Notes & Reflections

For professional developers *from* professional developers

IN THIS ISSUE:

Keeping Professional Learning on Track With Evaluation

The delivery of professional development for teachers rarely proceeds exactly according to plan. Instead, the director of professional development must continually adapt the overall program to meet the specific needs of the school, grade, or teacher. In order to make these adjustments, the director and provider of professional development need continuous feedback about the effectiveness of the program. For

Photo: Steven E. Gross and Associates

example, they need to know if workshops and presentations are addressing topics that are important and relevant to teachers and are providing them with adequate opportunities to develop new skills.

At several junctures, it is possible to gather information that is essential to the success of professional development. School and district personnel have the ability and the need to collect information about the effectiveness of the professional development they plan and conduct. This newsletter provides a practical guide for evaluating the effectiveness of all stages of professional development and for using that information to manage the effort.

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ABOUT *NOTES & REFLECTIONS*

Welcome to *Notes & Reflections*, our newsletter for professional development providers. *Notes & Reflections* offers practical information—ideas, strategies, tools, and resources—about topics of special interest to professional developers who are working to improve school performance.

Today, professional development services to schools are provided by variety of people: teacher leaders; principals; and district, regional, and state education staff—to name just a few. If you are one of these providers, *Notes & Reflections* will help you build your capacity to plan and implement powerful professional development.

Since the publication of Issue 3, *Notes & Reflections* has been published electronically. It is available only through the *Notes & Reflections* Web site at **www.ncrel.org/info/notes/**. The Web version of the newsletter provides the opportunity to link to additional information and resources on this issue's topic as well as previous issues.

If you wish to be added to our electronic mailing list and notified when the next issue is available, please send your name and e-mail address to **notes@contact.learningpt.org** or call 800-356-2735.

Linda Miller, Editor

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EVALUATION: AN ESSENTIAL TOOL FOR MANAGING PROFESSIONAL DEVELOPMENT

Picture this: A school improvement team at a middle school identifies the need to increase student achievement in science. After undertaking a careful review of the specific areas for improvement, they decide to phase in a science curriculum based on an inquiry approach to instruction. To make this transition, the school begins offering professional development through an external service provider. The eight science teachers are enthusiastic about the approach at first, but they soon encounter a number of difficulties as they try to implement it. As the date for state assessments approaches, the eight teachers decide to revert to their former lecture-based instructional style in order to "give over" the information more efficiently. What is going wrong here?

In this example, both the teachers and the professional developer were excited about and committed to the stated improvement goals but the improvement efforts were unsuccessful. Nevertheless, the director of professional development could not respond to the difficulties of the teachers because no one was keeping track of how well they were able to implement the training. For situations like this, it is essential to evaluate professional development to ensure that the school is making progress towards its goal of improving student achievement.

One reason to evaluate is to learn how to improve the effectiveness of the actual professional development session. To begin with, evaluation helps the professional development provider adjust the level of difficulty and the focus of the workshops or activities to match the needs of the participants. Also, evaluation helps verify that teachers are learning the intended knowledge and skills. In summary, evaluation helps to adjust the learning experience to

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> *Carpentersville, Illinois*

serve the goals of the school and the needs of specific teachers. In the words of Dr. Larie Godinez, director of professional and program development at Community Unit School District 300 in Carpentersville, Illinois, "One size doesn't fit all—not for kids and not for adults. [Evaluation] can gear the professional development towards needs of the adult learners. The more information we have, the better choices we make."

A second reason for evaluation is to determine the effectiveness and impact of professional development on teachers and students. Impact on teachers can be determined by observing the extent and quality of their implementation of new techniques in the classroom. This observation often uncovers a gap in the training or a logistical obstacle preventing a teacher from putting the professional development into practice. The bottom line in evaluating impact, however, is whether the professional development had its intended effect on student learning. Demonstrating effectiveness encourages participating teachers to persist with learning and implementing new techniques—and encourages nonparticipating teachers to jump on the successful bandwagon. In addition, the parents and citizens whose taxes support the school will want to know whether the cost of professional development is money well spent. All of these stakeholders have the

desire—and the right—to be informed about the progress of professional development. Although the professional development director and facilitators are rarely in the position to document scientific proof of effectiveness, they can provide a wealth of information that can offer persuasive evidence for its value and worth.

Unfortunately, many directors and providers of staff development think about collecting pertinent information only when they are called on to provide this sort of evidence. At this point, however, amassing the evidence that will document months or years of professional learning is often difficult and costly. Planning ahead for evaluation, in contrast, can make the process much easier and less expensive. For this reason, it is helpful to have an overview of the entire process of evaluation before beginning any new professional development initiative.

In his book *Evaluating Professional Development*, Guskey (2000) describes five levels of evaluating professional development, which correspond to five expected outcomes of professional learning. These outcomes and levels are summarized in Table 1.

