



The Selection Process

The process for identifying and selecting the programs included in this guide involved establishing the criteria for inclusion, identifying potential programs, and reviewing submitted programs.

Establishing Criteria for Nomination

Four criteria were established in 1997 by the National Advisory Panel. While the criteria are unique to this study, they provide other educators — especially those on school improvement teams — with a beginning point for examining any staff development programs under consideration. The criteria are:

1. Results measured in terms of student performance;
2. Well-defined staff development program;
3. Content-specific staff development designed to improve middle-grade teachers' content knowledge and/or content-specific pedagogical skills; and
4. Program occurs at multiple schools or within district, state, or regional areas.

Criterion One: Results Measured in Terms of Student Performance

The National Advisory Panel reached consensus that evidence must be demonstrated of what students know and are able to do. The evidence of student achievement had to be academic rather than based on student attitude, classroom behavior, or exhibition of learning processes. The panel members decided that changes in reasoning skills, inquiry, discourse, or student attitude alone are insufficient to warrant consideration for inclusion of the program in the guide. This meant, for example, that an increase in students' participation in class or evidence of higher-order thinking skills was not sufficient as evidence of student achievement. They further agreed that student report cards or teacher reports of student learning did not adequately demonstrate student achievement. In addition, panel members agreed that evidence was strengthened when data from multiple-year efforts, multiple sources, and/or sub-populations were available and showed positive changes. Longitudinal data were not required.

In determining the type of evidence that would demonstrate increased student achievement, the National Advisory Panel members agreed that positive changes in the following would serve as evidence:

- Standardized achievement tests
- Portfolios
- Exhibitions
- Performance tasks
- Performance events
- State assessments
- Local criterion-referenced tests
- Participation in non-school academic events
- Participation in higher-level courses
- Other products for which there is a defined standard of quality and training for those who will conduct the assessment.

Teacher enhancement programs whose goal was to change teachers' content knowledge, instructional practices, and/or attitudes were not reviewed unless their intended result was to change student achievement. Programs initially developed to provide curriculum and instructional materials and resources rather than to provide staff development to extend teachers' content knowledge and/or content-specific pedagogical processes were eliminated from consideration.

Evidence of student achievement was the first screen for programs and also the one that caused the most programs to be eliminated. Of the approximately 500 programs that were identified as content-specific staff development initiatives for middle-grade teachers, fewer than one-fifth merited a closer examination. Approximately 80 programs met this and some other criteria and provided some documentation for further study. Half of the approximately 80 projects that had evidence of student achievement qualified for a more extensive review process, and only the 26 that are included in this volume ultimately met all criteria.

Criterion Two: Well-Defined Staff Development Program

Criterion two is a well-developed staff development program. This criterion was not as challenging for programs to meet. As a matter of fact, many of the 80 programs reviewed had strong staff development programs.

To review the staff development associated with each program, the National Advisory Panel members examined each program's goals, syllabi, sample materials, time allocation, content, processes, and follow-up.

Most of the programs use the training model of staff development, with follow-up that includes classroom-based coaching, feedback, and ongoing support meet-

ings for participating teachers. A large number of the programs provided training during summer intensive workshops of two to five weeks with follow-up provided during the school year.

Using the National Staff Development Council's *Standards for Staff Development: Middle Level Edition*, the National Advisory Panel identified the following characteristics of well-defined staff development programs to evaluate the programs:

Content

- Intends to change pedagogy, current knowledge of the content area, and teacher belief systems
- Aligns with the content-area standards
- Provides for parent learning

Process

- Is a defined, discrete program
- Provides evidence of changes in pedagogy, content-area knowledge, and belief systems
- Is grounded in research, theory, or best practice
- Provides clear goals/purposes
- Is based on an assessment of needs
- Engages teachers and students
- Is a continuous model implemented over time
- Accommodates adults' learning styles
- Includes coaching/reflection/feedback
- Includes follow-up
- Identifies student activities
- Establishes procedures for teachers

Context

- Involves supervisory and support staff
- Describes the school/department/unit culture
- Extends to multiple classrooms, entire school, or multiple schools

These characteristics parallel the content, process, and context standards included in NSDC's standards. No staff development program included all these characteristics. Few, in fact, included most. A matrix on page 184 identifies which of the NSDC standards each program meets.

The second criterion eliminated a number of curriculum development or implementation projects. Because the focus of the study was staff development, curriculum programs *without* extensive staff development were not considered.

The National Advisory Panel found critical differences among programs providing curriculum, instructional materials, and resources. Criterion Two requires that a solid staff development component accompany such programs. For example, Foundational Approaches in Science and Technology (FAST) is designed to provide curriculum, instructional materials, and resources, but it is also coupled with mandatory and extensive staff development. FAST, a total package, demonstrates that when both staff development and challenging and developmentally appropriate curriculum are implemented, student achievement increases. On the other hand, *Connected Mathematics*, a well-received mathematics curriculum, is available in textbook form and can be purchased from the publisher without implementing or purchasing a staff development component. Although most mathematics specialists agree that training in using *Connected Mathematics* is essential to its success, such training is not required or monitored for quality or consistency by any agency.

Criterion Three: Designed to Increase Teachers' Content Knowledge and/or Content-Specific Pedagogical Skills

This criterion eliminated the second largest group of programs considered. The focus of Results-Based Staff Development for the Middle Grades was *content-specific* staff development in language arts, mathematics, science, and social studies. Content-specific staff development is essential because previous efforts in staff development that have focused on instructional processes or management strategies devoid of content have been less effective in improving student learning. Therefore, a shift in thinking in staff development has occurred in recent years. Shulman (1987) suggested that teachers need three kinds of knowledge: knowledge about their content area; knowledge about pedagogical strategies; and knowledge about content-specific pedagogical processes. Although there are a number of staff development programs that are more general in nature, these programs were not considered unless the content of the staff development extended teachers' content knowledge and repertoire of content-specific instructional strategies.

