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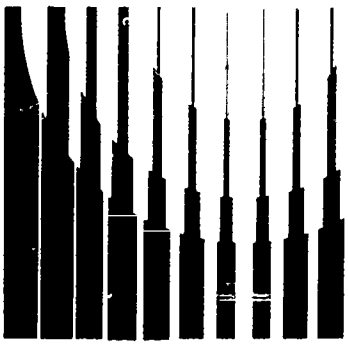
ABSTRACT

This monograph highlights important findings and guidelines that have emerged from over a decade of research at the University of Oregon's Center for Educational Policy and Management (CEPM) concerning the continued professional development of school personnel. After a brief introduction, the booklet is divided into three sections. The first, "Foundations," introduces a framework for thinking about continued professional development. The framework identifies key factors in analyzing or designing a professional development program and introduces basic concepts. This is followed by a brief review of prevailing staff development practices. The second section, "Research and Development," consists of three chapters that describe CEPM-affiliated projects aimed at increasing the effectiveness, respectively, of teachers, programs, and the organization as a whole. Section 3, "Action," presents guidelines for district administrators in designing professional development programs and for principals in implementing them at the school level. The booklet closes with a discussion of challenges that lie ahead for professional development. A bibliography is included. (TE)

Promoting *the* Professional Development of Teachers *and* Administrators



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About CEPM

The Center for Educational Policy and Management (CEPM), a part of the University of Oregon's College of Education, is one of eight university-based research centers nationwide receiving federal support from the National Institute of Education.

Since its establishment in 1964, CEPM has provided international leadership in the field of educational administration. Researchers from the disciplines of education, political science, sociology, management, economics, and law bring their diverse perspectives to the Center's efforts to improve schooling through better management of human resources. Currently the Center's research focuses on three program areas—administrative leadership, staff development, and secondary school organization. Researchers are engaged in examining such issues as (1) instructional leadership in schools and ways in which administrative functions can positively affect student performance, (2) the characteristics of effective staff development programs for teachers and the role that administrators should play in program design and implementation, and (3) the characteristics of effective secondary schools and implications for their management.

The Center produces a wide range of publications for researchers, policy makers, and practitioners. CEPM's *R&D Perspectives* is published quarterly. Most issues of the free publication are devoted to an area of research currently being investigated at the Center. Articles in *Outlook*, a tabloid published three times a year, present information on the work, research, and activities of the Division of Educational Policy and Management and the other divisions of the College of Education. CEPM also publishes research reports, monographs, and books.

About ERIC

The Educational Resources Information Center (ERIC) is a national information system operated by the National Institute of Education. ERIC serves the educational community by disseminating educational research results and other resource information that can be used in developing more effective educational programs.

The ERIC Clearinghouse on Educational Management, one of several clearinghouses in the system, was established at the University of Oregon in 1966. The Clearinghouse and its companion units process research reports and journal articles for announcement in ERIC's index and abstract bulletins.

Research reports are announced in *Resources in Education (RIE)*, available in many libraries and by subscription for $51.00 a year from the United States Government Printing Office, Washington, D.C. 20402.

Most of the documents listed in *RIE* can be purchased through the ERIC Document Reproduction Service, operated by Computer Microfilm International Corporation.

Journal articles are announced in *Current Index to Journals in Education CIJE* is also available in many libraries and can be ordered for $150.00 a year from Oryx Press, 2214 North Central at Encanto, Phoenix, Arizona 85004. Semiannual cumulations can be ordered separately.

Besides processing documents and journal articles, the Clearinghouse has another major function—information analysis and synthesis. The Clearinghouse prepares bibliographies, literature reviews, state-of-the-knowledge papers, and other interpretive research studies on topics in its educational area.

Contents

Foreword

The purpose of this monograph is to highlight important findings and guidelines that have emerged from over a decade of research at the University of Oregon's Center for Educational Policy and Management (CEPM) concerning the continued professional development of school personnel.

The ERIC Clearinghouse on Educational Management, also located at the University of Oregon, is pleased to cooperate with CEPM in publishing the monograph. A primary mission of the Clearinghouse is the dissemination of research findings in formats useful to school practitioners.

Information presented in the monograph is intended to be useful to school managers and policy makers. Discussion of research methodology is brief. Attention centers instead on broad concepts, major findings, and practical implications.

According to the cooperative publishing arrangement, the book's preparation was funded by CEPM. CEPM then edited the manuscript with the assistance of the Clearinghouse, which also supervised the book's production.

The authors, Glen Fielding and Del Schalock, are unusually well qualified to write the monograph. Fielding is an associate research professor in the Teaching Research Division of the Oregon State System of Higher Education, as well as a research associate at CEPM. Schalock is assistant dean of research and development in the Oregon State University-Western Oregon State College School of Education, in addition to being a research professor in the Teaching Research Division of the Oregon State System of Higher Education, and also a research associate at CEPM. Both authors are pivotal members of the Valley Education Consortium, a coalition of school districts, education service districts, and other agencies that helps schools to implement school improvement programs.

