Section 4:

Evaluation of Professional Development

Overview

An essential component of professional development activities involves ongoing and systematic evaluation procedures. Few efforts have been made to evaluate the results of professional development beyond the brief responses requested at the conclusion of workshops which assess participant reaction to the session (see box). It is an especially critical time for the adult education field to emphasize the evaluation of professional development for at least two reasons:

- Given the certainty of diminishing resources and competing priorities, the luxury of unfocused and unexamined professional development no longer exists. Increasing participation and financial support by non-educational partnerships are bringing to adult education new demands for accountability.
- If adult education practices are to respond to rapidly changing technological and social structures, professional development is the primary vehicle for meeting that challenge. Sound information is needed to make thoughtful decisions on how to change directions.

The focus of this section is to examine methods and procedures for identifying what changes have taken place as a result of professional development and determining whether intended goals have been achieved. This section also suggests specific and practical ongoing evaluation activities that should be incorporated within all professional development efforts. The information is designed to assist professional development

In a meta-analysis of the results of professional development, Wade (1985) concludes: "few accounts present concrete evidence of its (professional development) effects on teachers and students." Likewise, Loucks and Melle (1982) note that "most staff development reports are simply statements of participant satisfaction."

coordinators, administrators at all levels, instructors, and other interested practitioners in developing ongoing evaluations of professional development activities. We present an evaluation framework that is appropriate for all approaches to professional development. The framework emphasizes that evaluation is continuous rather than a single event — especially not just a single event that occurs at the end of professional development activities.

A Framework for Evaluating the Professional Development Process and Impact

Professional development is about CHANGE. The purpose of professional development is to improve learner outcomes by changing instructional behavior to achieve a pre-determined goal — whether in teaching adults or administering programs, in designing professional development activities, or in teaching adult students. While learning about such innovations may be relatively easy, applying them in a consistent and insightful manner is another matter. As Guskey (1986) notes, practitioners appear to be most motivated to change as they observe learner success and satisfaction and this cannot occur immediately. Furthermore, for professional development, like learning, to be successful, it "must be adapted to the complex and dynamic characteristics of specific contexts" (Guskey, 1995). This change process takes time. Therefore, it is unreasonable to expect that individual professional development activities will immediately result in altered long-term instructional behavior, improved learner performance, or changed organizational structures and practices. The role of evaluation, then, is not only to provide information on the impact of professional development, but also to provide data for refining and adjusting professional development activities to ensure that services can be improved on an ongoing basis.

Evaluation of the *impact* of professional development activities must address the following two questions:

- 1. Does professional development alter long-term instructional behavior?
- 2. How do we know that professional development activities do, in fact, improve learner performance?

Evaluation of the process of professional development can tell program staff how well professional development activities within the program are working. Five questions must be considered when using evaluation as a mechanism to promote continuous program improvement:

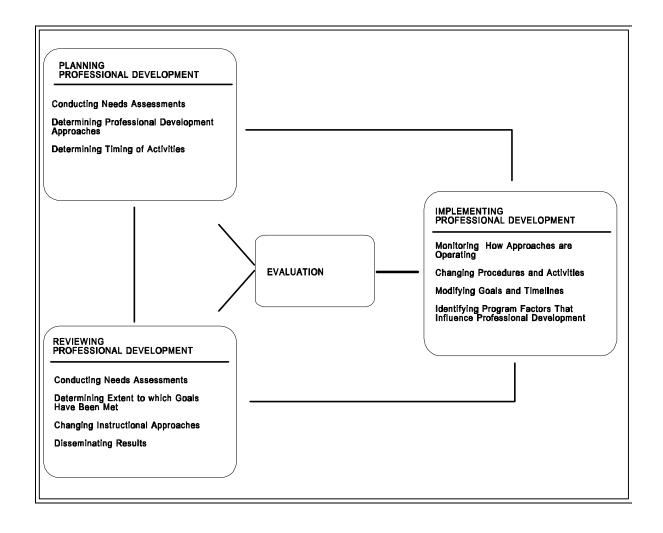
- What would we like to see happen? (Examine goals identified in needs assessments. When correctly done, needs assessments detail the learning needs of participants, which are then reflected in professional development activities. Such assessments should provide a clear reading of the specific objectives of professional development activities. Evaluation is a logical "next step" of needs assessments in that evaluation provides information as to whether (and to what extent) goals identified through needs assessments have been met.)
- 2. How can we make that happen? (Design a professional development plan that includes information on delivery, timing, and use of professional development approaches, and evaluation questions that need to be answered.)
- 3. How is it going? (Collect information and monitor progress on an ongoing basis.)