Level 1 is the evaluation of the teachers' initial reactions to the professional development activity. Level 2 is the evaluation of the immediate impact of the event on teacher learning; it focuses on whether teachers have indeed learned the intended knowledge and skills of the activity. Level 3 is the evaluation of the school organization's efforts to support teachers as they put their learning into practice. Level 4 evaluates the implementation of the learning, such as the quality and frequency of use in the classroom. Finally, Level 5 is the evaluation of whether a successfully implemented program actually improved student learning. Although this level is the last to be observed, it must be the first in thought: Professional development must be directed towards improving student achievement. For this reason, professional development should be preceded by a careful examination of student data to identify those goals, as called for in the *Standards for Staff Development* developed by the National Staff Development Council (NSDC, 2001).

The following sections of this newsletter explain how to use evaluation to help manage and improve professional development. Many of the techniques described here are perfectly suited for the purpose of gathering evidence of the impact and value of the professional development as well. Because this newsletter is geared towards school-, district-, and regional-level leaders, it presents evaluation techniques that are relatively simple to conduct.

Table 1. Professional Development Outcomes and Levels of Evaluation

Professional Development Outcomes	Teachers participate in professional development activities.	Teachers gain new knowledge and skills.	The organization supports the use of new knowledge and skills.	Teachers attempt to implement what they learned.	Students benefit from improved instruction.
Levels of Evaluation	Level 1: Evaluate teacher reactions.	Level 2: Evaluate teacher learning.	Level 3: Evaluate organizational support.	Level 4: Evaluate classroom implementation.	Level 5: Evaluate student learning outcomes.

LEVEL 1: EVALUATE TEACHER REACTIONS

Much can be learned about the quality and appropriateness of professional development events and activities by evaluating the reactions of participants. The point is not to understand the long-term impact but to determine if the professional development had the intended short-term impact. This basic level of evaluation focuses on whether participants liked the event and found it useful and worthwhile. This information is far from trivial, because teachers are unlikely to participate actively unless the professional development meets their needs.

Topics to Investigate

Participants can be asked to assess their reactions to the content, process, and context (Guskey, 2000) of the professional development event, as follows:

• **Content.** The *content* of an event, workshop, and activity is the topic it addresses. Did the teachers perceive that the topic was relevant to their professional learning goals and applicable in their classrooms? Did the presentation assume an appropriate level of prior knowledge on the topic?

• **Process.** The *process* of professional development is the way in which the material was presented. Did participants have the opportunity to participate actively? Did they have an opportunity for peer discussion? Was the presenter organized and knowledgeable? Was the pace appropriate? Were the teachers adequately prepared with background reading in order to participate?

Tip: Identify Participant Background

At all levels of evaluation, identifying the *background* of the participants themselves—such as their subject area, years of experience, and school or classroom level—is important. This information helps to target the training to specific groups of teachers. For example, a principal at an elementary school observed that new teachers who had recently graduated did not need as many workshops on differentiated instruction as other teachers because most of them already had received such training during their preservice education.

• **Context.** The *context* is background to the event. Were the facilities and equipment adequate for supporting the learning during this session?

An important additional aspect to assess is attendance—namely, who showed up at the event. Evaluation pros call this aspect *service utilization*. If teachers are not attending a service, there is no point in looking at its effectiveness. This information needs to be gathered at the event, although it can be most useful later on to explain differences in the quality of implementation.

How to Use the Information

Participant reactions can be used in the following ways to make common-sense decisions about the delivery of the professional development:

• **Adjust and refine the training.** Initial reactions to the format of the event and its context can be used to adjust or fine-tune the workshop or activity to the needs of the participants. It is useful to have participants write their reactions on forms, which can be examined in the middle of the activity (e.g., after the first day of a two-day event) as well as at the end. These reactions can identify areas of the presentation where participants need more depth of discussion or help with particular skills. For example, participants may request more time on certain topics or greater opportunity for peer discussions.

• **Identify unserved groups.** Comparing the reactions of different groups of participants (e.g., new teachers and "veterans") can identify participants who need a different type of service. For example, some teachers may need additional workshop time, whereas others may be beyond that stage of learning. (See the tip "Identify Participant Background" at left.)

• **Provide quality control.** Sometimes a district or local agency may work with several different providers of the same type of service (e.g., three different facilitators of a guided reading workshop). Evaluations help ensure that sessions conducted by different consultants are consistent in quality, according to teacher ratings.

• *Learn about the school.* For the professional development provider, reactions help to illuminate the context of the school, as reflected by the concerns and needs that participants express.

How to Get the Information

Surveys. Surveys such as the "Participant Reaction Survey" (below), are the typical means to obtain participant reactions.

Some items on surveys can be *fixed response*, in which the respondents rate statements on a scale (e.g., a 5-point "agree" to "disagree" scale). Other items are best to leave as *free response*, in which the respondent answers the question (e.g., "What did you like best about the workshop?") in his or her own words. Surveys that assess participant reactions are available from a variety of sources. It also is possible to construct specific questions about the workshop.

Tool: Participant Reaction Survey

The following participant reaction survey is a brief but useful guide for the format and phrasing of survey questions.

