most helpful when the leadership team takes this to other teachers,” he said.

Initially, principals should announce in advance when they will do walk-throughs and what they will be observing. The focus could be the same for the entire school or it could vary for each grade level or department. The focus could remain the same for a week or for an entire month, depending on how frequently the visits will occur.

As walk-throughs have become more popular, more varieties of walk-throughs have emerged.

If a small group of observers is visiting a variety of classrooms, for example, the principal or school coach would assemble the visitors in advance. During that meeting, she would instruct visitors about the focus of the visit and each visitor would be assigned a task. One visitor might be asked to watch for student engagement in the lesson, another to note what is on the wall or the chalkboard, another to observe the materials students are using.

If a principal is visiting a variety of rooms alone, she still should identify the focus of her observations in advance. For example, she might walk through seven 3rd-grade classrooms and look at materials that students are using for the lessons at that moment or she might record whether cooperative learning is occurring.

“I used to tell teachers just to go on as if we’re not there, just ignore us. Now I recommend that visitors introduce themselves to the teacher. This is just a 30-second conversation with the teacher so the teacher can acknowledge that you’re in the classroom,” Perry said.

When a group of observers moves through a variety of classrooms, they should gather at the conclusion to speak about what they have seen. This is presented as factual observations, not just opinions. “Students were working individually,” not “I don’t know why students weren’t working with partners for this assignment.”

The principal or his designee should provide
Continued from p. 2

feedback to the teachers who were observed. Perry recommends that feedback include strengths (“I was impressed by ...”), questions (“I wonder about ...”), and, when appropriate, next steps. (“May I bring some teachers to see how you ...” or “I would like to talk with you about ...”).

**ADMINISTRATIVE WALK-THROUGHS**

Using walk-throughs has changed the atmosphere at Lomax Junior High School in LaPorte, Texas, said principal Leigh Wall. “They put the focus on learning. It’s not about what kids are doing, it’s about what they’re learning,” Wall said.

Wall has been doing walk-throughs at Lomax for two years and typically visits about 20 classrooms a week. So far, the building’s three administrators and the department heads have done all of the walkthroughs. Each administrator focuses on one grade and certain content areas and tries to get into about two dozen rooms each week. Department heads are expected to do one walk-through each week. Each uses a handheld device to keep track of the observations in individual classrooms. Data from the handhelds can later be downloaded into Wall’s computer, where she can quickly assemble information from a variety of classrooms to view a picture of learning in her school.

The LaPorte district provided a three-day training in the process for all principals; Wall paid to have her assistant principals included as well. She later trained teachers at her school in the process, even though only administrators were initially doing the walk-throughs. “I wanted teachers to really understand the process,” she said. During this school year, Wall plans to add teachers to the walk-throughs.

Teachers asked administrators to use the walk-throughs to determine if they were implementing Marzano’s nine instructional strategies. One of their discoveries was that teachers were not implementing the summarizing and notetaking strategy appropriately. Many of them were just having students copy notes from the board, Wall said. As a result of that, teachers requested more staff development in how to appropriately implement that strategy, she said.

**WALK-THROUGHS BY COACHES**

Principals are not the only ones who can do effective classroom walk-throughs. The Alabama Reading Initiative (ARI) has trained more than 1,000 K-3 reading coaches in its process of student targeted classroom walk-throughs. New coaches learn the technique during a summer institute. Novice coaches observe a principal and coach prepare for the walk-through, do an actual walk-through in a demonstration classroom, and finally debrief their observations.

“This gives them a chance to see a walk-through in action,” said Georgina Pipes, who coordinates the reading coaches statewide.

“We always want a principal and a coach to do these together, although sometimes it might be a school’s whole literacy leadership team. Part of the message is that this is a schoolwide movement,” Pipes said.

ARI suggests that coaches do a walk-through in every teacher’s classroom once a month. That may mean that the coach is doing several walk-throughs on some days.

In the ideal situation, the classroom walk-through grows out of the regular data meetings that occur at each ARI school. In those meetings, the reading coach and grade-level teachers look at data for students in that grade. Together, they identify a struggling reader and the teacher describes her efforts to improve the child’s reading. “Often, she says she’s tried everything she can think of to help Johnny. That’s a signal that this is a good prospect for a walk-through,” Pipes said.

In that situation, Johnny and his learning are the focus of the walk-through. “It shouldn’t be like we’re hovering over Johnny. We talk about touching all four walls when we’re in a room. We don’t want the child to be aware that we’re looking at him. The kids become very accustomed to having adults in the room so often they’re not really paying that much attention to us,” she said.

The walk-through tells the coach a great deal about how she can support the teacher. “It’s a safe conversation if you’re talking about a student and his learning,” Pipes said.
Walk-Through Plan

**Preparation meeting**

*Time: 30 minutes.*

- Assemble members of the walk-through team.
- The principal identifies the focus for the walk-through, the classrooms that will be visited, and why those have been chosen for visits.
- The principal invites team members to identify evidence that would support the focus. One team member records responses on a display board.
- Determine which team member will look for each type of evidence.
- Distribute feedback forms to each member.

**Walk-through**

*Time: 3-5 minutes per classroom.*

- All team members enter the classroom at the same time. Team members do not speak to each other during their time in the classroom.
- Team members sit at the back of the classroom unless they have a specific assignment to speak to students or examine student work.
- Team members make notes about their assigned area. If appropriate, team members may want to sketch out a map of the classroom that indicates the location of a piece of evidence they observed.
- At the end of the agreed-upon time, all team members leave the classroom together.

**Debriefing**

*Time: 45 minutes.*

- Walk-through team members assemble in the principal’s office or other agreed-upon meeting place.
- Each visitor speaks about his or her observations. They provide specific evidence as well as attempt to present an overview of what they saw.
- Together, the team members identify trends, areas of strength, and areas that need improvement.
- Drawing on their own experience and knowledge, the visitors make suggestions about how to strengthen areas that need improvement.
- The principal makes notes on the discussion and collects the feedback forms. The principal will decide the best way to provide information back to the teachers whose classrooms were visited.

---

**Walk-throughs**

- Provide an opportunity to:
  - Reinforce attention to a focus on instruction and learning in the school's improvement plan.
  - Gather data about instructional practice and student learning to supplement other data about school and student performance.
  - Stimulate collegial conversation about teaching and learning through asking questions about what evidence is and isn’t observed.
  - Learn from other participants through observations, questions, experiences, and perspectives.
  - Deepen understandings and practices by continuous feedback.

*Source: Perry and Associates.*
Walk-Through Individual Feedback Form

Make enough copies of this page so each visitor has one copy for every classroom he or she will visit.

All of the individual forms should be returned to the principal at the end of the walk-through.

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Evidence that supports the focus. *We saw ...*

Evidence that was missing. *We expected to see but did not see ...*

Evidence that was working against the focus. *We saw evidence that contradicts the focus ...*

Adapted from the work of Perry and Associates. For more information about their work, contact George Perry, 781-934-6294 (telephone or fax) or e-mail info@perryandassociatesinc.com.
Walk-Through Group Feedback Form

Date

Focus Question:

Evidence that supports the focus. We saw ...

SPECIFIC EVIDENCE THAT WAS OBSERVED

1.

2.

3.

4.

5.

Continued on next page

“Often, the physical setup of the room will cause you to be a distraction. If the door places you at the front of the room, quickly walk to the back of the room.”


Adapted from the work of Perry and Associates. For more information about their work, contact George Perry, 781-934-6294 (telephone or fax) or e-mail info@perryandassociatesinc.com.
## Evidence that was missing

*We expected to see but did not see ...*

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## SPECIFIC EVIDENCE THAT WAS OBSERVED

1.  

2.  

3.  

4.  

5.  

## Evidence that was working against the focus

*We saw evidence that contradicts the focus ...*

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## SPECIFIC EVIDENCE THAT WAS OBSERVED

1.  

2.  

3.  

4.  

5.  

“*You must clarify for teachers that they are to ignore you and carry on with their work whenever you walk into the room, unless you specifically ask for their attention. ... You cannot observe teachers who are engaged with the observers.*”

resources / walk-throughs

“By the numbers”
Margery Ginsberg, *Journal of Staff Development*, Spring 2001

This article describes the Data in a Day process as the author has used it to collect information about classroom practices that support student motivation. Available to NSDC members in the members-only area of the NSDC web site, http://members.nsdc.org.

Classroom Walk-Throughs
Margery Ginsberg, in *Powerful Designs for Professional Learning*, Chapter 8, edited by Lois Brown Easton

This chapter presents a rationale for doing walk-throughs as well as describing the steps for a successful walk-through. NSDC, 2004. Available through the NSDC Online Bookstore, http://store.nsdc.org. Item #B248.

“Seeing through new eyes”
Joan Richardson, *Tools for Schools*, October/November 2001

This issue of the newsletter is devoted to a description of walk-throughs. Available to NSDC members in the members-only area of the NSDC web site, http://members.nsdc.org.

Three-Minute Classroom Walk-Through
Carolyn Downey, Betty Steffy, Fenwick English, Larry Frase, and William Poston

This book provides a detailed plan for doing a three-minute classroom walkthrough that is well-supported with a study of the relevant research. Corwin Press, 2004.

“Walk-throughs provide stepped-up support”
Corrie Ziegler, *JSD*, Fall 2006

This article describes how teachers in Edmonton, Alberta, moved from a culture of isolation to one of collaboration using instructional walk-throughs. Available to NSDC members in the members-only area of the NSDC web site, http://members.nsdc.org.
Learning walk

**Purpose:** To extend school leadership team members’ own learning of what they currently know about the content focus and what they can identify when observing in a classroom. Eventually, all teachers should be able to use the tool to engage in learning walks to extend their own learning about a specific program, such as components of a reading program.

**Time:** 10 to 15 minutes per classroom and 15 to 30 minutes for culminating group reflection.

**Materials:** A copy of the learning walk for each observer for each classroom to be observed, clipboard or hard surface, and a pencil and highlighter.

**DIRECTIONS**

1. Use the template to develop a learning walk form based on the content of what teachers are learning and implementing in their classrooms, such as specific instructional strategies being used (e.g. making connections, reciprocal teaching).

2. Limit the number of team members per classroom observation to three or four to avoid being too disruptive.

3. Review the components of a learning walk, and set specific norms for the visits (i.e. don’t interrupt or disturb teaching and learning, don’t assist struggling students).

4. Select two to three classrooms at the same grade level/subject area to visit, and arrange with the teachers for the day and time of the learning walk.

5. Complete as much of the form as possible before the classroom visit, such as the grade level, time, date, and day of the week.

6. During the observation, record what is on the walls, what the teacher and students are saying, materials they are using, what materials are available, tasks students are engaged in. Fill in the learning walk form based on the observation.

7. After completing all classroom visits, gather in a quiet space away from classrooms to reflect on observers’ own learning, and answer the four questions on the second page of the form.