- 4. What are the results? (Assess the extent of both short and long-term changes.)
- 5. What should be done with the results? (Evaluate options and make decisions.)

The following exhibit shows how evaluation relates to professional development activities and can inform continuous program improvement efforts by staff from professional development agencies and state and local adult education programs. As shown by this figure, evaluation data are used in all stages of the professional development process, including planning, implementing, and reviewing and revising professional development activities. It emphasizes that evaluation is continuous, rather than a single event that occurs at the end of professional development activities.

The professional development framework implies that time is required before professional development activities can be expected to show success, and needs assessments are a critical component of evaluation. Also, the framework is suitable for the different professional development approaches detailed in Section 2 of the *Guide* — Workshop/Presentations, Inquiry/Practitioner Research, Product/Program Development, and Observation/Feedback.

An Ongoing Professional Development Process



An Evaluation Framework

The next exhibit presents a framework for evaluating process and impact, based on Kirkpatrick's (1994) sequential levels of evaluation for training programs. While his evaluation approach was developed primarily for evaluating business and industry training programs, consisting largely of what we characterize in this *Guide* as the Workshop/Presentation approach, many of his concepts and aspects of his design are applicable to a broader base of adult programs. The four stages of evaluation are intended to measure: (1) reaction, (2) learning, (3) behavior and actions, and (4) results.

- <u>Reaction:</u> Measures how those who participate in professional development activities
 react to what has been presented. Although typically characterized as 'the happiness
 quotient," participants need to have a positive reaction to a professional development
 activity if information is to be learned and behavior is to be changed.
- <u>Learning:</u> Measures the extent that professional development activities have improved participants' knowledge, increased their skills, and changed their attitudes. Changes in instructional behavior and actions cannot take place without these learning objectives being accomplished.
- <u>Behavior</u>: Measures what takes place when the participant completes a professional development activity. It is important to understand, however, that instructors cannot change their behavior unless they have an opportunity to do so.
- <u>Results:</u> Measures the final results that occurred because an instructor participated in professional development activities. Evaluating results represents the greatest challenge in evaluating professional development approaches.

As shown in the exhibit, these levels differ by their specific purposes and types of program decisions which they can inform, and especially when attempting to evaluate changed behaviors and results, become more time consuming and expensive to conduct. Kirkpatrick emphasizes the importance of progressing through all four stages sequentially because as he notes, if information/skills are not learned (Level 2), it is unlikely that instructors can change their instructional behaviors (Level 3) or that the programs will change their procedures and learning gains will result (Level 4).

Four Levels of Evaluation for Professional Development

Levels	Purposes	Benefits	Link to Approaches
LEVEL 1 (Reaction)	Measures how those who participate in professional development programs react to it.	 Helps improve future training. Creates trust in participants. Quantitative informatio useful to managand others. Establishes standards of performance (need to change leaders, facilities, materials.) 	Inquiry/Research or Product/Program
LEVEL 2 (Learning)	This level determines if the professional development program has: changed attitudes; improved knowledge; increased skills.	 Measures effectivenessof instruction. Measures specific learning (information attitudes, skills). Results = changes in instruction, instrument, other resources. 	Pre/post tests of information or skills appropriate with Workshop/Presentation and Observation/Feedback. Of minimal use for Inquiry Research as information or skills are more open and discoverable than prescribed.
LEVEL 3 (Change in Behavior) Transfer of training.	Determines the extent to which behavior has changedas a result of the professional development program. (Check to see if there are restraints that prevent change in behavior.)	Intrinsic rewards: self-esteem, empowerment if successful. Extrinsic rewards: praise, promotion, s Provides possible information to manage (If program is continuing C long range, import to consider cost in relation to gains.)	patterned interviews or survey gers. questionnaires at spaced intervals, the Observation/Feedback Approach would
LEVEL 4 (Results)	What final results occurred because participants attended the professional development program? Tangible results (in the workplace) might include: increased production or improved quality. Less tangible results may include self-esteem, crosscultural tolerance or improved communication. (Level 4 is greatest challenge.)	 Measurable increases in quality: teamworale, safety. Be satisfied with felationships or evidentif proof is not available. (Also important to measure results against of the same of th	impossible to tie directly training and specific results (e.g., increased productivity, reduced costs). He suggests "evidence" is sufficient. In other adult

Evaluation Devices

Evaluation devices are instruments for measuring outcomes and processes. Different devices can be used within this evaluation framework. However, three questions need to be answered before determining which devices to use:

- 1. What specific evaluation devices or types of instruments are most appropriate for the different evaluation stages (i.e., reaction, learning, behavior and actions, and results)?
- 2. What specific devices or instruments are most appropriate for which professional development approach (i.e., Workshop/Presentations, Inquiry/Practitioner Research, Product/Program Development, and Observation/Feedback).
- 3. What specific devices or instruments are most appropriate for collecting data about program factors and processes that influence the effectiveness of professional development activities (i.e., administrative support and flexibility, adequate funding)?