1. When considering your experience participating in [insert name of professional development], how much do you agree or disagree with the statements below?

Statement	1 Strongly Disagree	2	3 Neutral	4	5 Strongly Agree	N/A or Unsure
A. I gained new knowledge and/or skills that I can apply in my current position. (content)						
B. The content of the sessions addressed real-life job situations I encounter. (content)						
C. When participating in the sessions, I had an opportunity to learn from my peers. (process)						
D. The pace of the service was about right. (process)						
E. I had adequate help and support from the facilitator. (process)						
F. The visual aids (e.g., overheads, videos, multimedia presentations) contributed to my learning during the service. (context)						
G. The equipment functioned well, posing no problem to the learning experience. (context)						

2. Please rate the professional development in terms of the following:

	Excellent	Good	Fair	Marginal	Poor
A. Organization of the content					
B. Timeliness of the information for my professional practice					
C. Presentation and facilitation					

3. What did you like most about the sessions? _____

4. What could be improved about the sessions? _____

Tip: Postevent Surveys

One of the most useful end-of-session feedback questions is to ask whether the session met its objectives. The professional development facilitator must establish clear objectives for the session and to communicate those objectives publicly to the participants beforehand. At the end of the session, the participants can rate the extent to which the session met its objectives, along with how much they *value* the objectives. In this way, the facilitator can discover if the participants felt that the purpose of the session was important to them in the first place.

Surveys have benefits and drawbacks. On the plus side, they are fairly easy to distribute and provide a low-cost way to collect information. On the minus side, experts in evaluation agree that the collected information is not always valid. Some participants may be hesitant to report negative reactions to events. Some participants may not be motivated to answer the questions completely. For these reasons, it is wise not to rely upon survey results alone when assessing reactions—or any other stage of professional development.

The following suggestions can be used to increase the rate and quality of survey responses:

• *Provide time.* Provide time for participants to fill out the surveys as part of the workshop. If possible, collect the surveys in person.

• *Create accountability for completion.* Have participants quickly initial a sign-out sheet (i.e., a list of printed names) as they hand in their surveys.

• *Ensure confidentiality.* Assure teachers that their responses are completely confidential and that the only purpose for the survey is to help target the professional development service to their needs.

Interviews and Focus Groups. For the school-based professional development director, informal interviews with the participants are a useful way to learn about their reactions. The purpose of these interviews is to get a richer sense of how certain participants reacted to the professional development services. The format of the questions typically is open-ended, such as "How do you feel about the profes-

sional development?" and "What has been most helpful?" Of course, the interviewer should inform the teachers that the purpose is merely to adjust the professional development services to the needs of the school.

Several techniques are helpful for getting participant reactions with postevent interviews. If the group is not too large (e.g., 12 participants or fewer), an informal whole-group discussion might be possible. For larger groups, it usually is better to create small discussion groups of two to four participants and have each group report on their reflections orally or in writing. (Additional resources for conducting these interviews and focus groups are listed below.)

Additional Resources for Evaluating Teacher Reactions

Professional Development Modules

www.oerl.sri.com/module/

The Online Evaluation Resource Library (OERL) offers a series of online professional development modules for novice evaluators who want to learn more about developing written surveys.

Teacher Education Instruments

www.oerl.sri.com/instruments/te/teachwork/instrTE_teachwork.html

The OERL Web site lists numerous sample instruments for evaluating workshops.

What Are Focus Groups?

www.ncrel.org/info/notes/fall02/focus.htm

Notes & Reflections Issue 3 discusses how to conduct focus-group interviews.

LEVEL 2: EVALUATE TEACHER LEARNING

The second level of evaluation is to assess whether the participants are learning the knowledge and skills that they will need to improve their teaching in the desired manner. Proper learning of knowledge and skills must precede implementation. If learning did not take place, the professional development activities will need to be refocused or expanded. Although this learning may be assessed to some degree directly after the workshop or event, typically several months may be necessary before one can reasonably expect participants to have attained many learning goals. The careful director of professional development will be sure to assess teacher learning continuously from a variety of sources (NSDC, 2001).

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Tip: Inform Participants About Learning Evaluation

Informing participants prior to a professional development event that they will rate their amount of learning at its conclusion often motivates better focus and participation. Apparently, this reminder sets forth the expectation that teachers will learn something, thereby increasing their interest (Guskey, 2000).

Topics to Investigate

Several types of learning are useful to assess:

• *Teacher Knowledge.* Knowledge encompasses specific subject content (e.g., deeper conceptual understanding of mathematics) as well as the rationale for pedagogical approaches (e.g., cooperative learning or use of classroom assessment). For teachers, understanding the rationale for the skills being learned in the course of professional development predicts the ultimate success of the reform effort (Cohen & Hill, 1998).

• *Teacher Skills.* Skills are the classroom methods and techniques that are the basis of the planned instructional reform, such as reading comprehension strategies or problem-solving techniques. Assessing the teacher's readiness to use a skill in the classroom is helpful, especially if the goal of the particular professional development activity is to attain that level of skill.