8. Analyze the data for trends. Use the results to further plan and monitor progress.
## Learning walk

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<th>Grade level:</th>
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<tr>
<th>Learning target:</th>
<th>❑ Written - visible</th>
<th>❑ Verbalized</th>
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<th>Target strategy:</th>
<th>Target skill:</th>
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### Day One
- ❑ Share literature
- ❑ Phonemic awareness
- ❑ Whole phonics lesson
- ❑ Spelling lesson
- ❑ Group time
- ❑ Build background
- ❑ Listening comprehension lesson

### Day Two
- ❑ Share literature
- ❑ Phonemic awareness
- ❑ Whole phonics lesson
- ❑ Spelling lesson
- ❑ Group time
- ❑ Build background
- ❑ Speaking and listening

### Day Three
- ❑ Share literature
- ❑ Phonemic awareness
- ❑ Whole phonics lesson
- ❑ Spelling lesson
- ❑ Build background
- ❑ Story vocabulary
- ❑ Comprehension
- ❑ Group time
- ❑ Fluency

### Day Four
- ❑ Share literature
- ❑ High-frequency words
- ❑ Whole phonics lesson
- ❑ Spelling lesson
- ❑ Group time
- ❑ Fluency

### Day Five
- ❑ Share literature
- ❑ High-frequency words
- ❑ Whole phonics lesson
- ❑ Spelling lesson
- ❑ Group time

### Grouping arrangement for teaching:
- ❑ Whole group
- ❑ Small group
- ❑ Individual

### Materials being used:
- ❑ Teacher edition
- ❑ Leveled readers
- ❑ Practice book

### Assessments being used:
- ❑ Fresh reads for differentiated test practice
- ❑ Weekly selection tests
- ❑ Monitoring progress: Retelling
- ❑ Monitoring progress: Word reading
- ❑ Monitoring progress: Check fluency
- ❑ Monitoring progress: Sentence reading
- ❑ Monitoring progress: Fluency and comprehension

### Source:
Norwalk (IA) Community School District.
REFLECTION QUESTIONS

1. What did we learn about the overall implementation of the reading/language arts program (e.g. skill and strategy being taught; learning target(s); focus for the day – Day One, etc.; type of grouping; materials being used; assessments being given or results being used to guide instruction; target skill and strategy for the week)?

2. What were students learning?

3. How was the curriculum map being used?

4. What questions do we have about implementation of the reading/language arts program?

Source: Norwalk (IA) Community School District.
Steps to your own evaluation

This tool is structured to help evaluation practitioners apply an eight-step process for planning, conducting, and reporting their impact evaluations. The tool will help evaluators make essential decisions for impact evaluations of professional learning programs. We invite you to use this tool to begin your own evaluations.

— Joellen Killion, NSDC Deputy Executive Director

Questions to ask as you begin

1. What is the purpose of this evaluation?

2. Who are the primary users of the evaluation results?

3. What is their intended plan for using the results?

**Step 1: Assess evaluability.**

1. **What are the program’s goals?**
   
   Are they plausible, student-focused, and results-oriented?  
   ![Yes] ![No]

2. **What are the program’s objectives?**
   
   Are they measurable?  
   ![Yes] ![No]
   Do they specify the intended change (knowledge, attitude, skill, aspiration, behavior)?  
   ![Yes] ![No]

3. **Have the standards for acceptable performance been established for all the targeted participants and clients?**  
   ![Yes] ![No]

4. **What are the assumptions upon which the program is based and that make up the program’s theory of change?**
   
   Has the theory of change been created?  
   ![Yes] ![No]

5. **What is its logic model? In other words, what are the inputs, activities, initial outcomes, intermediate outcomes, and intended results of this program?**
   
   Has the logic model been created?  
   ![Yes] ![No]

6. **Do the program’s theory of change and logic model make sense?**  
   ![Yes] ![No]

7. **Do key stakeholders understand the program’s theory of change?**  
   ![Yes] ![No]

8. **Is this evaluation worth doing?**  
   ![Yes] ![No]

Step 2: Formulate evaluation questions.

1. What are the evaluation questions?

   Program need:
   
   Program design:
   
   Program implementation:
   
   Program impact:
   
   Multiple use:

2. How well do the evaluation questions reflect the interests of the primary users of the evaluation results? (Circle your response. 1 = Not well, 10 = Very well.)

   1  2  3  4  5  6  7  8  9  10

3. How well do the evaluation questions align with the program's goals and purpose of the evaluation? (Circle your response. 1 = Not well, 10 = Very well.)

   1  2  3  4  5  6  7  8  9  10

4. Are the evaluation questions:
   a. Reasonable?
   b. Appropriate?
   c. Answerable?
   d. Specific, regarding measurable or observable dimensions of program success or performance?
   e. Specific, regarding the measure of program performance?

   □ Yes  □ No
   □ Yes  □ No
   □ Yes  □ No
   □ Yes  □ No
   □ Yes  □ No

Step 3: Construct the evaluation framework.

1. **Determine evaluator.**
   Who will conduct the evaluation?
   - Internal evaluator
   - External evaluator
   - Combination

   Does the designated evaluator have the knowledge, skills, and resources to conduct the evaluation?  
   - Yes  
   - No

2. **Decide how to answer evaluation question(s).**
   What are the key constructs (terms such as student achievement, improvement, increase, professional development) that will be measured? How have they been defined so that they are clear and specific?

   Does the evaluation question require making a comparison to determine impact?  
   - Yes  
   - No

   If so, what are possible comparison groups?

   Which is the most appropriate comparison group for this evaluation?
   - Cohort
   - Individual
   - Group
   - Panel
   - Generic

3. **Create data plan.**
   Who or what is expected to change as a result of this staff development program?

Define what types of changes are expected as a result of this staff development program in the identified target audiences or organizational structures.

**Knowledge:**

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**Attitudes:**

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**Skills:**

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**Aspirations:**

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**Behavior:**

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What data can provide evidence that the changes intended have occurred?

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What data collection methodology is most appropriate for the needed data?

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From whom or what will the data be collected?

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What are other possible sources of data to provide evidence of the intended change?

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How essential is it to have multiple data sources for this evaluation? *(Circle your response. 1 = Not essential, 10 = Very essential.)*

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When will the data be collected?

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Where will the data be collected?

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4. **Determine cost.**
   Are needed resources including time, fiscal resources, and personnel available to conduct this evaluation? □ Yes □ No

   If resources are not adequate, what aspects of the evaluation plan can be modified without compromising the integrity of the evaluation?

   □ Yes □ No

   If resources are inadequate, how will the evaluation be affected?

   □ Yes □ No

   Is the evaluation worth doing? □ Yes □ No

**Step 4: Collect data.**

1. Have the instruments and procedures for data collection been field tested? □ Yes □ No

2. What revisions are necessary?

   □ Yes □ No

3. How will data collectors be trained?

   □ Yes □ No

4. After early data collection, do any data seem redundant? □ Yes □ No

   What are the advantages and disadvantages of continuing to collect these data?

   □ Yes □ No

   Is it appropriate to continue collecting these data?

   □ Yes □ No

5. After early data collection, what data seem to be missing?

____________________________________________________________________________________

Is it essential to collect these missing data?  □ Yes  □ No

How will a new data collection methodology be implemented to collect these data?

____________________________________________________________________________________

6. What processes have been established to manage data collection and transfer?

____________________________________________________________________________________

7. What processes are established to ensure the safekeeping and integrity of the data?

____________________________________________________________________________________

8. If collecting quantitative data, what kinds of scores are needed to accurately reflect the data and to answer the evaluation questions?

____________________________________________________________________________________

Step 5: Organize and analyze data.

1. How will data be sorted, grouped, and arranged before analysis?

____________________________________________________________________________________

2. What method of data analysis is needed to answer the evaluation question?
   □ Univariate analysis
   □ Multivariate analysis

3. How will data be displayed to facilitate interpretation and understanding?

4. How will stakeholders be involved in the data analysis process?

**Step 6: Interpret data.**

1. What do these data mean?

2. What findings (interpretations/claims) can be made from these data?

3. How well supported are the findings? *(Circle your response. 1 = Weak, 10 = Strong.)*

4. Does this evaluation support claims of attribution or contribution?  
   - Yes  
   - No

5. Does this program have merit or worth?  
   - Yes  
   - No

6. What recommended actions can help the program stakeholders improve their programs and program impact?

Step 7: Disseminate findings.

1. Will the evaluation reports be interim or final evaluation reports?  
   - Interim  
   - Final

2. Who are the primary users of the evaluation report?

   ________________________________________________________________

3. What components do the primary users want included in the evaluation report?

   ________________________________________________________________

4. What format for reporting the results is most appropriate for the primary users of the evaluation report?

   ________________________________________________________________

5. What other audiences are likely to want some version of the evaluation report?

   ________________________________________________________________

6. What format for reporting the results is appropriate for other audiences?

   ________________________________________________________________

Step 8: Evaluate the evaluation.

1. How will the effectiveness of the evaluation be assessed?

2. What questions will guide the evaluation of the evaluation?

   **Resources:**

   **Design:**

   **Findings:**

   **Reporting:**

   **Evaluator:**

3. What stakeholders will be involved in the evaluation of the evaluation? How will they be involved?

## Evaluation framework

### Program goal:

<table>
<thead>
<tr>
<th>Measurable objectives/changes</th>
<th>Evaluation questions</th>
<th>Data/evidence needed</th>
<th>Data source</th>
<th>Data collection method</th>
<th>Data analysis method</th>
<th>Timeline</th>
<th>Responsible person(s)</th>
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<tbody>
<tr>
<td></td>
<td>Formative and summative</td>
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Evaluation framework: A sample

<table>
<thead>
<tr>
<th>Evaluation questions</th>
<th>Data/evidence needed</th>
<th>Data source</th>
<th>Data collection method</th>
<th>Data analysis method</th>
<th>Timeline</th>
<th>Responsible person(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>How frequently are teachers integrating technology into their mathematics lessons?</strong></td>
<td>Teacher behavior</td>
<td>Teacher self-report</td>
<td>Survey</td>
<td>Count</td>
<td>Administer survey in May</td>
<td>Technology coordinator</td>
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<tr>
<td></td>
<td></td>
<td>Principal observations</td>
<td>Logs</td>
<td>Count with description</td>
<td>Principal observations October through May</td>
<td>Principal</td>
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<td></td>
<td></td>
<td>Lesson plans</td>
<td>Artifacts</td>
<td>Quality analysis</td>
<td>Collect artifacts in February and May</td>
<td>Technology coordinator</td>
</tr>
<tr>
<td><strong>How do students use technology in mathematics?</strong></td>
<td>Student behavior</td>
<td>Student self-report</td>
<td>Interviews</td>
<td>Patterns</td>
<td>Conduct student interviews in May</td>
<td>Graduate students</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Classroom assignments</td>
<td>Artifacts</td>
<td>Quality analysis</td>
<td>Collect artifacts in February and May</td>
<td>Technology coordinator</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Samples of student work</td>
<td>Artifacts</td>
<td>Quality analysis</td>
<td>Collect artifacts in February and May</td>
<td>Technology coordinator</td>
</tr>
<tr>
<td><strong>Is student achievement in mathematics increasing as expected?</strong></td>
<td>Student knowledge and skills</td>
<td>State test</td>
<td>Artifacts</td>
<td>Comparing</td>
<td>April</td>
<td>District testing coordinator</td>
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<td>Classroom tests</td>
<td>Artifacts</td>
<td>Comparing</td>
<td>October-June</td>
<td>Teachers</td>
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<td>Student grades</td>
<td>Artifacts</td>
<td>Comparing</td>
<td>June</td>
<td>District testing coordinator</td>
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</tbody>
</table>

# Logic model template

For Collaborative Learning Team Planning and Evaluation

<table>
<thead>
<tr>
<th>Inputs</th>
<th>Actions</th>
<th>Initial outcomes</th>
<th>Intermediate outcomes</th>
<th>Results</th>
</tr>
</thead>
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STANDARDS ASSESSMENT INVENTORY

Recommendations: Data Standard

Tools to support **COMPREHENSIVE** strategies
PROTOCOLS: A facilitator’s best friend

By Lois Brown Easton

Protocol. Hearing the word makes some people think of formal dinners or White House etiquette. Others might think of the Kyoto Protocol and treaties among countries. For scientists, the term describes an exact procedure, for physicians, a practice they follow. In the field of education, protocols are simply an agreed upon set of guidelines for conversation. They are a code of behavior, a modus operandi, for groups to use when exploring ideas.