Answering these questions is not always an easy task, and often there are many choices. The following exhibit¹ summarizes a number of possible evaluation devices as they relate to the different evaluation stages and professional development approaches. Each device has strengths and weaknesses. To select those procedures most suitable for adult education, we cite advantages and concerns for each device. To measure change as a result of professional development activities, some measure of pre-and-post activity is necessary (it is assumed as a prerequisite in all of the examples). Like the approaches themselves, evaluation is most effective when a combination of devices are employed — each appropriate to specific goals. Such combinations can create a comprehensive and valid evaluation of professional development. Clearly, then, no one method of evaluating professional development is appropriate for all or even any one professional development approach. For example, Inquiry/Research may employ self-report, interview and observation/feedback combinations.

Product/Program Development may favor an evaluation of product use, evidence of leadership in professional development for that product and self-report devices. Workshop/ Presentation may choose Levels 1 and 2 (reports of satisfaction and content/skill assessment) followed by Observation/Feedback and self-report. The combination of possibilities are endless.

¹The chart and following discussion are adapted from frennington and Young (1989). Their research has been adapted for professional development and the base broadened to adult education.

Professional Development Evaluation Devices

INTERVIEWS

Typically, interviews consist of directive and non-directive questions (sometimes rank-ordered) asked in private. Interviews can be used following any of the approaches suggested in this <u>Guide</u>. The question protocols are designed appropriate to each.

Disadvantages

- Advantages

 May get candid responses from participants C especially if non-directive.
- Allows participants to summarize for themselves.
- Allows interviewer to check for miscommunication.
- Can have an additional benefit of building positive relations if successfully conducted.
- Allows for in-depth probes if answers are too general to be useful.
- Interviews focused on an observation tend to be most successful.

- Is time-consuming
- Answers may reflect what interviewer wants to hear.
- Probes may cause person being interviewed to feel stress or be defensive.
- Is, after all, a self-report device that reflects biases of individual and may not reflect actual changes in behavior.

COMPETENCY TESTS*

Most appropriately used following some workshop/presentation approach where content or techniques are the focus of the workshop. (For example, the ESL Institute in California used tests of content and sequence to determine if participants understood training content.) Pre-post forms of a test can be used to measure growth in content of professional development topic.

Advantages

- Helps to guarantee minimum standards of knowledge.
- · Eliminates individual bias if objectively scored.
- · Are logically defensible in a court of law.
- If well constructed, can have limited validity and reliability.

Disadvantages

- Knowledge does not equal effective teaching.
- At best only samples behavior (as do all instruments).
- Have not been shown to have <u>predictive</u> validity (i.e. successful teaching).
- Some states also require pre-service competency tests for initial adult education credentials. Such
 tests frequently require basic competence in reading, writing and math.

STUDENT EVALUATIONS

Maintains that students are best able to evaluate change in instructional behavior because they are everpresent. It is a form of observation/feedback except that students are the observers. Can be done by a student committee responsible for communicating with the entire class or classes (Pennington 1989, p. 628).

Advantages

- Provides an additional means of communication between students and instructor.*
- Standardized format can improve consistency.
- Research shows a positive correlation (.70) between student and peer ratings of instructional effectiveness. (Aleamoni 1987).
- Data from this approach appears to have considerable validity and reliability ((Aleamoni 1987)*
- Can be used effectively in conjunction with other evaluation data (e.g. peer observation in nonpunitive situations).

Disadvantages

- Research shows tendency for students in "required" courses to rate instructors more harshly; thus GED and some ESL or ABE instructors might be rated unfairly.
- ESL students traditionally tend to be uncomfortable with change in instructional patterns C especially if different from those previously experienced.
- Data from students is often subject to misinterpretation.
- Students may be reluctant to be critical of instructors (especially in ESL).