• *Teacher Attitudes and Beliefs.* A change in practice often depends upon a change in pedagogical attitudes or beliefs. Consider a school that wishes to promote cooperative learning. To properly implement this approach, teachers may need to believe that learning is a social activity and that students need to be enmeshed in a social network to articulate their thoughts and give one another feedback. If teachers adhere to a different belief about learning—for example, that learning is a process of acquiring isolated facts—they are unlikely to use cooperative learning effectively. For this reason, evaluating teacher attitudes and beliefs is helpful.

How to Use the Information

Participant learning from the professional development activity may be used in the following ways:

• *Clarify rationale.* The attitudes and beliefs of teachers can identify areas of the project's rationale or theory that need to be clarified.

• *Define next steps.* One of the main functions in evaluating learning is to identify what the next step in the professional development should be. If there is a gap in the knowledge about certain concepts, arranging for additional readings or small study groups may help fill in the gaps. If some teachers have not yet acquired the skill to implement a new technique, additional modeling or coaching may be arranged.

• *Refine training*. Evaluating whether the participants learned what the professional development intended to teach confirms if the training has been successful and identifies where it is lacking. If many participants report no growth in their knowledge or do not indicate an understanding of the value of the program, the program has a need for improvement somewhere.

How to Get the Information

Fixed-Response Surveys. Surveys with fixed-response items are an indirect way to assess learning of knowledge and skills and changing of attitudes and beliefs. One way of approach to evaluating knowledge is to have participants rate their preparedness to implement each skill in the classroom. One way of evaluating beliefs is to have the participants rate their agreement with various statements. (See the sample survey items at the bottom of the page.)

Open-Ended Questions. The most direct way to assess learning after an event is with open-ended response items, as in the following examples:

• "List two or three Big Ideas that you learned today about [insert TOPIC]."

This question reveals what ideas clicked with the participants. It is particularly helpful to find out if an idea didn't click by virtue of its absence.

• "List the questions that you still have about putting this information into practice."

Responses to this question help to determine next steps by identifying the unique concerns that teachers have.

Observation of Simulated Lessons. Another way to assess participant learning is to observe teachers practicing

Tip: Presurveys and Postsurveys

One powerful technique of demonstrating change in teacher knowledge, skills, or attitudes is to administer the same survey twice—before and after the professional development service. Increases in self-ratings of skills or beliefs provide some evidence that the training program is working.

newly learned skills in a simulated classroom experience. Whenever evaluating skill use through observation, it is necessary to have clear criteria for competent performance of the skill. These criteria need to be made explicit to the learners and should be modeled to them as well (Guskey, 2000). For this same reason, it is useful to have an evaluation form that lists these criteria for the observer.

Additional Resources for Evaluating Teacher Learning

See "Evaluation Resources on the Web" on page 16 for links to additional examples of instruments that assess participant knowledge, skills, attitudes, and beliefs.

Sample Survey Item for Rating Teacher Knowledge and Skill

Please rate your level of knowledge and skill:	Little knowledge	Know of this, but am not prepared to put into practice	Am now actively planning to implement	Using the strategy, but working on logistical concerns	Routinely use and satisfied with how it is going
1. Manage students engaged in project-based work					

Sample Survey Item for Rating Teacher Attitudes and Beliefs

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Vocabulary knowledge is an important part of reading comprehension.					

LEVELS 3 AND 4: EVALUATE ORGANIZATIONAL SUPPORT AND CLASSROOM IMPLEMENTATION

Evaluating organizational support and evaluating classroom implementation are intricately related. The amount and the effectiveness of organizational support affect how well teachers understand and apply new knowledge and skills, which in turn affects how well teachers implement their new learning in the classroom. Evaluating classroom implementation also identifies the components of an instructional reform on which teachers need additional help.

The role of the director of professional development at a school or district is to provide the organizational support for implementation. Such support comes in many forms, including resources, time, verbal encouragement, and organizational policies. Without such support, implementation may falter—even if the professional developments events themselves achieved their goals for teacher learning. For this reason, Guskey (2000) and others advocate for an explicit evaluation of organizational support. Unfortunately, many instructional leaders and professional development directors find it difficult to directly evaluate their own organization, for a variety of reasons. To meet their needs, this section of the newsletter describes techniques for evaluating classroom implementation in a manner that illuminates areas where organizational support is necessary.

When observing implementation, it is necessary to determine the key indicators of the proper use of a practice. Consider a school that is attempting to improve the guided reading component of its balanced literacy approach. Indicators of implementation may be the quality of teacher responses to reading errors and the appropriate use of learning centers. With highly specific indicators, it is possible to ask specific questions and obtain meaningful data. These indicators, however, are useful only if the teachers understand them as well; otherwise, teachers will not have clarity about what constitutes correct classroom use of a new technique. The description of indicators depends on the level of the professional development. At early levels, it is useful to look at the outward signs of the attempt to adopt the practice. At a later level, the evaluator will want to focus on indicators of the quality of use.