Educating students for a complex world requires powerful professional learning, such as action research, lesson study, and tuning protocols (Easton, 2008), that helps educators reach the next level of excellence in their practice. Used within collaborative groups, protocols can help educators change the culture of school so that all adults and students improve their learning.

CHALLENGING CONVERSATIONS

The National School Reform Faculty (NSRF), whose members developed, refined, and share many of the protocols in use today, says that the structure of a protocol permits “a certain kind of conversation ... which people are not in the habit of having” (www.nsrfharmony.org).

By following accepted parameters for conversation, group members can have very focused conversations. Protocols help educators look at student work, artifacts of educator practice, texts relating to education, or problems and issues that surface during educators’ day-to-day lives. The result of using protocols to structure the dialogue within these parameters is an increased and shared understanding among group members that can lead to deeper understanding and action. Protocols also may push people into places they

Continued on p. 2
Continued from p. 1

have avoided: real issues that, resolved, can make the difference between a school that succeeds and a school that fails the students it serves.

The newly released “Professional Learning in the Learning Profession: A Status Report on Teacher Professional Development in the U.S. and Abroad,” by Linda Darling-Hammond and a team of researchers at Stanford University’s Educational Leadership Institute, says that teachers need in-depth, sustained, coherent, high-quality professional development to be able to address the daily challenges of teaching and improve student learning. The study points out that teachers in nations whose students consistently outperform the U.S. on international standardized exams routinely engage in professional learning that requires them to collaborate to create and review lessons together, observe one another teaching, offer each other feedback, and assist in selecting and developing curriculum and assessments.

The study from the Stanford team is the first phase of NSDC’s “Multiyear Study of the State of Professional Learning in the U.S.,” supported by the Bill & Melinda Gates Foundation, the MetLife Foundation, and The Wallace Foundation. The study’s purpose is to challenge educators to find ways to improve their professional learning. Protocols can be tools that allow educators to do just that.

OUT OF THE CAVE

Protocols can help bring teachers out of isolation. Accustomed to their side-by-side caves, many fear exposing to peers their classroom practices by sharing strategies and student work. Protocols help such educators feel enlightened by providing the structures and support for difficult conversations.

Most protocols are facilitated in some way, either by an outsider or a group member. Group members also may share facilitator responsibilities. The facilitator often structures the conversation so that discussion deepens as participants take turns listening and speaking.

Effective protocols call upon participants to agree to a set of common assumptions. For example, some groups might agree that:

- We all want to get better in the work we do as educators.
- We all want to be kind and courteous, and to accomplish this, we also need to be thoughtful, insightful, and provocative.
- We need to remember that we are “in this together.” Although we may be focusing on one teacher’s work, what we are doing will reach far beyond that one classroom and the work that teacher is sharing. We are exploring our work as educators, and the outcome will be improved learning for all of us and our students.

These assumptions lead to specific behaviors participants agree on so that members do not feel attacked and the conversation is substantive and provocative without being hurtful to any individual.

Protocols allow groups to have a professional conversation, one that might go awry if allowed to proceed either through inconsequential meanderings (Aunt Felicity used to do that very thing when she was a teacher — was that in Ohio or Iowa? What a character she was!) or unfocused battles where one person’s comment is met by another’s objection. What ensues is a verbal pro and con, attack and counterattack, argument and counterargument. No one else can get a word in nor, after awhile, do they want to. The conversation literally derails, with wreckage everywhere, particularly the ideas of those who never got to speak. Deep understanding seldom occurs when a conversation turns into a wreck.

Some educators may prefer professional development in the form of “show ’n’ tell” sharing, “make ’n’ takes” for their next class activity, or speakers with thrilling ideas that may not ever make it to practice. Protocols are effective tools for deepening the conversation so more meaningful professional learning can occur, resulting in changes in practice so that all students learn.

As the study by the Stanford team tells us, meaningful collaboration among teachers is the key to higher student achievement. Protocols give form to educator collaboration.
SOME BASICS OF PROTOCOLS

**WHO:** Job-alike groups (grade levels, for example) or mixed-job groups (cross-disciplinary groups) can engage in protocols, as can administrators when on equal footing with other participants. Groups can meet regularly, such as in professional learning communities, or form just for a protocol. Groups need a facilitator in early stages; mature groups can facilitate themselves.

**WHAT:** The protocols in this issue help groups look at a text, such as “Professional Learning in the Learning Profession: A Status Report on Teacher Development in the U.S. and Abroad.” They also may be used to examine student work and educators’ practices or to understand problems or issues.

**WHEN AND WHERE:** Most protocols require about an hour. Protocols, like other forms of powerful professional learning, are best when school-based, but can also bring together teachers from throughout a district or across districts.

**WHY:** Protocols can help individuals calibrate notions of quality, learn new strategies for teaching, become better learners themselves, and plan and revise the work they do. Protocols can help schools focus on excellence, address issues and problems, and improve both the daily work of learning and long-term work related to vision and mission.

**HOW:** Consider time already set aside for professional learning or meetings, such as faculty, grade-level, or department meetings. Use other means to convey information about traditional business items. Use protocols for learning during district-allotted professional development days, or shorten or extend the school day for professional development time. The study revealed that teachers in high-performing countries have regular time each day for such collaboration.

**TO BEGIN:** As with most innovations, start small. Start with people who are “early adopters,” the ones who are like scouts for a wagon train, forging new trails. Invite them to read the study, for example, and to react to it using one of the protocols in this newsletter. Provide or ask someone to provide refreshments. Let others know what you are doing, and ask for time to share what your group is learning.
Examining student work has always been part of a teacher’s job. But, in recent years, that practice has moved from being a solitary activity to being a more collaborative effort in which teachers learn about their practice by sharing with and listening to colleagues.

In the hierarchy of professional development practices, examining student work would rank near the top because of the way that teachers work together to sharpen their practice to improve student learning.

Select a strategy for examining student work.

As various organizations have become interested in the strategy of examining student work, different protocols have been developed to guide that work. A protocol is simply a structure and guide for a group’s conversation regarding a piece of student work. The protocols are designed to provide a safe place for teachers to share their students’ work while also encouraging an honest exchange among participants.

Every protocol has been designed to emphasize a different aspect of evaluation. Some, like the Collaborative Assessment Conference, emphasize describing the student work. Others, like the Coalition of Essential Schools’ Tuning Protocol, emphasize evaluative feedback from participants. Selecting a design that fits the culture of a school is a crucial factor in successfully using that design.

The tools on Pages 3, 4, 5, and 6 provide various options for examining student work. School teams may want to practice several options before identifying one that best fits their school. Schools may also discover that one strategy works best for one team while another team prefers a different strategy.

To learn more about practical options, visit the Learning About Student Work web site maintained by the Annenberg Institute for School Reform (www.lasw.org). That web site includes a synopsis of about a dozen strategies for examining stu-
Strategies for examining student work together

Continued from Page One

tudent work and links to learn more about each of them.

Opt for anonymity.

To introduce the process and to help teachers become comfortable with the concept, consider doing one or two practice sessions.

Bring in student work that does not belong to any of the participants. Visit the Learning about Student Work web site (www.lasw.org) and look for samples of student work that could be used for this practice session. Or, tap colleagues at another school for samples of student work.

“Teachers are often quite shy about bringing their own student work to the table. They feel very apologetic. They feel that others might castigate them for the errors, for work that’s not perfectly done,” said Lois Easton, director of professional development at the Eagle Rock School and Professional Development Center in Estes Park, Colo. Easton does extensive work with tuning protocols developed by the Coalition of Essential schools.

Practicing on student work in which they have no investment can help teachers feel more comfortable about the conversations they might hear regarding the work of their students.

Select a project, task, or assessment that addresses one of the schoolwide goals for student performance.

The task should require that students produce something that demonstrates what they have learned. This could be a long-term project or a short-term task. Whatever the final result, the student product or performance should be something significant, not a worksheet, quiz, or test.

Geneva City Schools in Geneva, N.Y., wanted students to do more writing in math as a way to improve their ability to explain how they solved math problems. So teachers assembled by grade level to study students’ math journals, said Jody Hoch, now director of mathematics for the Rush-Henrietta Central School District in upstate New York.

Collect documents that will help the study group participants understand the project or task.

These might include the initial assignment, scoring/grading criteria (or rubrics), objectives of the assignments, exemplars, models, timelines, checklists, etc. Think about other key information participants will need to understand the project or task and that can be shared succinctly.

The presenting teacher should be prepared to briefly describe the context of the student work. The documents listed above would be used to illustrate his or her points during that presentation.

Select samples of student work that demonstrate authentic student responses to the project or task.

Choose two or three samples to provide contrast. Teachers often find that a sample of work that shows promise but is not a stellar response to the assignment provides the best basis for feedback. Work selected may include final products, drafts, reflections, etc.

The Annenberg Institute for School Reform suggests a variety of ways to select student work samples:

- Written work (or artwork) from several students in response to the same assignment.
- Several pieces of work from one student in response to different assignments.
- One piece of work from a student who completed the assignment successfully and one piece from a student who was not able to complete the assignment successfully (same assignment for both).
- Work done by students working in groups (include work of at least two groups that were given the same assignment).
- Videotape, audio tape, and/or photographs of students working, performing, or presenting their work. This might be particularly useful for very young children who haven’t yet acquired adequate written communication skills.

Watch the details.

If possible, remove student names from the samples.

Make enough copies of the student work so that each participant has his or her own copy. Ensure that the facilitator knows in advance about any unique types of student work, such as sculpture or an entire portfolio of work, that are not easily duplicated. That will enable the facilitator to adapt the format accordingly.

If the student work is a video, a five-minute clip is usually sufficient to demonstrate the work.

Prepare a focusing question.

The presenting teacher should prepare a “focusing question” about the work that addresses a real interest or concern. Questions typically focus on either inputs (the assignment, teacher’s support of student performance) or outputs (quality of student work, teacher’s assessment of the work).

A broader question may elicit a wide range of feedback — and this may be desirable. For example: How can I support higher quality presentations? (input) What are the strengths and weaknesses you see in the student presentations? (output)

A narrower question might provide the kinds of feedback the teacher finds most useful. For example: How can my prompt bring out more creativity in the students’ work? (input) What evidence is there in the student work of mathematical problem solving? (output)

Remember, even with a narrower focus question, participants will offer a range of feedback — on and off the question.

See the February 2001 issue of Results to read about the use of “tuning protocols,” one strategy for examining student work.
When my article, “The Age of Our Accountability”, was first published in the fall 1998 Journal of Staff Development, we were just entering a new era of accountability. Today and for the foreseeable future, accountability is our way of life. The No Child Left Behind Act (U.S. Congress, 2001) demands that only strategies and methods “proven effective by the standard of scientifically based research should be included in school reform programs” and that programs be evaluated based on specific measures of student learning (U.S. Department of Education, 2002, p. 2).

Surprisingly, some professional development leaders still seem oblivious to the demands of accountability. In their innocence, they presume that their professional development programs are state-of-the-art efforts that turn teachers and school administrators into reflective, brain-based, consensus-seeking, multiple-intelligent capacity builders. They remain naively confident that what they do brings priceless benefits to students, teachers, parents, board members, and
the community at large. Slowly but surely, however, most are recognizing that without strong evidence reflecting those benefits, their very existence may be in jeopardy. A new president, governor, state legislator, superintendent, or board member might come along who wants to know the payoff from the district’s or school’s investment in professional development. If the evidence isn’t there, heads may roll and programs may get axed. To provide evidence in this age of accountability, we must get serious about evaluation (Guskey, 2002a).

Let’s revisit professional development evaluation in the context of accountability by considering three basic questions:

- What is evaluation?
- What are the purposes of evaluation?
- What are the critical levels of professional development evaluation? Finally, we examine the implications of these questions.

WHAT IS EVALUATION?