Staff development for the past 20 years has focused almost exclusively on developing more general pedagogical processes. Teachers often find it difficult to apply general processes to specific disciplines without specific support for adapting the strategies to various curricular areas. While many programs in cooperative learning, learning styles, and instructional processes have enriched teachers' pedagogical processes, they have not specifically deepened teachers' personal knowledge of their disciplines.

As a result, teachers are often process rich and content poor. This is particularly true in the middle grades where many teachers might not have academic majors

in the subjects they teach and are teaching out of their content areas, or have not had opportunities to keep abreast of the rapid changes in the content areas, especially in science, mathematics, and social studies (National Commission on Teaching, 1996; Condition of Education 1997).

The third criterion allowed panel members to take a unique look at staff development. Since most evaluations of staff development efforts have focused on general instructional processes, this criterion underscored the importance of tailoring staff development to help teachers address the new content standards. In addition, many of today's teachers were students 10 to 20 years ago, and they find that expectations for students today are much higher than those that they experienced as students.

Criterion Four: Occurs at Multiple Schools or Within District, State, or Regional Areas

The fourth criterion established by the National Advisory Panel is that the selected programs are current and ongoing at multiple schools, districts, regions, or states. Again, this criterion eliminated a number of individual school efforts to improve student performance. The National Advisory Panel's goal was to identify model programs that other schools or districts might replicate, adapt, or use as models. Recognizing that unique conditions or factors at individual sites, such as an exceptional school leader or particularly dedicated staff, may often be the source of a program's success, the panel looked for programs that had been implemented at a number of schools to reduce the "site-effect."

Many locally developed programs have been enormously successful in improving student achievement. However, successful replication across sites suggests that a program's accomplishments are less dependent on the characteristics of an individual school and more related to the design of the staff development effort. Most programs included in this guide have a national- or state-level scope, although several district efforts are also included.

Identifying Programs

After the criteria were established, the process of identifying programs began. By October 1997, almost seven months into this effort, no programs that met all four criteria had been identified. Some panel members were certain they would have the slimmest volume ever published. The project director had a nightmarish vision of a beautiful cover with nothing inside! Two or three programs identified early in the process were quickly eliminated by the National Advisory Panel because they did not meet the established criteria. Through the process of reviewing the early programs, the criteria were refined and solidified.

Gradually, an extensive “call for programs”— posted on Web sites, published in professional journals, and shared by word-of-mouth — brought responses, and with the assistance of a large contingency of supporters, a number of programs were eventually identified. Programs with potential for inclusion emerged as the panel members considered programs from the National Diffusion Network, the Teacher Enhancement database maintained by TERC, professional development resources compiled by the Eisenhower National Clearinghouse for Mathematics and Science, and listings of grants awarded by the Office of Evaluation and Research on Improvement from the U.S. Department of Education and the National Science Foundation.

Particularly useful in the search for programs were past editions of *Educational Programs That Work: The Catalogue of the National Diffusion Network*, published annually by the National Diffusion Network (NDN) with support from the Department of Education. Since its inception in 1974, the NDN grew to include over 200 programs in its catalogue. The catalogue provided synopses of programs that were approved for inclusion by the Program Effectiveness Panel (formerly the Joint Dissemination Review Panel). To be approved, program developers submitted evidence of their program’s effectiveness in meeting its goals and of its ability to be replicated. The National Diffusion Network was disbanded in 1996.

Reviewing Programs

After the information for a program was received, the project director reviewed the documentation submitted. If a preliminary review revealed that sufficient evidence was available to demonstrate that all criteria were met, the program qualified for more intensive review. Of the nearly 80 programs initially reviewed by the project director, only half went on to the next step of the review process. A program summary sheet was compiled that highlighted key aspects of the program. This summary sheet was used in the next level of review.

If a program met all four criteria, it was then sent to the appropriate content-area review team, a sub-committee of the National Advisory Panel. The review teams were people with expertise in a core content area and representatives of the professional associations for each discipline. For example, the mathematics projects were reviewed by the two representatives of the National Council for Teachers of Mathematics who served on the National Advisory Panel and by at least two others who had expertise in the discipline. Review team members could recommend to include the program, seek additional information, or eliminate the program. In almost every case, the questions that arose or the reasons for elimination related to the student achievement data or the design of the staff development program. If additional information was needed, the project director contacted the

developer to request the necessary information. The project director then determined if the information was sufficient to answer the questions of the reviewers. In some cases, new information was circulated to reviewers before a final decision was made.

Following each team's review and the compilation of the additional information reviewed, program abstracts were developed. These program abstracts were then shared with the Expert Review Council, a group of 26 middle level and content-area experts, who provided feedback on each project and validated the program's success. In addition to the Expert Review Council, Reflector Groups were convened at various places throughout the country, often at annual conferences of the collaborating associations. Reflector Group members provided feedback on the content of the abstract and the format of program descriptions.

This extensive review process has increased the likelihood that the programs included in this guide are examples of middle grade, content-specific staff development programs that have increased student achievement and that can be replicated, adapted, or used as models for designing professional development. Of course, having completed the review process does not guarantee that these programs will be successful for every school. It does, however, suggest that based on the information available to reviewers, these programs have the potential to improve teachers' content knowledge, content-specific pedagogical processes, and student achievement if programs are selected and implemented appropriately.

References

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