Topics to Investigate

Assessments of implementation ask the following questions:

• How frequently are teachers using the strategy?

• How appropriately are teachers applying the strategy to the classroom?

• Are teachers implementing all components of the particular reform?

• What sort of concerns do teachers have about implementation, and how can the school or district respond to those concerns?

• Has the classroom environment changed to support the new methods or techniques?

How to Use the Information

From the perspective of the professional development director, the main purpose of evaluating implementation is to identify the components on which teachers require additional training and the components on which they have achieved a degree of competency and regularity. The answers to the above questions primarily are used to start conversations with teachers about what they still need in order to implement the practice. By the same token, the mere fact that administrators are committed to evaluating implementation may be a motivating factor for teachers because it introduces accountability. Finally, evaluating the level of implementation helps to judge whether teachers are ready for the next stage of the overall professional development plan.

How to Get the Information

The following specific techniques can be used to evaluate classroom implementation:

Hallway Walks. Hallway walks are brief classroom visits to observe the specific classroom behaviors that indicate proper implementation. The observer usually visits three to five classrooms in an hour. At this rate, data from the entire school or district can be collected over a week or two, giving the school leadership a good sense of the overall implementation.

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The way to conduct a hallway walk is fairly simple. First, create a hallway-walk checklist listing the key indicators of the proper use of a practice. (See the sample checklist below.) Be sure to specify the teacher and student behaviors and classroom features that demonstrate those indicators. Next, schedule time for the principal or teacher leaders to conduct the hallway walks. Provide the principal with copies of the checklist to be used for the classrooms observed.

Classroom teachers should be informed about their visitors in advance so they may coordinate a time to observe a particular lesson. Also, the evaluators should make clear to teachers that the observation is only to observe implementation and is not related to formal teacher evaluation. When all of the data is collected, it is useful to create a summary of the proportion of classrooms that adequately implemented each indicator.

Classroom Observations. In contrast to hallway walks, a traditional classroom observation typically focuses on one teacher at a time. The point of the observation is to follow the progress of a teacher in learning a new technique, and to

provide ongoing feedback and support. *Notes & Reflections* Issue 5, "Teacher Collaboration Supports Instructional Change" provides tips and tools for doing teacher observations. It is available online (www.ncrel.org/info/notes/fall03/index.html).

Lesson-Plan Observations. Viewing lesson-plan notebooks is an ideal complement to directly observing classrooms. These documents allow the evaluator to review entire weeks of lessons at a time. Such a perspective is useful for noticing ongoing patterns of instruction. For example, Ying Ying Chen, principal of Prairie Ridge Elementary School in Cedar Rapids, Iowa, examined one week of reading lesson plans for teachers who were implementing a balanced reading approach. This examination revealed an absence of lessons on word analysis. Principal Chen obtained additional assistance for her teachers in this area of instruction.

Teacher Concerns. Teachers' concerns about implementing the strategy are a guide for how to provide follow-up support. Typical stages of concern about implementation are specified in the Concerns-Based Adoption Model

Tool: Hallway-Walk Checklist

K–1 n=4	2 n=3	3 n=3	4 n=3	5 n=3	Totals N=16	Instructional Practices (less desired practices in italics)
Place a tally mark in each cell for each teacher at the grade level observed using the practice. Combine K with Gr. 1 if there is only one K teacher.					*Tally for all grades/N*	
						1. Individual self-selected reading
						2. Round-robin reading
						3. *Whole-group phonics lesson*
						4. Teacher holds writing conference
						5. *Whole-group textbook lesson on mechanics*

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(Hord, Rutherford, Huling-Austin, & Hall, 1987). The model identifies three broad classes of concern (self, task, and impact), each of which may signal a different need of the teacher for the organization to support. Ruth Mueller, director of the Leadership Institute for School City of Hammond in Indiana, uses this model to understand what sort of support her teachers need. For example, teachers who are struggling to manage the new strategy—preparation and execution—may require additional coaching and modeling and the opportunity to participate in study groups. Mueller states that "real conversations with teachers [provide] real evidence of what is going on. Listen to what they're saying. They don't even have to know you're listening per se, because you sit in on workshops with them."

Professional development workshops and follow-up sessions are ideal opportunities to listen to teachers, especially the questions they ask of the presenter and the comments they make about their attempts to implement strategies in the classroom. Another opportunity to listen to teachers is when they discuss student work. The types of difficulties and student reactions that are presented during these sessions say a lot about each teacher's level of concern about and extent of implementation. A third way to listen to teachers is to ask direct questions about their experiences. Principal Chen, for example, asks her teachers on a weekly basis, "What support do you need from us? What information do you need?" Scheduling more formal interviews with teachers is another way to find out about their concerns.

Teacher Surveys. Teachers can rate their level of use for each component of the instructional reform. (A useful rating scale for teacher implementation is presented below, and a sample teacher survey is presented on page 12.)

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Evaluation experts at Learning Point Associates have noted that teacher surveys do not always give an accurate picture of the quality and extent of implementation, however. Teachers often have difficulty knowing if they are meeting the indicators for quality. For this reason, teacher surveys should serve as supplementary information, not the sole source of the evaluation.