Just as there are many forms of professional development, there also are many forms of evaluation. While not everyone agrees on the best definition of evaluation, a useful operational definition is: Evaluation is the systematic investigation of merit or worth (adapted from the Joint Committee on Standards for Educational Evaluation, 1994).

The word “systematic” in this definition distinguishes the evaluation process from the multitude of informal evaluation acts in which we consciously engage every day. “Systematic” implies that evaluation in this context is thoughtful, intentional, and purposeful. It’s done for clear reasons and with explicit intent. Although its specific purpose may vary from one setting to another, all good evaluations are organized and deliberate.

Because it’s systematic, some educators mistakenly believe that professional development evaluation is
If the evidence isn’t there, heads may roll and programs may get axed.

appropriate only for formal workshops and seminars, but not for the wide range of other less formal, ongoing, job-embedded professional development activities. Regardless of its form, however, professional development is not a haphazard process. Professional learning is, or should be, purposeful and goal-driven (Schmoker, 2004). The objectives of professional development activities remain clear: to make a difference in teaching, to help educators reach high standards, and ultimately to have a positive impact on students. These objectives apply to workshops and seminars, as well as study groups, action research, collaborative planning, curriculum development, structured observations, peer coaching and mentoring, and individually guided professional development activities. Determining whether the goals of these activities are met or whether progress is being made requires systematic evaluation.

‘Investigation’ means collecting and analyzing appropriate and pertinent information. While no evaluation can be completely objective, the process isn’t based on opinion or conjecture. Investigation requires acquiring specific, relevant, and valid evidence examined through appropriate methods and techniques.

Using “merit or worth” in our definition implies appraisal and judgment. Evaluations are designed to determine something’s value. They help answer questions such as:

• Is this program or activity leading to the intended results?
• Is it better than activities done in the past?
• Is it better than another competing activity?
• Is the professional learning activity worth the costs?

Answers to these questions require more than a statement of findings. They demand an appraisal of quality and judgments of value, based on the best evidence available.

**WHAT ARE THE PURPOSES OF EVALUATION?**

The purposes of evaluation generally are classified in three broad categories: planning, formative, and summative. Most evaluations fulfill all three purposes, although the emphasis on each changes in various stages of the evaluation process. Although this blending of purposes blurs their distinction, differentiating their intent helps clarify our understanding of evaluation procedures (Stevens, Lawrenz, & Sharp, 1995).

**Planning**

Planning evaluation occurs before a program or activity begins, although certain aspects may be continual and ongoing. It gives those involved in program development and implementation a precise understanding of what the program is supposed to accomplish, what procedures will be used, and how success will be determined. Planning evaluation lays the groundwork for all other evaluation activities. While some advocate an “evaluability assessment” prior to planning to determine if a program or activity is “evaluable” (Whooley, Harty, & Newcomer, 2004), most experts contend that planning evaluation done well makes such assessment unnecessary.

Planning evaluation involves appraising a program or activity’s critical attributes, usually on the basis of previously established standards. These include the specified goals, the proposal or plan to achieve those goals, the concept or theory underlying the proposal (a critical attribute in meeting NCLB requirements), the overall evaluation plan, and the likelihood that the plan can be carried out with the time and resources available. In addition, planning evaluation typically includes determining needs, assessing the characteristics of participants, carefully analyzing the context, and collecting relevant baseline information.

Evaluation for planning purposes is sometimes referred to as “preformative evaluation” (Scriven, 1991) and may be thought of as preventive evaluation. It helps decision makers know if efforts are headed in the right direction and likely to produce the desired results. Planning evaluation also helps identify and remedy difficulties that might plague later evaluation efforts. Furthermore, evaluation during the planning stage helps ensure that other evaluation purposes can be met in an efficient and timely manner.

**Formative**

Formative evaluation occurs during the operation of a program or activity. It gives those responsible for the program ongoing information about whether the work is going as planned and whether expected progress is being made. If progress is not as expected, formative evaluation information helps guide necessary improvements (Scriven, 1967).

The most useful formative evaluations focus on the conditions for success. They address issues such as:

• What conditions are necessary for success?
• Have the conditions for success been met?
• Can conditions be improved?

In many cases, formative evaluation is a recurring process that takes place many times throughout the program. Many program developers, in fact, constantly engage in formative evaluation and use the evidence they gather at each step of development and implementation to adjust, modify, or revise the program (Fitzpatrick, Sanders, & Worthen, 2003).

To keep formative evaluations efficient, Scriven (1991) recommends using them as “early warning” evalua-
Summative evaluation takes place at the completion of a program or activity. It provides program developers and decision makers information with which to make judgments about the program's overall merit or worth. Summative evaluations describe what was accomplished, what the consequences were (positive and negative), what the final results were (intended and unintended), and, in some cases, whether the benefits justify the costs (Phillips, 2002).

Unlike formative evaluations that are used to guide improvements, summative evaluations present decision makers with information to make crucial decisions about a program. Should it be continued? Continued with modifications? Expanded? Discontinued? The focus of summative evaluations is the bottom line.

An excellent description of the distinction between formative and summative evaluation is offered by Robert Stake: “When the cook tastes the soup, that’s formative; when the guests taste the soup, that’s summative” (quoted in Scriven, 1991, p. 169).

Unfortunately, many educators associate evaluation only with its summative purposes. Important information that could help guide planning, development, and implementation is often neglected, even though such information can be key in helping a program succeed.

Summative evaluation, although necessary, comes too late to be much help. Thus, while the relative emphasis on planning, formative, and summative evaluation changes through the life of a program or activity, all three are essential to a meaningful evaluation.

**WHAT ARE THE LEVELS OF PROFESSIONAL DEVELOPMENT EVALUATION?**

Planning, formative, and summative evaluation all involve collecting and analyzing information. Effective professional development evaluation requires considering the five critical stages or levels of information shown on page 14. (Guskey, 2000a, 2002a). These five levels are adapted from an evaluation model developed by Kirkpatrick (1959, 1998) for judging the value of supervisory training programs in business and industry.

Kirkpatrick's model, although widely applied, has seen limited use in education because of inadequate explanatory power. While helpful in addressing a broad range of “what” questions, such as “What took place?” and “What were the results?,” many find it lacking for answering “why” questions, such as “Why were practices not implemented?” or “Why were improvements not evidenced?” (Alliger & Janak, 1989; Holton, 1996).

The five levels in this model are arranged hierarchically, from simple to more complex. With each succeeding level, the process of gathering evaluation information requires more time and resources. And because each level builds on the levels before, success at one level is necessary to succeed at higher levels. (See chart on Page 14.)

**Level 1: Participants’ reactions**

The first level of evaluation considers participants’ reactions to the professional development experience. Assessing reactions is the most common form of professional development evaluation and the easiest type of information to gather and analyze.

At Level 1, the questions focus on whether participants liked the experience. Did they feel their time was well-spent? Did the material make sense to them? Were the activities well-planned and meaningful? Was the leader knowledgeable and helpful? Did they find the information useful?

Also important for some professional development experiences are questions related to the context, such as: Was the room the right temperature? Were the chairs comfortable? Was the coffee hot and ready on time? Were the refreshments fresh and tasty? To some, questions such as these may seem silly and inconsequential. But experienced professional developers know the importance of attending to these basic human needs.

Information on participants’ reactions usually is gathered through questionnaires or surveys handed out at the end of a program or activity. These questionnaires typically include a combination of rating-scale items and open-ended response questions that allow participants to provide comments. Because of the general nature of this information, many organizations use the same questionnaire for all professional development activities, regardless of the format.

Some educators refer to these measures of participants’ reactions as “happiness quotients,” insisting that they reveal only the entertainment value of an activity, not its quality or worth. But measuring participants’ initial satisfaction provides information that can help improve the design and delivery of programs or activities in valid ways. In addition, positive reactions from participants usually are a necessary prerequisite to higher level evaluation results.
### Five levels of professional development evaluation

<table>
<thead>
<tr>
<th>EVALUATION LEVEL</th>
<th>WHAT QUESTIONS ARE ADDRESSED?</th>
<th>HOW WILL INFORMATION BE GATHERED?</th>
<th>WHAT IS MEASURED OR ASSESSED?</th>
<th>HOW WILL INFORMATION BE USED?</th>
</tr>
</thead>
</table>
| **1** PARTICIPANTS’ REACTIONS | • Did they like it?  
   • Was their time well-spent?  
   • Did the material make sense?  
   • Will it be useful?  
   • Was the leader knowledgeable and helpful?  
   • Were the refreshments fresh and tasty?  
   • Was the room the right temperature?  
   • Were the chairs comfortable? | • Questionnaires or surveys administered at the end of the session. | • Initial satisfaction with the experience. | • To improve program design and delivery. |
| **2** PARTICIPANTS’ LEARNING | • Did participants acquire the intended knowledge and skills? | • Paper-and-pencil instruments.  
   • Simulations.  
   • Demonstrations.  
   • Participant reflections (oral and/or written).  
   • Participant portfolios. | • New knowledge and skills of participants. | • To improve program content, format, and organization. |
| **3** ORGANIZATIONAL SUPPORT AND CHANGE | • Were sufficient resources made available?  
   • Were problems addressed quickly and efficiently?  
   • Was implementation advocated, facilitated, and supported?  
   • Were successes recognized and shared?  
   • Was the support public and overt?  
   • What was the impact on the organization?  
   • Did it affect organizational climate and procedures? | • Minutes from follow-up meetings.  
   • Questionnaires.  
   • Structured interviews with participants and district or school administrators.  
   • District and school records.  
   • Participant portfolios. | • The organization’s advocacy, support, accommodation, facilitation, and recognition. | • To document and improve organizational support.  
   • To inform future change efforts. |
| **4** PARTICIPANTS’ USE OF NEW KNOWLEDGE AND SKILLS | • Did participants effectively apply the new knowledge and skills? | • Questionnaires.  
   • Structured interviews with participants and their supervisors.  
   • Participant reflections (oral and/or written).  
   • Participant portfolios.  
   • Direct observations.  
   • Video or audiotapes. | • Degree and quality of implementation. | • To document and improve the implementation of program content. |
| **5** STUDENT LEARNING OUTCOMES | • What was the impact on students?  
   • Did it affect student performance or achievement?  
   • Did it influence students’ physical or emotional well-being?  
   • Are students more confident as learners?  
   • Is student attendance improving?  
   • Are dropouts decreasing? | • Student records.  
   • School records.  
   • Questionnaires.  
   • Structured interviews with students, parents, teachers, and/or administrators.  
   • Participant portfolios. | • Student learning outcomes.  
   • Cognitive (performance and achievement).  
   • Affective (attitudes and dispositions).  
   • Psychomotor (skills and behaviors). | • To focus and improve all aspects of program design, implementation, and follow-up.  
   • To demonstrate the overall impact of professional development. |

**SOURCE:** Adapted from *Evaluating Professional Development* by Thomas R. Guskey (Corwin Press, 2000).
collaborate to block change or inhibit advancement (Little, 1990). Recent investigations further show that collaborative efforts sometimes run headlong into enormous conflicts over professional beliefs and practices, conflicts that can impede progress (Achinstein, 2002). Thus even the best planned professional development occasionally yields unanticipated negative consequences. Without information about such unintended outcomes, program developers and decision makers may make inaccurate judgments of a program’s merit or worth. Analyzing Level 2 information provides a basis for improving the content, format, and organization of professional development programs and activities.

LEVEL 3: Organizational support and change

At Level 3, the focus of the evaluation shifts from participants to organizational variables that are vital to the success of the professional development effort. Did the professional activities promote changes that were aligned with the mission of the school and district? Were changes at the individual level encouraged and supported at all levels (Corcoran, Fuhrman, & Belcher, 2001)? Were sufficient resources made available, including time for sharing and reflection (Langer & Colton, 1994)? Were successes recognized and shared? Issues such as these play a large part in the success of any professional development effort.