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Introduction

In at least one important way education is like any other business or profession. the quality of personnel is of central importance. No matter how sophisticated or extensive a school's resources or how carefully developed its policies, without the skill and commitment of teachers and administrators, a school cannot succeed. Effective education depends on effective professionals.

Realizing the essential role that personnel play in achieving excellence in our nation's schools, the Center for Educational Policy and Management (CEPM) at the University of Oregon has undertaken many efforts to extend knowledge about the continued professional development of teachers and administrators. These efforts have taken a variety of forms, including research studies, descriptions of ongoing research and development projects, and conferences on various aspects of professional development.

Much of what has been learned at CEPM about staff development has been conveyed through technical reports intended primarily for members of the research community. These reports generally have focused on a single study or project. What has become clear is the need to bring together and summarize CEPM's work in a form useful for school managers and policy makers. A major purpose of this booklet is to supply a succinct and cohesive summary of what CEPM has done in the area of professional development.

But the booklet is more than a summary. It also represents an effort to derive from CEPM's work, and from related work conducted elsewhere, implications for action. The purpose is not only to inform the reader, but to provide guidance in designing and managing staff development programs.

The booklet is divided into three sections. The first, "Foundations," introduces a framework for thinking about continued professional development. This framework is intended to identify key factors that need to be considered when analyzing or designing a professional development program. It introduces basic concepts that are illustrated and elaborated upon throughout the booklet. Also included in this section is a brief review of staff development practices that prevail in most school districts in this country.

The second section, "Research and Development," describes a number of projects pertaining to staff development that CEPM

has sponsored or with which it has been closely associated. Some of these projects focus on staff development to increase the effectiveness of individuals. Others focus on staff development intended to serve the larger goals of implementing or improving a school's instructional programs or of increasing the adaptability and effectiveness of the school as an organization. Projects serving each purpose are described in separate chapters.

Section 3, "Action," presents guidelines for designing and implementing professional development programs. These guidelines reflect understandings gained not only through CEPM's work but from other recent staff development studies or experiments. The first chapter is intended primarily for superintendents and other district administrators involved in planning professional development programs. The second is intended for principals it deals with ways of fostering successful professional development in individual schools. The booklet closes with a discussion of important challenges that lie ahead in studying and improving professional development programs.

PART 1

Chapter 1

A Framework for Thinking about Professional Development

Clarity about the important aspects of professional development programs is helpful both for thinking about research on staff development and for planning staff development programs. Accordingly, we begin this booklet with a discussion of basic dimensions of professional development programs. These dimensions will be referred to and elaborated upon throughout the booklet.

In keeping with a definition of staff development proposed by Griffin (1983), we view *professional development* as a deliberate effort to "alter the professional practices, beliefs, and understandings of school persons toward an articulated end." This definition stresses the intentional and purposeful nature of professional development. Although professional development no doubt happens in unplanned as well as deliberate ways, in this booklet emphasis is placed on goal-directed professional development Put simply, we focus on professional development that is intended to serve clear purposes.

We generally prefer to use the term *professional development* rather than the more common term *staff development* because the former highlights the status of educators as professionals, rather than employees. Nevertheless the two terms are used interchangeably in the booklet.

In the remainder of this chapter basic dimensions of professional development are described. The dimensions in our framework include

1. The general *purpose* to be served by a program
2. The *context* in which a program is to take place
3. The background and characteristics of program *participants*
4. The specific *objectives* of a program
5. The *procedures* used to accomplish objectives
6. The *costs and benefits* of a program

These dimensions have been selected and adapted from models for analyzing inservice education originally developed to guide research (Hersh and others 1981; Gall and others 1982).

Purpose

We identify three broad purposes of professional development. One is to foster the growth or increase the effectiveness of individual educators. Professional development for this purpose centers on individual needs or interests that may differ from priorities of a school or district.

Another purpose of staff development is to foster the implementation or improvement of an instructional program as a whole, such as a district's writing or mathematics program. Inservice of this type generally is driven by districtwide priorities for improving student learning.

A third purpose of staff development is to improve the effectiveness of a school as an organization. *Organizational effectiveness* may be defined generally as the capacity of teachers and administrators to work together constructively in accomplishing goals and identifying and solving problems.

Traditionally, discussions of staff development have focused on the first purpose noted above—that of promoting individual development. The research conducted during the past decade on school effectiveness and improvement, however, has caused many people to ask how staff development can be designed to benefit not just individuals but school programs and the school environment generally. In keeping with this line of thinking, considerable attention is given in this booklet to professional development for program and school improvement.

Context

Another important aspect of professional development is the context in which it takes place. This context can be viewed as consisting of three broad dimensions: technical, interpersonal, and cultural.