The survey format also is a way to assess the adequacy of a school's support for implementation of new techniques. Teacher feedback should be requested in this area.

Student Work. The effective use of many kinds of instructional techniques will be directly reflected in student work. For example, the implementation of a mathematics curriculum that emphasizes problem solving will be demonstrated by students solving real-life, open-ended problems with a number of different strategies.

Student Surveys. Another use of surveys is to ask students directly about how often they engage in certain classroom activities. These assessments can be used to track change over the course of the reform effort. (A sample student survey is presented on page 13.)

Additional Resource for Evaluating Organizational Support and Classroom Implementation

Concerns-Based Adoption Model

www.nas.edu/rise/backg4a.htm

This Web page, provided by the National Academies, includes a chart that lists seven stages of concern, along with comments that teachers often make at each stage.

Rating Scale for Teacher Implementation					
Strategy	No plans to begin using yet.	Am making plans to use soon.	Have started using but not routinely.	Use routinely.	Use regularly and am comfortable modifying as needed.
Strategy [x]					

Tool: Sample Teacher Survey on Implementation of Strategic Reading

The purpose of this survey is to gather information about the extent to which teachers have been implementing strategic reading in their classrooms. The results of this survey will be used to plan future professional development sessions. Please answer all questions as well as you can.

1. How would you rate your general knowledge and experience with strategic reading?
(Please check the one response that is most accurate for you.)
❏ Beginner/novice (have little or no knowledge and very limited experience)
❏ Intermediate (know the approach and have used it)
❏ Veteran (am very familiar with the approach and use regularly in my classroom)

2. How many times have you worked with a strategic reading coach this year (the 2003-04 school year)?
(Check the most accurate response.)
❏ Not yet   ❏ 1–2 times   ❏ 3–4 times   ❏ 5–6 times   ❏ More than 6 times

3. Are you able to set aside regular time to plan how to incorporate strategic reading in your classroom?
(Check one response.)
❏ Yes, definitely.   ❏ No, not having planning time is a real problem.
❏ Not enough, but I still manage with the time I have.

4. Please indicate your current level of use for each of the strategic reading strategies listed below.

Strategy	No plans to begin using yet.	Am making plans to use soon.	Have started using but not routinely.	Use routinely.	Use regularly and am comfortable modifying as needed.
a. Think-aloud					
b. Predicting					
c. Summarizing					
d. Making inferences					
e. Graphic organizers					
f. Reciprocal teaching					

5. To what extent do you agree with the following statements? (Check one response per item.)

	Strongly Disagree 1	2	Neither Agree nor Disagree 3	4	Strongly Agree 5
a. My students are comfortable working in groups.					
b. My students are able to articulate their reading strategies.					
c. My students are able to use these reading strategies independently.					
d. Classroom management is difficult when I use strategic reading strategies.					
e. Lesson planning takes longer for strategic reading.					

Tool: Sample Student Survey on Integrated Mathematics

During the past school year, you have been a part of a pilot mathematics class called Integrated Mathematics. The Public School District is interested in learning what you think about this class—the types of instructional activities that have taken place in this class as well as your attitudes towards math.

In your mathematics lessons, how often are you asked to do the following?

	Never or Almost Never	Some Lessons	Most Lessons	Every Lesson
1. Explain the reasoning behind an idea	❏	❏	❏	❏
2. Represent and analyze relationships using tables, charts, or graphs	❏	❏	❏	❏
3. Work on problems for which there is no immediately obvious method of solution	❏	❏	❏	❏
4. Work in class on projects and/or investigations that take a week or more	❏	❏	❏	❏
5. Write equations to represent relationships	❏	❏	❏	❏
6. Solve equations	❏	❏	❏	❏
7. Practice computational skills	❏	❏	❏	❏

8. How many times is math homework assigned to you each week? (Circle your answer.)
   Never   Less than once   1–2 times   3–4 times   Every day

9. When you are assigned mathematics homework, about how much time do you usually spend on it? (Circle your answer.)
   None   15 min. or less   15 to 30 minutes   30 min. to 1 hour   More than 1 hour

The following is a listing of ways teachers sometimes use to assess students (i.e., give them grades). Which of the following are used in your Integrated Mathematics class?

	Yes	No	Don't Know or Unsure
10. Closed-choice tests (e.g., multiple choice, true/false)	❏	❏	❏
11. Essay or short-answer tests	❏	❏	❏
12. Hands-on or performance assessments	❏	❏	❏
13. Student assignments	❏	❏	❏
14. Portfolios	❏	❏	❏
15. Student Projects	❏	❏	❏
16. Journals	❏	❏	❏

For each of the following statements, mark the response that most closely represents your thinking.