Organizational factors also can hinder or prevent success, even when individual aspects of professional development are done right (Sparks, 1996). Suppose, for example, that a group of high school educators participates in a professional development program on cooperative learning. Group members gain a thorough understanding of the theory and organize a variety of classroom activities based on cooperative learning principles. After their training, they try implementing these activities in schools where students are graded “on the curve,” according to their relative standing among classmates, and where great importance is attached to selecting the class valedictorian. Organizational policies and practices such as these make learning highly competitive and thwart the most valiant efforts to have students cooperate and help each other learn (Guskey, 2000b).

The lack of positive results in this case doesn’t reflect poor training or inadequate learning, but rather organizational policies that are incompatible with implementation efforts. Problems at Level 3 essentially can cancel the gains made at Levels 1 and 2 (Sparks & Hirsh, 1997). Identifying such conflicts is one reason professional development evaluations must include information on organizational support and change.

Procedures for gathering information at Level 3 differ depending on the goals of the program or activity. They may involve analyzing district or school records, examining the minutes from follow-up meetings, administering questionnaires that tap issues related to the organization’s advocacy, support, accommodation, facilitation, and recognizing change efforts. Structured interviews with participants and district or school administrators also can be helpful. This information is used not only to document and improve organizational support, but also to inform future change initiatives.

LEVEL 4: Participants’ use of new knowledge and skills

Level 4 evaluations include questions such as: Did the new knowledge
and skills that participants learned make a difference in their professional practice? The key to gathering relevant information at this level rests in specifying clear indicators of both the degree and quality of implementation. Unlike at Levels 1 and 2, this information cannot be gathered at the end of a professional development session. Enough time must pass to allow participants to adapt the new ideas and practices to their settings. Because implementation is often a gradual and uneven process, measures of progress may need to be gathered at several time intervals.

Depending on the goals of the program or activity, this information may involve questionnaires or structured interviews with participants and their supervisors. Evaluators might consider participants’ oral or written personal reflections and also might examine participants’ journals or portfolios. The most accurate information typically comes from direct observations, either by trained observers or using video and/or audiotapes. These observations, however, should be kept as unobtrusive as possible (for examples, see Hall & Hord, 1987).

Analyzing this information gives evaluators evidence about the extent to which participants are using the new knowledge and helps professional development leaders restructure future programs and activities to facilitate improved and more consistent implementation.

**LEVEL 5:**

**Student learning outcomes**

Level 5 addresses the bottom line in education: What impact did the professional development have on students? Did educators’ professional learning benefit students in any way? The student learning outcomes of interest will depend, of course, on the goals of that specific professional development program or activity. In addition to the stated goals, the program or activity may result in important unintended outcomes. Suppose, for example, that students’ scores on statewide assessments went up, but so did the dropout rate. Such examples are why evaluations always should include measures of a broad array of student learning outcomes (Joyce, 1993).

Measures of student learning typically include cognitive indicators of performance and achievement, such as assessment results, portfolio evaluations, marks or grades, and scores from standardized tests. But in addition, affective measures (attitudes and dispositions) and psychomotor outcomes (skills and behaviors) may be considered as well. Examples include students’ self-concepts, study habits, school attendance, homework completion rates, and classroom behaviors. Schoolwide indicators such as enrollment in advanced classes, memberships in honor societies, participation in school-related activities, disciplinary actions, and retention or dropout rates might also be considered.

Student and school records provide the majority of such information. Results from questionnaires and structured interviews with students, parents, teachers, and administrators could be included as well. Evaluators use Level 5 information summatively to document a program or activity’s overall impact. But formatively, this information can help guide improvements in all aspects of professional development, including design, implementation, and follow-up. In some cases, information on student learning outcomes is used to estimate the cost effectiveness of professional development, sometimes referred to as “return on investment,” or “ROI evaluation” (Parry 1996; Phillips, 1997; Todnem & Warner, 1993).

**IMPLICATIONS FOR IMPROVEMENT**

Three important implications stem from this model for evaluating professional development. First, each of the five levels is important. Although evaluation at any level can be done well or poorly, convincingly or laughably, the information gathered at each level provides vital data for professional development leaders to improve the quality of professional learning programs and activities.

Second, tracking the program’s effectiveness at one level tells you nothing about the impact of the program at the next. Although success at an early level may be necessary for positive results at the next level, earlier success on its own is not sufficient to cause higher-level success (Cody & Guskey, 1997). Breakdowns can occur at any point along the way. Sadly, few legislators and policy makers recognize the difficulties involved in moving from professional development experiences (Level 1) to improved student learning (Level 5). Most also aren’t aware of the complexity of this process, nor of the time and effort required to build this connection (Guskey, 1997; Guskey & Sparks, 2004).

The third implication, and perhaps the most important, is that in planning professional development to impact student learning, the order of these levels must be reversed. In other words, educators must plan backward (Guskey, 2001a & b, 2003a), starting with the final goals and then working back.

In backward planning, one first considers the student learning outcomes to be achieved (Level 5). For example, is the goal to improve students’ reading comprehension, enhance their skills in problem solving, develop their sense of confidence in learning situations, improve their behavior in class, their persistence in school, or their collaboration with classmates? Critical analyses of rele-
vant data from assessments of student learning, examples of student work, and school records are especially useful in identifying these student learning goals.

The next step is to determine, on the basis of pertinent research, what instructional practices and policies will most effectively and efficiently produce those outcomes (Level 4). Key questions to ask are: What evidence verifies that these particular practices and policies will lead to the desired results? How reliable is that evidence? Does the evidence meet the requirements for being “scientifically based”? Was it gathered in contexts similar to ours? Be particularly mindful of innovations that are more opinion-based than research-based, promoted by people more concerned with what sells than with what works. Before jumping on any educational bandwagon, always make sure that trustworthy evidence validates the selected approach.

Next, consider what aspects of organizational support need to be in place for those practices and policies to be implemented (Level 3). Many valuable improvement efforts fail miserably due to a lack of active participation and clear support from school administrators (Guskey, 2003b). Others prove ineffective because the resources required for implementation were not provided. The lack of time, instructional materials, or necessary technology can severely impede teachers’ attempts to use the new knowledge and skills they acquired through a professional learning experience. Sometimes aspects of the organization actually pose barriers to implementation. A big part of planning, therefore, involves ensuring that organizational elements are in place to support the desired practices and policies.

Then decide what knowledge and skills the participating professionals must have to be able to implement the prescribed practices and policies (Level 2). What must they know and be able to do to successfully adapt the innovation to their specific situation and bring about the sought-after change?

Finally, consider what set of experiences will enable participants to acquire the needed knowledge and skills (Level 1). Workshops and seminars, especially when paired with collaborative planning and structured opportunities for practice with feedback, can be highly effective means of sharing information and expanding educators’ knowledge. Action research projects, organized study groups, and a wide range of other activities all can be effective, depending on the specified purpose of the professional learning experience.

What makes this backward planning process so crucial is that the decisions made at each level profoundly affect those made at the next. For example, the desired student learning outcomes influence the kinds of practices and policies that will be implemented. Likewise, the practices and policies to be implemented influence the kinds of organizational support or change required, and so on.

The context-specific nature of this work further complicates matters. Even if we agree on the student learning outcomes we want to achieve, what works best in one context with a particular community of educators and a particular group of students might not work equally well in another context with different educators and different students. The influence of these varied contexts is what makes developing universal best practices in professional development so difficult. What works always depends on where, when, and with whom.

Regrettably, professional development leaders too often fall into the same trap in planning that teachers do when they plan their lessons. They plan what they are going to do rather than what they want their students to know and be able to do. Their planning tends to be event-based or process-based, not results-based. Planning this way not only diminishes the effectiveness of their efforts, it also makes evaluation much more difficult.

Beginning professional development planning by considering learners’ needs and the specific learning goals to be achieved makes planning more efficient and results much easier to evaluate.

CONCLUSION

Many good things are done in the name of professional development. But so are a lot of rotten things. What professional development leaders haven’t done is provide evidence to document the difference. Today, in the context of the No Child Left Behind Act and its increased demands for accountability, presenting that evidence is more important than ever.

Evaluation provides the key to distinguishing between the good and the rotten. Backward planning provides the foundation for developing meaningful and effective evaluations that demonstrate the difference. Using the five levels of evaluation for both will not only make professional development programs more successful, but also will make evaluation efforts simpler and more purposeful.

REFERENCES


research on the Kentucky Education Reform Act (pp. 191-209). Frankfort, KY: The Kentucky Institute for Education Research.


Quick Guide to Building an Evaluation of Staff Development

Adapted from Guskey and Roy Workshop, NSDC, 1996

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<th>Level 2: Participant learning from staff development</th>
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<th>Level 4: Participant use of new knowledge and skills</th>
<th>Level 5: Results—student learning outcomes</th>
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<td>A. What questions are addressed?</td>
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<td>Did participants acquire the intended knowledge and skills?</td>
<td>How well does the organization support professional development? Including through</td>
<td>Do participants effectively incorporate the new knowledge and skills into classroom practice?</td>
<td>How did the teacher’s staff development affect student learning?</td>
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<td>Was their time well spent?</td>
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<td>Did it impact student performance?</td>
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<td>Did the content make sense?</td>
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<td>○ Resources</td>
<td></td>
<td>Is student achievement improving?</td>
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<td>Will the content be useful?</td>
<td></td>
<td>○ Protection from intrusion</td>
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<td>Did it influence students’ physical or emotional well-being?</td>
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<td>Was the leader knowledgeable and helpful?</td>
<td></td>
<td>○ Openness to experimentation</td>
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<td>Are students more confident as learners?</td>
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<td>Were the refreshments fresh and tasty?</td>
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<td>○ Collegial support</td>
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<td>Is student attendance increasing?</td>
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<td>Was the room the right temperature?</td>
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<td>○ Principal support</td>
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<td>Were the chairs comfortable?</td>
<td></td>
<td>○ District administrative support</td>
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<td>B. How will the information be gathered?</td>
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<td>Demonstrations</td>
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<td>Participant portfolios</td>
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Adapted from Guskey and Roy Workshop, NSDC, 1996
| C. What is measured or assessed? | ▪ Initial satisfaction with the experience | ▪ New knowledge or skill level of participants | ▪ Assessing the organization’s advocacy, support, accommodation, facilitation, and recognition of those involved in improvement efforts | ▪ Degree and quality of implementation | ▪ Student learning outcomes:  
  ▪ cognitive  
  ▪ affective  
  ▪ psychomotor |
|-------------------------------|---------------------------------|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-----------------------------------------------|
| D. How will the information be used? | ▪ To improve the design and delivery of the program | ▪ To improve the format, content, and organization of the program | ▪ To document and improve organizational support for change  
  ▪ To increase support strategies that enhance professional development | ▪ To document and improve the implementation of program content | ▪ To focus and improve all aspects of program design, implementation, and follow-up  
  ▪ To prove that staff development makes a difference in improving student learning/education |

Note: You must complete the Level 1 evaluation before going on to Level 2, the Level 2 evaluation before Level 3, Level 3 before Level 4, and Level 4 before Level 5.

For more information, see Evaluating Professional Development by Thomas Guskey, Corwin Press (2000).
As teachers and leaders are well aware, schools and districts across the country have invested enormous amounts of money and energy in creating data management systems so that teachers can access information about their students’ performance. With these systems in place, the focus now needs to move to the structures and allocation of time that will allow teachers to engage in data conversations about student achievement and its implications for classroom planning and instruction. Such time and structures will ensure that the necessary conditions are in place for data to be used to impact student achievement.