STUDENT ACHIEVEMENT

Some advocates (Medley 1982) maintain that effective professional development should be tied directly to student achievement. That position states that the purpose of change in instruction is to improve student performance. Pre-post tests of student achievement, therefore, should serve as the principal means of professional development (and instructor) effectiveness.

Advantages

- Is seemingly a logical basis for evaluating the effects of professional development as noted above
- Would encourage instructors to focus on student achievement as well as instructional strategies.

Disadvantages

- Research on reliability of student achievement as a "measure of teaching effectiveness has been low" (Pennington 1989; Darling-Hammond 1983).
- Teaching performance is one of many variables affecting student learning.
- Given inconsistent attendance and turnover in adult education, student achievement data would be highly suspect as a measure of teaching effectiveness.
- In beginning-level classes (especially those with low-level English skills) and for students with learning problems, this practice could produce misleading results.
- Individual learning styles also skew learning results from a given instructional strategy.
- Would rely heavily n short-term change whereas language learning, for example, is a long-term process.

^{*}If students view the teacher as "legitimate" and "expert."

Professional Development Evaluation Devices (Continued)

CLASSROOM OBSERVATION

Assumes a "research-based approach whereby the observer collects descriptive data on a predetermined aspect of the instructor's performance" (McGreal 1983). That performance should be directly related to professional development activities.

Advantages

- Has the advantage of allowing instructors to demonstrate change in the actual situation where change takes place: the classroom.
- If used in conjunction with a prepared and agreed-upon format, the data gathered can be extremely reliable.
- With use of a pre-post instrument, the data can effectively show change in instructional behavior resulting from professional development.
 - Evidence indicates that <u>peer</u> observations may provide the best data by avoiding threat of employment decisions.

Disadvantages

- Requires careful planning and focus C usually involving pre-post conferences and established performance criteria.
- Requires systematic and adequate sampling of instructional behavior which, in turn, requires administrative support.
- Can be seen as evaluating the instructor as a person rather than the effects of professional development efforts.
- Controversy surrounds whether visits should be scheduled or unannounced (Master 1983; Pennington 1989).
- Requires an "objective: observer who uses agreed-upon criteria C not just "the way I would do it."

SELF-EVALUATION/SELF-REPORT

Probably the most common procedure in adult education for evaluating the results of professional development. May take the form of interviews, written evaluations (such as portfolio anecdotes), or by public testimony. A variation of this procedure adds an observation-type approach by using a self-made video of classroom instruction.

 Ultimately is most <u>motivating</u> form of evaluation and often the most critical C "the only effective motive for change comes from within" (Brighton 1965, p. 28).

Advantages

- Encourages a sense of responsibility and professionalism that is consistent with the notion of professional development.
- Helps educators focus on long-term goals rather than fleeting interests.
- May be most effective when combined with other modes of evaluation, such as peer observation.

Disadvantages

- Procedure tends to lack reliability and objectivity (at least in the minds of those reviewing reports).
- Research shows that insecure instructors tend to <u>overrate</u> themselves; secure instructors tend to <u>underrate</u> themselves (Pennington 1989 p. 640).
- Training in self-evaluation would appear essential to improve validity.

PRODUCT/PROGRAM EVALUATION

In the case of curriculum development, for example, it is possible to judge the knowledge and skill of the developer by the resulting product. Likewise, a newly developed program can establish evaluation criteria such as size of continuing voluntary enrollment, degree of student retention, success in job or school placements, school and career advancement and the like. If the program has positive results in each of the criteria established, the program developer could possibly be evaluated by those results.

Advantages

- A product or program has concrete observable characteristics that can be objectively evaluated by established criteria.
 The skill of the developer can likewise be evaluated.
- When the development is team-based, the collegial learning as a hands-on process has increased potential for retention and further application.
- The problem-solving nature of the task produces cognitive skill development useful to both classroom and collegial roles. The results can be observed as part of the evaluation process.
- Involvement in program or product development efforts often motivate participants to become leaders in other ways.

Disadvantages

- Both program and product are likely to be developed by a team. It is difficult to assess whether all members benefitted or contributed equally.
- Discord among team members can affect the quality of the result and make evaluation difficult.
- Selection of participants is a problematical task. Neither volunteers nor administratively selected participants may be the most qualified to serve. Careful criteria and screening are required. If members are arbitrarily selected, there is potential for faculty dissention and unwillingness to use results. Evaluation of product might not reflect that situation.

The following discussion briefly summarizes each evaluation device listed in the preceding chart and links each with the appropriate professional development approaches cited in this *Guide*.