	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't Know or Unsure
17. I enjoy learning math.	❏	❏	❏	❏	❏
18. Math is important to everyone's life.	❏	❏	❏	❏	❏
19. I would like a job that involved using math.	❏	❏	❏	❏	❏
20. Math classes are more important for boys than girls.	❏	❏	❏	❏	❏
21. Because of integrated mathematics, I plan on taking more math classes beyond my required credits.	❏	❏	❏	❏	❏

LEVEL 5: EVALUATE STUDENT LEARNING OUTCOMES

After verifying that teachers are implementing their professional development learning, it is vital to confirm that the new methods are having the intended effect on the students. Successful evaluation of student outcomes begins with three questions:

- What are the criteria for success of the program?
- What evidence will convincingly demonstrate these performance criteria?
- How often is it desirable to evaluate these criteria?

For the first question, evaluators must determine what behaviors of students indicate that they are learning in the desired way. In determining the criteria for success, it is crucial to specify a list of indicators for student performance, just as it is necessary to specify indicators for successful implementation. These criteria should reflect the local and state standards for student achievement towards which schools must demonstrate progress.

The answers to the second and third questions obviously depend on the specific goals of the program and the informational needs of the evaluator.

Topics to Investigate

Questions about the impact on students should focus on the following areas:

- *Student Proficiency and Knowledge.* Most goals for student learning aim to enhance proficiency for a certain skills or set of skills, such as reading comprehension, algebraic formulas, or essay writing. Another highly valued student outcome is to improve academic knowledge in a specific content area, such as U.S. history or chemistry.

- *Engaged Learning.* Another goal is student engagement in the learning task. *Engagement* refers to the way that students interact with the subject. Engaged students are energized by their learning tasks, enjoy working on the topic, and set personal goals for their learning (Jones, Valdez, Nowakowski, & Rasmussen, 1994).

- *Student Beliefs and Attitudes.* Many instructional reforms have the goal of changing student beliefs and attitudes about a subject. For example, an inquiry-based science program may have the goal of showing the relevance of science for every person. Another goal may be to alter students' gender stereotypes about science.

How to Use the Information

The improvement of student learning is the ultimate purpose of any professional development effort. Demonstrating improvements in student learning provides feedback to teachers that their efforts to improve their teaching have paid off. Also, evidence of student progress toward learning goals demonstrates to parents and other stakeholders that the curricular and instructional approach is working and worth the money. If the evaluation does not demonstrate student improvement, the professional development director needs to consider ways to improve efforts.

How to Get the Information

Classroom Assessments. Assessments such as tests and quizzes, which teachers regularly use in their classrooms, often are well-aligned to the curriculum and provide an up-to-date picture of student performance. Yet these sources of data typically vary from classroom to classroom and year to year, making them unsuitable for pooling data from an entire school or district. Schools can overcome these limitations by creating a single series of tests for all classrooms to use. The collaborative effort of teachers is needed to ensure that each test includes items that adequately sample the topics in the curriculum, that questions are worded clearly, and that the grading criteria are well-defined. For these reasons, it is often desirable to field-test these assessments before their actual use (Killion, 2002).

Student Portfolios. Another direct way to assess student learning is to periodically collect samples of each student's work into a portfolio. Such portfolios allow teachers to view the progression of quality of the work over time. To this end, each work sample should be labeled by date as well as by type of task that it represents (e.g., a fictional story or an autobiographical essay). The frequency of collection may depend on how far along the professional development process is. When the implementation is just beginning, a weekly examination of student work may be useful to determine whether the new classroom techniques are having the desired impact on students. If the implementation has stabilized, the frequency of analyzing portfolios may decrease to once per quarter or semester.

To be useful for evaluation of student progress, the work collected in portfolios needs to be interpreted. For example, teachers can participate in study groups that examine

student work and identify overall areas of strength and weakness. Another use of the portfolios is to demonstrate educational progress to parents and students. Portfolios also provide an opportunity to involve students and parents in the assembly of the portfolio by asking them to decide which samples of student work should be chosen.

Student Surveys. One way to evaluate student engagement is to ask students directly about their enjoyment of the topic and the degree to which they are interested in the tasks they do as part of their coursework. Attitudes and beliefs also can be evaluated in this fashion, with questions that address students' perceived competence in the course, beliefs about the importance of the subject, and other questions of interest. Finally, students can rate their own perceptions about how much they have learned. The "Sample Student Survey on Integrated Mathematics" (page 13) illustrates these items.

School Records. School records often are helpful for demonstrating student engagement. Examples include attendance records for particular classes, rate of assign-ment completion, and percentage of students who complete a certain academic level, such as advanced algebra.

Additional Resources for Evaluating Student Outcomes

Kuhs, T. M. (1997). *Measure for measure: Using portfolios in K–8 mathematics.* Portsmouth, NH: Heinemann.

Stiggins, R. (1997). *Student centered classroom assessments* (2nd ed.). Columbus, OH: Merrill.

Wiggins, G., & McTighe, J. (1998). *Understanding by design.* Alexandria, VA: Association for Supervision and Curriculum Development.