Following and in the table on p. 16, we summarize a framework that...
Types of data conversations

<table>
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<th>Data used</th>
<th>Who is involved</th>
<th>Conversation topics</th>
<th>Frequency</th>
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| Whole-school conversations | State assessments, district benchmarks | School improvement team, entire staff | • Patterns of student achievement.  
• Needs for schoolwide programs (instructional, curricular, professional learning).  
• Needs for additional knowledge and skills for staff. | 2 times a year |
| One-on-one conversations with focus on multi-year growth of students | State assessments, benchmark exams, end-of-course assessments, classroom assessments, common assessments | Teacher and administrator and/or coach | • Growth of students.  
• Overall proficiency of students.  
• Instructional strategies to meet student learning needs. | 2 to 3 times a year |
| Department and/or grade-level teams with focus on individual student interventions | Student performance on classroom and common assessments, discipline records, student work | Core teams, grade-level teams | • Diagnosis of individual knowledge and skills.  
• Next steps for students.  
• Grouping of students for instruction and intervention.  
• Pyramid of interventions. | Once a month or more often |
| Department and/or grade-level teams with focus on instructional strategies | State assessments, benchmark assessments, common assessments, unit assessments | Grade-level or content-area groups | • Growth of students.  
• Patterns in proficiency.  
• Instructional strategies.  
• Assessment strategies. | Once a week to once every 6 to 8 weeks |
| Student goal-setting conversations | Student work, grades, state assessments, common assessments, benchmark assessments | Teacher and individual students | • Goal setting.  
• Strategies for success.  
• Celebrations of learning. | Once a week to once a month |

outlines a variety of types of data conversations. For each type of data conversation, we define the purpose, identify possible data sources, recommend frequency, suggest possible topics for the conversation, and identify who should be involved.

Effective data conversations share several common characteristics, whether at the school, grade, department, or team level. Characteristics include:

- Teams need to do an analysis of the current state of student achievement and create SMART goals (specific, measurable, attainable, results-based, and time-bound) for student learning.

- Practitioners who can take action and monitor student learning should be the core participants in team conversations.

- Members of the data conversation should agree that the data they are examining is a good measure of student learning.

- Data used in these conversations can be from national or state tests or common assessments.

- Teams need a facilitator who keeps the conversation focused on teaching and learning, asks the hard questions, and ensures that the group moves to action.

- Teams need a recorder who assists in making sure all members of the group leave with the same understanding of the discussion and next steps.

CINDY HARRISON is an independent consultant who works with schools and districts around the world. Her work focuses on instructional coaching, teacher leadership, organizational change, school improvement, and professional learning communities. You can contact her at harrison.cindy@gmail.com.

CHRIS BRYAN is an independent consultant. Her work focuses on standards-based planning and instruction, school improvement, and instructional coaching. You can contact her at lcrsbryan@msn.com.
DATA CONVERSATIONS

SCHOOL IMPROVEMENT TEAM CONVERSATIONS

Purpose: To create and monitor a schoolwide implementation plan for continuous improvement by analyzing student/school data trends.

Possible data sources: Student achievement (formative and summative) assessments, including disaggregation by subgroups, demographic trends, and perception/survey.

Frequency: Quarterly or trimester data reviews.

Possible topics: The school improvement team analyzes and interprets data so that the whole school understands how the school is functioning. These conversations include setting goals in areas identified for improvement, examining best practices to be used schoolwide, and identifying benchmarks to measure growth in student achievement as well as levels of implementation of the identified practice. Moving beyond using the practices to assessment of the impact of the practices assists the team in identifying where they need to make adjustments.

Who should be involved: A representative team of parents, teachers, students and administrators.

School example: Cooper Elementary School found that they were in the bottom quartile in math for the past three years. Although the school had been implementing the Investigations math curriculum during that time, levels of implementation of the curriculum varied in individual classrooms. To assess whether the new curriculum was making a difference in math achievement, the team needed to collect data and assess the level of implementation first. The team asked each staff member to complete an Innovation Configurations map at the beginning, middle, and end of the year. In addition, a set of “look-fors” guided the principal during her walkthroughs and was also used by instructional coaches when they worked with individuals or teams of teachers to co-plan. In order to assess gaps in implementation and teacher knowledge and skills, data were exam-
In the departmental or grade-level conversation focused on the individual student, the purpose is to identify next steps, interventions, and focus areas for additional student learning.

These conversations often focus on the performances of a teacher’s past and current students and help to identify areas of success and weakness. Participants may discuss programs and classroom practices to identify and solve problems rather than to assign blame for results. These conversations can focus on data over time and can also include conversation around the teacher’s current students and their needs. The growth of students is the focus rather than current proficiency of students so that teachers consider end points and also look at the growth of individual students.

Who should be involved:

Individual teacher and building-level administrator or coach.

School example: Felicia, a middle school social studies teacher, has been teaching for more than 20 years. In the last two years, the social studies department has been focused on literacy in the content area. In her data conversation with the principal at the beginning of the year, she noted that the English language learners were not making much progress in writing or reading in her classroom. Felicia identified this as an area for growth on her improvement plan. She and her principal then looked at her current students and identified some strategies to implement with the ELL students and identified some strategies to implement with the ELL students and identified some strategies to implement with the ELL students.

Frequency: Once a week to every six weeks.

Possible topics: Teams agree on and administer assessments to gain information about their students in relation to the school improvement plan. They create class profiles that identify strengths and weaknesses of individual students in a variety of areas which can then be used to differentiate instruction, provide interventions, and focus classroom instruction. Monitoring progress frequently ensures that the makeup of the student groups remains flexible. The team identifies strategies and allows enough time to determine the student’s responsiveness to the strategy.

The grade-level/department team follows a problem-solving model that includes:

- Analyze data and reach agreement on areas of need;
- Group students by strengths and areas of need, identifying similarities and differences between classrooms;
- Research/examine best practices;
- Develop grade-level/department action plans;
- Implement the plan; and
- Evaluate and revise the plan based on student growth data.

Who should be involved: Grade-level or department teams.

School example: In September, an 8th-grade core team at Villa Nova Middle School administered its pre-assessment and noticed that it had a large group of students who scored low in vocabulary. The team decided to address this need by grouping students for scaffolded instruction across classrooms, preteaching unit vocabulary, assigning students to after-school intervention groups, and monitoring progress through common unit assessments. After each structure was implemented, the 8th-grade team discussed student growth and identified next steps for individuals and groups of students.

DEPARTMENT/GRADE-LEVEL CONVERSATIONS AROUND INSTRUCTIONAL STRATEGIES

Purpose: To engage in deep conversations around teaching and student learning, identifying student successes and challenges and then moving to teaching strategies and approaches that are successful and those that need to be changed.

Possible data sources: Common assessments, district benchmarks, individual teacher-created assessments, pacing charts, or examples of actual student work.

Frequency: One or more times a month.

Possible topics: Teachers discuss
what happened for students in the learning process and what instructional practices made a difference. Sometimes the conversation may focus on success with certain types of students (special education or advanced students) or with levels of student thinking exemplified in the work. Co-planning units including assessments, teaching the units, and then discussing student learning results is a valuable way to structure these discussions. Develop team goals to support school improvement goals and identify teacher learning needs. Some schools have incorporated the lesson study approach into these data conversations.

Who should be involved: The teachers involved and instructional coaches, when available. Some schools include administrators in these discussions; however, teachers can be brutally honest about their own strengths and weaknesses when there is no threat of information being used in evaluation. In this case, the administrator’s role is to allocate time and ensure that these sessions focus on the importance of reflecting on student learning and teacher practices.

School example: Jorge, a high school physics teacher, is meeting with four of his peers who also teach physics. They look at student results for a unit they co-planned and taught. As they compare results, they notice patterns of high achievement and a high level of growth for students from the pretest to the final assessment for the classrooms where Jorge was the primary instructor. He shares strategies he used, and the team agrees to incorporate the strategies into their next unit.

INDIVIDUAL STUDENT GOAL-SETTING CONVERSATIONS

Purpose: To provide students with an understanding of their current level of achievement in order to set goals with action strategies so that students are actively engaged in learning.

Possible data sources: Student work, grades, state assessments, common assessments, district benchmarks.

Frequency: Beginning of year and after individual units.

Possible topics: Students look at their own performance and may compare results to the defined proficiency level and/or other students’ performance. This is usually a conversation between teacher and student but could be small-group or whole-class conversation. Teaching students strategies for success is an integral part of this conversation. Often data walls are used to inform and motivate students to reach higher levels of performance. Celebrating success needs to be a part of this practice.

Who should be involved: Classroom teacher and individual student.

School example: In Aisha’s high school algebra class, students set learning goals based on data. Students take an exam or quiz and then analyze their results on an analysis spreadsheet that includes an action plan. The teacher asks students to write a summary of the learning at the end of each unit. Students identify key math concepts, their areas of strength for the unit, a problem they still struggle with, what they have done to monitor their progress towards proficiency, and what they will do to move themselves further towards proficiency. The teacher reads each summary and conducts a brief student conference.
The Numbers Game
Measure progress by analyzing data

By Joan Richardson

If a district or a single school has a vision of what it wants to be, the use of data can be a powerful tool to measure its progress along the way.

Sylvie Hale has seen the power of using data in that way. “Schools have to collect data to make sure they’re on target. Data do not lie,” she said.

Ask Hale, senior research associate at West Ed, for an example of how using data guided a school to fulfill its vision and she’s ready with a handful of stories. This is one of her favorites:

A rural California school district had a goal of ensuring that all children would read at grade level by 3rd grade. Teachers in one school were quite discouraged because many 1st and 2nd graders were reading below grade level. How could they meet the district goal if children were falling behind so early?

Teachers quickly decided that the school needed a new reading program.

Hale and other consultants from a regional assistance center urged the school to look over its data very closely. Perhaps the school would discover that the curriculum wasn’t the only reason students were struggling with reading.

After receiving some preliminary school data, teachers discovered that a majority of kindergartners had been absent for more than half the year. That must mean that parents don’t care enough about education to get them to school, teachers concluded.

The consultants pushed them to look at other possible explanations for missing school.

The teachers talked with parents of students with high absenteeism and learned that these children rode a bus to school but that the district provided no bus transportation to take them home at the end of their half-day in school. The buses were needed to transport high school students and the district did not want to mix high schoolers with kindergartners. Working parents or parents who relied on others for after-school transportation frequently kept children home rather than deal with the transportation hassle.

Clearly, the reading curriculum was not at fault. When providing transportation for these kindergartners turned out to be financially unfeasible, the teachers explored other options.

By the next school year, the school created an...
Measure progress by analyzing data

**A DATA PLAN**

Let’s assume that district’s vision includes a statement that all children will read at grade level by 3rd grade and remain at grade level every year thereafter. How could you use data to measure your progress towards achieving that vision?

1. **Collect basic information.** Every school should maintain basic data on student demographics and achievement. See the Student Data Checklist on Page 3 for a guide to collecting information that will give you a snapshot of students in your school.

   Break down this information by grade. Keep the original data available so you can cross-reference it with other data in later steps.

2. **Identify additional data.** To check on students’ reading ability in your school, what data will you need to collect?

   To measure academic performance, a school would probably collect, at a minimum, standardized test scores, grades, and classroom assessments. You should always collect at least three types of data for any study.

   Identify who will be responsible for collecting this data and set a date for finishing this task.

3. **Disaggregate the data.** Assemble the academic performance data and disaggregate it according to the character-istics collected under Step One. At a minimum, you should break down each type of data by gender, race, socio-economic factors, attendance, mobility, discipline issues, and English language ability.

   Use the Data Summary Sheet on Page 5 for this process. Prepare one sheet for each type of data you collect.

4. **Analyze the data.** After you’ve filled out the Data Summary Sheets, begin to ask questions about that data.