Interviews

Probably "the major advantage of the interview process is its confidential nature" (Pennington and Young 1989). On the other hand, the serious drawbacks of time, discomfort, untrained interviewers, and lack of focus make this approach questionable. However, if an agency is willing to invest in interview training of non-threatening, interactive coordinators, the development of appropriate criteria and protocols, and the time required to carry out this process — especially if accompanied by observations — the interview process has demonstrated considerable effectiveness. As such, this device can be used appropriately with any of the professional development approaches.

Competency Tests

Competency tests appear to be useful in assessing the extent to which participants have mastered content and skill training. (See also Kirkpatrick's Level 2.) They *can* serve a role as one component of a series of procedures designed to evaluate professional development. That series should go beyond paper and pencil testing of content or skills. If a professional development approach has a goal of increasing knowledge or skill, such tests are appropriate to ensure that those elements are present before evaluating application of the knowledge or skills. This device could easily be a component of the Workshop/Presentation Approach or the Observation/Feedback Approach.

Student Evaluations

Whereas it is an intriguing notion that adult students who sit in day-to-day observance of instructional strategies are most qualified to evaluate the use of newly learned instructional strategies, this approach may not provide an accurate assessment of the adult education program. Not only do adult students have preconceived notions about appropriate strategies, they may have had negative experiences with them. In addition, erratic attendance of adult students may prevent a sense of continuity. Feelings about instructors make an unbiased judgment difficult. On the other hand, this method used as a corollary with other approaches such as peer observation (Observation/Feedback Approach), might provide some new insights into specific instructional behaviors that work well or could be made more effective. Likewise, student feedback is an important element of the Product Development Approach (e.g., new curriculum) and any Inquiry/Research Approach.

Student Achievement

Because the reliability of test scores as a measure of teaching effectiveness is low, serious questions must be raised about the efficacy of student achievement as an evaluation tool for professional development programs. Further, instructors might be tempted to teach to the test in order

to validate their professional development efforts. In addition, little or no relationship has been found between specific instructional approaches and performance on selected test items (Centra and Potter 1980).

Finally, because teaching performance is only one of many factors that predict student learning, it should not be isolated in a single cause-effect relationship. At the same time, an obvious goal of professional development is to assist in improving student achievement. If not by test scores alone, attention must ultimately be paid to student learning, learning styles, and metacognitive strategies in relation to instructional strategies. The relationship is obviously complex but one in need of study as adult education programs begin to serve funders with more stringent accountability requirements.

Classroom Observation/Feedback

The research data in K-12 programs that link the Workshop/Presentation approach with Observation/Feedback has received accolades (Joyce and Showers, 1981) with some cautionary admonitions (Wade 1984/85).

As noted by Pennington and Young (1989) in discussing evaluation approaches for ESL faculty, "The observation method . . . may arguably be the most valid criterion for evaluation of practicing teachers, i.e., classroom performance" (p. 636). To make this procedure valid, however, requires following strict guidelines. Even then, such observer deficiencies as using subjective standards, lack of content expertise, lack of training in observation methods, and insufficient sampling can invalidate results.

A reliable and valid observation procedure can be established according to Pennington and Young (1989) "only by employing highly trained, sensitive observers who themselves have experienced teaching in the types of classes observed, and who conduct a number of observations under comparable conditions in a variety of classes over a period of time" (p. 637). Competency-based program development (Product/ Program Development Approach), the ESL Institute (Observation/Feedback Approach) and many Inquiry/Research studies have successfully used peer coaching and Observation/Feedback. In addition, it is frequently the content of a Workshop/ Presentation Approach.

Self-Evaluation/Self-Report

Advantages of this method of evaluation of professional development efforts are many: increased likelihood of changing instructional behavior, increased sense of professionalism, and improved goal-setting abilities. It is especially relevant to portfolio development as a reflective practice activity (Inquiry/Research Approach). The lack of objectivity and reliability, however, must be noted. Again a combination of this method with other approaches (such as Observation/Feedback) can

enhance both objectivity and reliability of the method yet maintain the advantages noted above. (See also Kirkpatrick's Levels 2 and 3.)

Product/Program Evaluation

A case can be made that the product or program developed reflects the success of professional development efforts. However, several factors make such a simple evaluation analogy difficult: Can the "growth" of the individual be documented without pre-post measures? How can we measure *individual* development if the product or program is a group effort? Do the results truly represent professional development levels or did prior qualification, arbitrary selection, or group dissention affect the outcomes?