Williams, J. (2000). Implementing portfolios and student-led conferences. *ENC Focus*, 7(2), 21-23. Retrieved February 17, 2004, from http://www.enc.org/features/focus/archive/assessment/document.shtm?input=FOC-001560-index

ORGANIZING THE EVALUATION

Before beginning the evaluation, it is crucial to plan all of its steps to ensure that no opportunity to collect information is lost. (See the "Sample Evaluation Organizer" below.) For each level of the evaluation, it is necessary to specify the following information:

• **Evaluation information and data that are needed:** What questions do we want answered?

• **Data collection method:** How will the information be gathered?

• **Who is responsible:** Who will develop the instruments, administer them, analyze data, and write the report?

• **What resources are needed:** How much time, money, and staff time are necessary?

Tool: Sample Evaluation Organizer

Evaluation Level	Evaluation Information and Data Needed	Data Collection Method	Responsibility	Resources
Level 1: Teacher Reactions	Did teachers think the workshop went well?	End-of-workshop surveys	Rachel	2 hours of staff time
Level 2: Teacher Learning	Will the district provide planning time?	Content survey	Holly	12 hours to create survey and analyze
Level 3: Organizational Support	Did they learn the content?	Will know if they do it	Jocelyn will speak to a sample of teachers	2 hours
Level 4: Classroom Implementation	Are teachers using the new strategy in the classroom?	Use a common observation protocol	Jim will lead a group of five teachers	Subs for teachers doing observations
Level 5: Student Learning Outcomes	Did test scores go up?	Via test results in June	N/A; Jim will discuss test results	3 hours of preparation time

References

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Guskey, T. R. (2000). *Evaluating professional development.* Thousand Oaks, CA: Corwin.

Hord, S. M., Rutherford, W. L., Huling-Austin, L., & Hall, G. E. (1987). *Taking charge of change.* Alexandria, VA: Association for Supervision and Curriculum Development.

Jones, B., Valdez, G., Nowakowski, J., & Rasmussen, C. (1994). *Designing learning and technology for educational reform.* Oak Brook, IL: North Central Regional Educational Laboratory.

Killion, J. (2002). *Assessing impact: Evaluating staff development.* Oxford, OH: National Staff Development Council.

National Staff Development Council (2001). *Standards for staff development.* Oxford, OH: Author. Retrieved February 17, 2004, from http://www.nsdc.org/standards/index.cfm

Evaluation Resources on the Web

Standards

National Staff Development Council

www.nsdc.org

The National Staff Development Council offers *Standards for Staff Development* (www.nsdc.org/standards/index.cfm), and a Self-Assessment and Planning Tool (www.nsdc.org/standards/about/assessment.pdf) for assessing the implementation of those standards. It also provides a wide range of resources for evaluating the design of professional development programs, including a Web page on Evaluation (www.nsdc.org/standards/evaluation.cfm), which has an annotated bibliography.

Planning and Organizing the Evaluation

Designing an Evaluation: Methodological Approach and Sampling

www.oerl.sri.com/module/mod4/m4_p1.html

The Online Evaluation Resource Library offers a step-by-step guide to designing an evaluation.

Evaluating Whole-School Reform Efforts: A Guide for District and School Staff

www.nwrac.org/whole-school/index.html

This guidebook from the Northwest Regional Educational Laboratory provides extensive advice for conducting evaluations of program implementation and impact.

Journal of Staff Development

www.nsdc.org/library/publications/jsd/

The Fall 2003 issue of the *Journal of Staff Development* is devoted to evaluation. It includes an article by Joellen Killion titled "8 Smooth Steps: Solid Footwork Makes Evaluation of Staff Development Programs a Song" (www.nsdc.org/library/publications/jsd/jkillion244.cfm). Also, see the Fall 1998 article by Thomas Guskey titled "The Age of Our Accountability: Evaluation Must Become an Integral Part of Staff Development" (www.nsdc.org/library/publications/jsd/guskey194.cfm).

Instruments

Local Systemic Change (LSC) Instruments

www.horizon-research.com/LSC/manual/0304/

This Web site contains all of the instruments used by Horizon Research Inc. to evaluate the Local Systemic Change initiative of the National Science Foundation. The instruments include surveys, interview protocols, and observation protocols.

Online Evaluation Resource Library (OERL) Evaluation Instruments for Teacher Education Projects

www.oerl.sri.com/instruments/te/

The Online Evaluation Resource Library presents numerous examples of evaluation instruments, including surveys, interview protocols, observation protocols, and assessment of content knowledge.

Evaluation Resources in Print

Beyer, B. K. (1995). *How to conduct a formative evaluation.* Alexandria, VA: Association for Supervision and Curriculum Development.

Guskey, T. R. (2000). *Evaluating professional development.* Thousand Oaks, CA: Corwin Press.

Guskey, T. R. (2002, March). Does it make a difference? Evaluating professional development. *Educational Leadership*, *59*(6), 45-51.

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King, J. A., Morris, L. L., & Fitz-Gibbon, C. T. (1987). *How to assess program implementation.* Newbury Park, CA: Sage.

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Notes & Reflections