   What is the lowest performing group? What is the highest performing group? Are boys and girls performing equally well in reading? Are there dips in reading achievement between different grades? If so, which grades? What are the reading levels of various language groups? Do different socio-economic groups have different reading levels? Are reading levels similar between various racial and ethnic groups?

5. **Summarize the data.** Describe in a statement what the data tells you. These statements can be called either data summary statements or needs statements. See sample statements on Page 4.

   In this step, the school team is trying to identify the problem, not solve it. This forces individuals to spell out what they see and not fall back on assumptions, Hale said. Write one statement or write a dozen summary statements or needs statements. These statements can be called either data summaries or needs statements.

   At this stage, avoid the urge to brainstorm solutions. That step will come later. For now, concentrate on simply describing your observations.

6. **Brainstorm causes.** Once a school team has objectively evaluated the data, the next step is to suggest possible explanations.

   What’s going on instructionally? What’s going on with the curriculum? Where are the gaps? Why do these gaps exist?

   “If you’re not getting the results you want, there’s dissonance somewhere. Where is the dissonance?” Hale asks.

   For example, a staff may suggest that the curriculum is not aligned with the assessment or that teachers lack sufficient training to implement the curriculum appropriately.

7. **Collect more data.** After the team has suggested explanations for blips in the data, the next step is to collect more data to determine which explanations are most accurate.

   For example, if the team hypothesizes that the curriculum has not been implemented completely, the team might survey teachers about their practices as well as observe relevant classes.

8. **Analyze and summarize data.** As it did with the student data, the team now analyzes the data it has collected regarding instruction and curriculum.

   The team repeats the process of writing objective statements about the data it has collected.

9. **Identify a goal.** After the data has been analyzed and summarized, the team now needs to identify its goals. See Page 6 for a tool to help with this.

   Write a specific, measurable and attainable goal. What would you consider success? How will you measure that? When will you measure that?

10. **Repeat the process.** Once the goal has been identified, the process has not ended. The team needs to establish a timetable for repeating the process of collecting and analyzing the data. This forces the team to stay focused on measuring its progress.

    But Hale cautions teams against focusing too narrowly on certain areas because of the potential to ignore other areas. “You have to collect data to make sure you’re on target but you also have to look at data to make sure other things aren’t falling through the cracks,” Hale said.

    “Data collection and analysis is a continuing process. It never ends. Once you begin asking questions and looking for answers, you find that you have more answers and more questions,” Hale said.
Student data checklist

<table>
<thead>
<tr>
<th>STUDENT DATA CHECKLIST</th>
<th>GRADE LEVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ENROLLMENT</strong></td>
<td></td>
</tr>
<tr>
<td>Total number of registered students.</td>
<td></td>
</tr>
<tr>
<td>Number of students in special programs (e.g., Title I, LEP, gifted and talented) broken down by category.</td>
<td></td>
</tr>
<tr>
<td>Number of students broken down by ethnicity, language group or other meaningful categories.</td>
<td></td>
</tr>
<tr>
<td><strong>DAILY ATTENDANCE</strong></td>
<td></td>
</tr>
<tr>
<td>Average daily attendance of students by grade, grade span, whole school, or other enrollment category.</td>
<td></td>
</tr>
<tr>
<td>Percent of students tardy for classes.</td>
<td></td>
</tr>
<tr>
<td>Number of students who have been absent from school 21 days or more.</td>
<td></td>
</tr>
<tr>
<td><strong>MOBILITY/STABILITY</strong></td>
<td></td>
</tr>
<tr>
<td>Mobility rate: percent of children who move in and out of a school during a year.</td>
<td></td>
</tr>
<tr>
<td>Stability rate: the percent of students who remain in the same building for the entire year.</td>
<td></td>
</tr>
<tr>
<td><strong>SOCIOECONOMIC STATUS (SES)</strong></td>
<td></td>
</tr>
<tr>
<td>Percent of students receiving free or reduced-price lunch.</td>
<td></td>
</tr>
<tr>
<td>Average level of parents’ education and/or household income.</td>
<td></td>
</tr>
<tr>
<td>Unemployment rates in the attendance area.</td>
<td></td>
</tr>
<tr>
<td><strong>STUDENT BEHAVIOR</strong></td>
<td></td>
</tr>
<tr>
<td>Number or percentage of discipline referrals or incidents.</td>
<td></td>
</tr>
<tr>
<td>Number or percentage of student suspensions and expulsions.</td>
<td></td>
</tr>
<tr>
<td>Frequency of gang-related, substance abuse, or other at-risk behavior.</td>
<td></td>
</tr>
<tr>
<td><strong>LIMITED ENGLISH PROFICIENCY</strong></td>
<td></td>
</tr>
<tr>
<td>Percent of students with limited English proficiency.</td>
<td></td>
</tr>
<tr>
<td>Percent of families who speak English as a second language.</td>
<td></td>
</tr>
</tbody>
</table>

Source: Comprehensive School Reform Research-Based Strategies to Achieve High Standards by Sylvie Hale (San Francisco: WestEd, 2000). See Page 7 for ordering information.
Crafting data summary statements

Comments to facilitator: This activity will assist the team in focusing on what it has learned from the data it has collected about the school. As the team compares this data to its vision for the school, it should be able to identify the steps the school needs to take to reach identified goals.

Materials: Several copies of the data summary sheet, various data sources, chart paper, markers, pens.

Directions

1. Complete the Data Summary Sheet (see Page 5) for each of your data sources. Be as complete as possible. Think about other possible summary tables that might also be created. For example, after completing the sample data summary sheet, you may notice that girls in 4th through 6th grades are underachieving in mathematics. You could create another data summary table in which you break out the girls by ethnicity to see if a pattern emerges.

2. Summarize the data by writing a statement based on the data. As you review the data, consider:
   - Which student sub-groups appear to need priority assistance, as determined by test scores, grades, or other assessments? Consider sub-groups by grade level, ethnicity, gender, language background (proficiency and/or home language), categorical programs (e.g., migrant, special education), economic status, classroom assignment, years at our school, attendance.
   - In which subject areas do students appear to need the most improvement? Also, consider English language development.
   - In which subject areas do the “below proficient” student sub-groups need the most assistance?
   - What evidence supports your findings?

3. For each data summary statement, brainstorm all the possible reasons why the data show what they do. For each reason, identify data or facts that support that assertion. If no data exist, determine how to locate data that would support the assertion. Continue asking “why” until the root cause of the problem or need has been identified.

Source: Comprehensive School Reform Research-Based Strategies to Achieve High Standards by Sylvie Hale (San Francisco: WestEd, 2000). See Page 7 for ordering information.
Data summaries

Data type: __________________________________________________________
(e.g., enrollment, student achievement, total, attendance, student achievement reading)

Data source/measure: __________________________________________________
(e.g., SAT9, school records, staff survey)

What the numbers represent: __________________________________________
(e.g., percentage of students below grade-level; number of students higher than 4 on district math assessment; percentage of students who say they like to read)

<table>
<thead>
<tr>
<th>STUDENT CHARACTERISTIC</th>
<th>Grade Level</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHNICITY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>African-American</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Native American</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GENDER</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INCOME</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-income</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not low-income</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LANGUAGE ABILITY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fully proficient</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Limited proficient</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-proficient</td>
<td></td>
<td></td>
</tr>
<tr>
<td>English only</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPECIAL POPULATIONS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Migrant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Title 1 Target Assist</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Special education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preschool</td>
<td></td>
<td></td>
</tr>
<tr>
<td>After-school</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Write a statement summarizing the data collected above. A data summary statement or need statement does not offer a solution nor does it describe a cause or lay blame.

Source: Comprehensive School Reform Research-Based Strategies to Achieve High Standards by Sylvie Hale (San Francisco: WestEd, 2000). See Page 7 for ordering information.
Moving from needs to goals

Comments to the facilitator: This activity will aid you in developing goals based on your identified needs.

Materials: Poster paper, sentence strips, masking tape, markers. The list of data summary statements developed using the Crafting Data Summary Statements tool on Page 4 or other method.

Preparation: Prepare a sheet of poster paper with your vision and post that in the room where you are working. Write each data summary statement on a separate sentence strip and post on the wall. Write the model statements listed below on chart paper and be prepared to post those on the wall as you begin your work.

Directions

1. Depending on the size of the group and the number of data summary statements, the facilitator may want to break a larger group into several smaller groups of three or four persons.

2. Each group should transform one statement into a student/program goal. The group should include an objective, outcome indicator, baseline, timeframe, target standard or performance, and target instructional practice. Refer to your vision often as you write these goals.

**STUDENT GOAL MODEL**

Students in grades 2 through 5 will **OBJECTIVE** as measured by **OUTCOME INDICATOR**. Current results indicate that **BASELINE**. At the end of **TIME FRAME**, students in these grades will perform at **TARGET STANDARD OR PERFORMANCE**, and at the end of two years, they will perform at **TARGET STANDARD OR PERFORMANCE**.

**EXAMPLE**

**Data summary statement:** Most of our upper-elementary students are under-performing in language arts.

**Student goal:** Our upper-elementary students will improve their language arts skills (**OBJECTIVE**) as measured by the district assessment and standardized test (**OUTCOME INDICATOR**). Current results indicate that 67% of students in grades 4-6 are “below proficient” (**BASELINE**). By spring 2001 (**TIMEFRAME**), 25% of students currently under-achieving in language arts — particularly those in upper elementary — will improve their literacy skills by moving from “below proficient” to “proficient” (**TARGET STANDARD OR PERFORMANCE**).

**PROGRAM GOAL MODEL**

Current records show that **BASELINE** teachers participated in professional development activities offered by our school this year. By **TIMEFRAME**, our school will **OBJECTIVE** as measured by **OUTCOME INDICATOR**. As a result, teachers will offer **TARGET INSTRUCTIONAL PRACTICE** to these students. At the end of the second year, staff will **OBJECTIVE** as measured by **OUTCOME INDICATOR**. As a result, students will perform at **TARGET STANDARD OR PERFORMANCE**.

**EXAMPLE**

**Data summary statement:** Our lowest-performing students in language arts are African-American, particularly males.

**Program goal:** By the end of the 2000-2001 school year (**TIMEFRAME**), all staff will have learned about effective instructional practices that accelerate the academic achievement of African-American males (**OBJECTIVE**). Currently, only 5% of staff have these skills (**BASELINE**). The following year (**TIMEFRAME**), all staff will have implemented new strategies (**TARGET INSTRUCTIONAL PRACTICE**) as measured by peer coaching and classroom observations (**OUTCOME INDICATOR**).

Source: *Comprehensive School Reform Research-Based Strategies to Achieve High Standards* by Sylvie Hale (San Francisco: WestEd, 2000). See Page 7 for ordering information.
Learning about using data

■ Comprehensive School Reform Research-Based Strategies to Achieve High Standards by WestEd. Offers a coherent framework for planning schoolwide improvements. Describes the context and key elements of comprehensive school reform and offers a process for conducting comprehensive data analysis, planning, and implementation. Includes numerous tools and activities to facilitate planning and implementation, profiles of successful schools, and lists of additional resources. The entire guidebook can be downloaded at no charge as a PDF file at www.wested.org/csrd/guidebook. A complete set of resources (the guidebook plus two videos) also is available for $59.95. For information about ordering, visit the WestEd web site at www.wested.org/wested/news.shtml.


■ How to Conduct Surveys (2nd ed.) by A. Fink and J. Rosecoff. Thousand Oaks, Calif.: Sage, 1998. Covers the process of doing surveys from planning to designing to conducting, analyzing to presenting findings. Includes overview of how to do statistical analyses of survey data. To order, call (805) 499-9774, fax (805) 375-1700, e-mail: order@corwin.sagepub.com. Price: $29.95.