Surely product or program results are part of the evaluation process but more comprehensive assessment and evaluation such as those discussed above should also be applied to this approach.

Evaluation Scenario

The scenario presented in the following exhibit incorporates components of the professional development evaluation model described earlier in this section. Specifically, the scenario depicts how a combination of evaluation devices can be applied to evaluating professional development. It must be noted, however, that in this scenario, program and administrative factors are all supportive, enhancing the likelihood that the professional development activity would be successful.

Professional Development Evaluation Scenario

PROFESSIONAL DEVELOPMENT STAGES

INFORMATION GATHERING & EVALUATION PROCEDURES

PLANNING FOR PROFESSIONAL DEVELOPMENT

Three levels of needs assessment profiles reveal that several ESL instructors, the professional development coordinator, and the site administrator feel that ESL students are being "spoon-fed" by a number of wellmeaning ESL instructors who want to protect their students from uncomfortable situations and honor student beliefs that the role of the instructor is to present "information" and the role of the student is to learn it. The issue comes up at most faculty meetings. To resolve the problem, the Professional Development Council, consisting of instructors, the P.C. Coordinator, the site administrator, and student representatives decide to set up an action research project with beginning ESL students to see if students will, in fact, accept other instructional strategies and become more independent learners without sacrificing expected gains in English competence. Because there are differing perceptions of action research, the Council decides to hold a workshop series on "Action Research: Theory and Practice" open to all ESL faculty including those participating in the Action Research project. Participants will establish guidelines, interventions, as well as monitoring and evaluation procedures.

Analysis of needs assessment profiles for instructors, professional development coordinator and site administrator by the Professional Development Council.

Identification of a specific problem in need of resolution.

Decision to set up an Action Research Project (Inquiry/Research Approach)

Establishes clear goals + evaluation questions:

- Will students accept instructional strategies that require more self-direction?
- Will students become more independent learners?
- Will student gains be as great or greater as expected in traditional classrooms?

Decision to hold workshop series to standardize procedures and inform other interested faculty.

Procedures to include:

- A pre/post survey on action research for workshop series;
- Pre/post English competency measures to show student gains;
- A Level 1 evaluation form for each workshop session;
- A 3-hr. informal video of each ESL teacher's classroom (pre-post)
- A portfolio anecdotal log (weekly).

2. IMPLEMENTING PROFESSIONAL DEVELOPMENT

The action research project is carried out following the steps illustrated in Section 2 of this *Guide*. The length of the project will encompass 75 instructional hours for each student.

During the final week of the program, a second video is recorded in each ESL classroom.

Post tests are administered to students and post-surveys to instructors.

- All pre-tests and surveys are administered;
- Pre classroom videos are recorded;
- Each Friday the Coordinator facilitates a meeting of participants (for which they are paid). Sessions last 90 minutes. Portfolios are reviewed, compared and evaluated;
- Decisions are made to modify instructional strategies, change timelines or make other needed changes.

PROFESSIONAL DEVELOPMENT STAGES

3. REVIEWING PROFESSIONAL **DEVELOPMENT**

the professional development coordinator with an evaluation specialist. The data and their findings are then presented to the faculty participating and lastly, to the professional development council.

The Professional Development Council is pleased with the results which show comparable student gains, but great strides in independent learning and metacognitive strategies as well as improved self-esteem by both students and instructors.

Results of all assessments are first analyzed by Each entity looked at the data to see if the original evaluation questions had been answered and to what extent goals were achieved. A report was compiled to present the findings, which were considered to be very favorable.

> The Council, with administrative concurrence, decides to have presentations of results to all ESL faculty, for the Board of Education, to other appropriate community organizations, and at the statewide adult education conference.

In addition, faculty who participated have volunteered to "peer-coach" other interested faculty (Observation/Feedback Approach).

It was also decided to conduct a new needs assessment following the faculty presentations to see if other faculty would like peer coaching in the metacognative, problem-solving, decision-making strategies used in the research project.

The Council has indicated if peer coaching is successful, to consider mandating the successful strategies throughout the ESL program.

Thus, the evaluation cycle has come full-circle with a targeted needs assessment that will follow the same steps illustrated above. During this targeted professional development activity, other professional development activities should also be taking place to meet other needs or solve other organizational problems. As Showers (1995) points out: "The entire [professional development] process must be embedded in the school culture to ensure a permanent ongoing inquiry into how to make the school better (p.6)."

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