■ Tracking your school's success: A guide to sensible evaluation by J.L. Herman and L. Winters. Thousand Oaks, Calif.: Corwin, 1992. Focuses on providing educators with guidance and tools to help them answer questions such as How are we doing? How can we improve? How can we share our successes? To order, call (805) 499-9774, fax (805) 375-1700, e-mail: order@corwin.sagepub.com. Price: $29.95.

■ “Translating school improvement into numbers,” by Joan Richardson, School Team Innovator, February 1997. Describes a cycle for data-based decision making and can be used as a guide for implementing vision. Available in NSDC’s Online Library, www.nsdc.org/library. To order a back copy, calling the NSDC Main Business Office at (800) 727-7288.

on the web

www.nsdc.org/library/data.html

Look in the NSDC Online Library for more resources on data-based decision making. This library is updated regularly with new materials. Comprehensive members of NSDC also have access to full text of every NSDC publication. To learn more about that membership option, contact the NSDC Main Business Office at (800) 727-7288.
I'm a school principal and I'm intrigued by everything I'm hearing about using data in schools. But, frankly, I don’t have a clue about where to begin and I'm a little embarrassed about trying to muddle through this with my staff without having more background. I know many other principals who feel the same way. Do you have any suggestions for us?

You’ve actually identified one of the reasons why so many schools still haven’t moved into using data. Principals don’t have the background or skills they need to lead a data analysis effort. They feel uncomfortable admitting what they don’t know and few districts have helped by providing them with the learning opportunities they need.

First, I would suggest talking with other principals in your district about assembling a group of principals to learn more about data. Principals in your district could create their own data study group that focuses on districtwide issues.

Then, ask the district office to help provide you with the staff development you need to learn the necessary skills. In many districts, the administrator in charge of assessment already has much of the knowledge that you need to have. If that’s not the right person for your group, then find someone you respect to teach you about various sorts of data that the district already collects and teach you how to interpret that data. You may be surprised to learn the kind of information that the district has available — and doesn’t even realize would help or interest schools.

If your district is unable to support you in this effort, consider tapping the resources at a nearby university or regional educational service center. That would also offer the advantage of being able to connect with principals outside your district.

Having that experience would prepare you to return to your school as a facilitator for your school-based data process.

Finally, although it’s beneficial for you to learn about the process before you work with your staff, muddling through it with your staff isn’t such a bad plan. When principals and staffs learn a new skill together, it demonstrates their willingness to be a learner alongside their teachers. Who said principals have to know everything?
Facilitator: 10
Refreshments: 8
Evaluation: 0

Workshop satisfaction misses the point. Evaluation means understanding what participants learn, when and how they apply the learning, and when and how it benefits students.

BY HAYES MIZE LL

Evaluation is the burl under the saddle of professional development. To date, many educators have only gone through the motions of evaluating efforts to increase what their colleagues know and can do. They have focused more on the delivery of staff development than on its results, often using the most rudimentary techniques for gathering data. Simplistic surveys and the use of the Likert scale are favorite techniques. What did participants think of the workshop leader? Was the setting comfortable? Did participants enjoy the refreshments? Did they find the experience helpful? Educators answer these questions in different ways. Many provide answers they believe their supervisors want to hear. Others affirm the person responsible for organizing the professional development. Some people use the opportunity to channel their anger about even having to participate in staff development, or about unrelated grievances.

Educators responsible for profes-
sional development continue to take this approach to evaluation for four reasons. First, the evaluations do not take much time to develop, administer, or analyze. Surveys and the Likert scale lend themselves to evaluations that are distributed almost as an afterthought to session participants just before they rush out the door. Predictably, participants respond hastily, drawing more on their gut reactions than a thoughtful and honest assessment of their experience. Second, these evaluations almost always generate positive responses, thereby allowing the person in charge to feel good and cite the encouraging “results” of their efforts. Even if there is a significant minority of less favorable reactions, it is possible to explain them away because many more are positive. Third, school board and central office leaders rarely ask for evidence about the effects of staff development, and if they do ask, almost any evidence is satisfactory. What they value is data they can use to communicate positive results. They are less concerned with the validity or nuances of the data. Fourth, staff developers have invested little in increasing their own learning about effective evaluation and how to use it to improve professional development. It is far easier to rely on evaluation techniques that are not only familiar but also readily acceptable to school system leaders.

In light of these powerful and longstanding disincentives for effective evaluation, why is it now gaining greater attention? Two factors are converging to impinge on professional development. On the one hand, current funding constraints are causing school systems to make difficult budget decisions that reduce the frequency of staff development. This is not new. In tough economic times, school boards often have targeted professional development as a soft activity they can cut with virtually no political risk. On the other hand, school systems are under increasing pressure to demonstrate that they can educate all students to higher levels. Unfortunately, in past decades most school systems invested little in learn-
Evaluation is important because if educators are going to get the staff development they need to help their students perform proficiently, they will have to demonstrate that adult learning can significantly increase student achievement. The field of staff development needs better evaluation both to improve the effectiveness of teachers’ learning experiences and to produce credible evidence that will garner more support for professional development.

Staff developers also need to devote more attention to evaluation because professional development is changing rapidly. Workshops and speakers will probably always be with us, but questions about their effectiveness are prompting more educators to consider other approaches. It was tempting to take the low road to evaluation when the tactics of staff development were rudimentary. Now, however, such sophisticated methods as coaching, study groups, small learning communities, and distance learning are increasing. Although these innovations are promising, even exciting, educators should not once again confuse process with results. In and of themselves, the newer types of staff development mean little. What matters is the degree to which they cause educators to develop and apply practical knowledge and skills that increase student achievement. It will require more intentional, consistent, and robust evaluations to determine whether and how neo-professional development is more powerful than its predecessors.

But how should staff developers begin? The first challenge is to be thoughtful about what to evaluate. This can be confusing because potentially there are multiple points for evaluation. Staff developers can:

- Evaluate the delivery of professional development.
- Evaluate what educators learn as a result of staff development.
- Evaluate whether and how educators apply what they learn.
- Evaluate whether and how students benefit as a result of the educators applying what they learn through professional development.

These opportunities for evaluation are not a menu. Staff developers do not have the luxury of choosing to focus on only one or two points of inquiry. Instead, it is necessary to construct a sequential evaluation that not only assesses the strength of each link in the chain of professional development, but increases staff developers’ understanding of the connections between each link. Staff development is a process, not an event. It begins with creating learning opportunities for educators and ends with students benefiting from the educators’ learning. The higher the quality of the complete process, the more effective professional development will be. This requires staff developers to take a new, holistic view of professional development as a system designed to raise the performance levels of both educators and students.

Creating this alpha and omega approach to staff development will require hard thinking about tangible benefits students should derive from the whole process of professional development. In the past, educators have often said that of course the ultimate goal of staff development should be to benefit students, but they have also said it is not realistic to expect professional development to increase student achievement. Why not?

While it is certainly true that not just any activity conducted under the label of staff development will enhance student performance, it should be possible to achieve this objective if educators thoughtfully design and carefully implement professional development for this specific purpose. It is even more possible when staff developers collaborate with school leadership teams to understand student performance data and identify learning gaps teachers need to address. If teachers do not have the knowledge, skills, or curricula to meet students’ needs, staff developers should be able to help schools create learning opportunities that will enable the educators to tackle students’ learning problems successfully.

The seminal question driving the design of professional development should be, ‘What are students’ specific learning needs and what does that tell us about educators’ specific learning needs?’ It is what students need rather than what adults want that should shape educators’ learning. If staff developers begin with this question, it is more likely they will succeed in conceiving and implementing adult learning experiences that have a positive, demonstrable effect on student achievement. This is not easy, because it is challenging to forge links in the chain of professional development with “meeting students’ learning needs” at one end and “staff development experiences” at the other. It
requires a high degree of focus and analysis, and a sophisticated understanding of causal relationships. Nevertheless, this is the challenge educators must meet to demonstrate the power of professional development.

If staff developers start thinking of professional development as a sequential process that begins with engaging educators in learning experiences and culminates with specific benefits to students, they will discover it has profound implications for evaluation. Assessing the effects of staff development will call for a more comprehensive approach than merely gauging participants’ immediate reactions to a short-term training. Adult learning only begins with participation in a structured professional development experience. The learning process continues as educators struggle to make meaning of what they have learned and apply it in their daily practice. They only learn the power of the knowledge and skills they have developed when they analyze its effects on their students.

It will be necessary, therefore, to develop evaluation strategies that are integral to the entire process of professional development. While it will continue to be important to evaluate the delivery of staff development, it will be essential to understand what participants actually learn, when and how they begin to apply their learning, and when and how it benefits students. This will require a rollout timeline that projects when each component of the professional development process will occur or when there is likely to be demonstrable evidence of the desired learning or application of learning. If one assumes that staff development, no matter how powerful, may not immediately result in more effective teaching, staff developers must consider what interim indicators, and within what time frame, they should look for as valid measures of progress.

Considering such difficult questions and agreeing on acceptable answers can help staff developers in several ways. The intended, ultimate result of professional development is clearer to more people, creating the basis for educators in diverse roles to collaborate to achieve the result. Staff developers gain allies in their efforts to organize more productive professional development and raise expectations about its outcomes. Engaging others also makes the evaluation process easier because others understand and accept the measures staff developers use to determine professional development’s effectiveness. Data collection is less of a chore because educators see that it improves staff development and documents its benefits. Evaluation ceases to be a simplistic, self-justifying exercise and becomes a process that is integral to a school system’s or school’s overall effort to improve student performance. If staff development is less marginal, and if it is valued more by both front-line educators and central office leaders, they will make a greater effort to protect and then expand it. In short, getting serious about evaluating professional development demonstrates that a school system or school is truly serious about improving teacher and student performance.

As this issue of JSD illustrates, NSDC is taking the lead in raising the awareness of staff developers, and educators generally, about the importance of evaluating professional development, and it is providing examples of how they can develop and execute evaluations more effectively. One can hope that month by month, year by year, more and more educators responsible for professional development will learn how to examine and reflect on the results of their efforts.

But another step is necessary. They must then use the information and insights effective evaluations provide. This can be painful because it often means acknowledging that the staff development one planned and implemented did not produce the results one intended.

No matter how rigorous evaluations may be, if educators do not use their findings to strengthen professional development so it produces better results, the evaluations will be useless. On the other hand, when educators use evaluations to full effect, they can provide an infectious vision for a whole school system or school. They demonstrate they are strong enough to accept and use unfavorable data to improve their efforts. They show that learning is for everyone, no matter what their title or status, and that true learning results in new, more effective behaviors. They breathe new life into the concept of “continuous improvement.”

The potential of evaluation, then, is all about positive leadership, and it is only through that leadership, in its many forms, that professional development will become all it must be. That is our destination, even if we have miles to go before we reach it.
TOOL 3:
Using the IC Maps as a Self-Assessment

IC maps can be used as a self-assessment tool. Similar to the process described in Tool 2, Checking Progress, an individual (or even a team) can use the same process to conduct a self-assessment.

**Purpose:** Conduct a self-assessment to check implementation progress of one or more standards and compare current behaviors to the descriptions in the IC maps.

**Group Size:** 1 (or more, if conducting team assessments)

**Time:** 10 minutes (longer if more than one person is involved)

**Materials:** IC map for one standard for the appropriate role group.

**DIRECTIONS**

1. The individual identifies one or more standards to self-assess. If the school or a team has a goal for improvement in one standard area, everyone might use the same standard with the appropriate role group IC map to conduct periodic self-assessments.

2. The individual reads the desired outcomes and all the variations and determines the level that best matches his or her current practice. He or she should record those levels on a separate sheet and include the date.

3. The individual can use this information to identify next steps or assistance necessary for improvement. More information on next steps is included in Tool 4.