The *technical* dimension is made up of the procedures and resources that help teachers and administrators accomplish their work. These include curriculum guides, textbooks, testing programs, student placement procedures, daily schedules, and procedures for supervising and evaluating school personnel. Technical aspects, though appearing of minor importance, can have major effects on professional development programs. They present opportunities and constraints that must be considered when designing inservice activities. For example, it is difficult to implement an inservice program on developing students' higher order thinking skills if curriculum and textbooks emphasize acquisition of factual knowledge.

The *interpersonal* dimension concerns the patterns of communication, support, and cooperation in a school. Schools charac-

terized by positive and productive interpersonal relations provide a more supportive context for inservice programs than schools in which teachers work in isolation from colleagues, are afraid to take risks, and regard administrators as adversaries. Much of the current literature on staff development emphasizes the need to understand the social systems or subsystems of the school (Lieberman and Miller 1984).

The *cultural* aspect of schools has to do with the beliefs, values, and ideals that are shared among members of the school community. These include beliefs about the purposes of schooling, the roles of teachers and students, and the special "mission" or "character" of a school. Culture also refers to the forms through which common beliefs and values are expressed and communicated, such as stories told by a principal about special teachers or events that create desired images of the school. These forms of communication also include awards assemblies, honor rolls, pep rallies, and other public recognition of achievement or good conduct. The cultural norms and symbols of schools, in combination with the interpersonal and technical aspects of schools, define the context in which professional development efforts take place.

Participants

Besides paying attention to the context of a school, those designing inservice programs also must consider the kind of concerns, expectations, and experience that participants are likely to bring to inservice events. Designs for staff development activities need to be sensitive, for example, to the differing concerns of elementary and secondary school teachers. As Lieberman and Miller (1984) point out, elementary teachers are likely to be concerned about such issues as how to teach more subjects than will fit in the time allotted, when to teach in large groups, or when to insist on mastery over content and when to be satisfied with mere "coverage." Secondary teachers typically have concerns about issues like packaging and pacing instruction to fit into set time periods, balancing loyalties to the faculty and loyalties to the student culture, and dealing with the school's organizational structures. These differing concerns need to be appreciated when plans for inservice programs are constructed.

Teachers at different stages of career development also may profit from different kinds of inservice activities. Whereas a new teacher, for example, might need assistance in understanding and

internalizing a school's policies and norms, an experienced teacher might want assistance in becoming a department chair, a supervisor of student teachers, or an author of curriculum materials.

Finally, certain personal characteristics and attitudes of educators need to be appreciated when planning professional development activities, since these factors influence teachers' receptivity to new practices or programs. In a widely cited experiment in inservice education, for example, Crawford and his colleagues (1978) found that teachers' verbal ability correlated positively and significantly with their use of recommended instructional practices. Several studies also have shown that teachers' attitudes toward themselves as teachers, toward inservice education, and toward educational change affect their response to inservice programs (Sparks 1983). For example, teachers who see themselves primarily as content experts who transmit basic knowledge to students might have a difficult time dealing with an inservice program on the use of simulations and role-playing in the classroom.

Objectives

The objectives of a professional development program refer to what participants are expected to gain from the program. Objectives can focus on a wide range of expected outcomes, from enhancing an individual's understanding of self or of a new academic specialty, to gaining proficiency in a new instructional model or program, to developing skills in group communication or decision-making.

It is sometimes helpful to describe objectives according to their degree of complexity and novelty. *Complexity* refers to the number of different attitudes, skills, or understandings participants are expected to develop or refine and the subtlety of relationships among them. Learning one or two separate techniques, for example, is less complex than learning how to use an integrated model of teaching. Novelty refers to the degree of familiarity participants already have with the content. Many teachers report that objectives of inservice activities typically deal with content with which they are already familiar. Inservice activities that focus on simple or familiar material need to be organized differently from inservice activities that address complex or novel material.

Finally, as Gall and his associates have pointed out (1982), objectives for staff development programs may be established that indicate desired changes in students as well as in teachers and

administrators. Such programs frequently attempt to improve students' learning, attitudes, or behaviors. For example, inservice programs have been designed to help teachers reduce student discipline problems, or to increase the amount of class time students spend on academic tasks.

Procedures

Procedures are the methods used to accomplish the objectives of a professional development program. These may include lectures and discussions, microteaching, peer observations and "coaching," supervision and feedback from administrators, and informal colleague interactions. Distinctions often are made between procedures appropriate for developing *awareness* and knowledge of new practices and those appropriate for developing *skill* in using and adapting new practices. The appropriateness of a procedure obviously depends on its objectives and its clients.

Costs and Benefits

Costs of a professional development program include not only financial expenses but any opportunities or activities that participants forego to participate in a program, such as giving up time for instructional planning. Also included are negative consequences linked to the program, for example, a decline in student interest in a particular subject area. Benefits of the program are gains in individual, program, or organizational effectiveness, feelings of personal satisfaction or growth, and other positive outcomes.

The anticipated costs and benefits of staff development, along with the other dimensions discussed earlier, need to be considered when planning professional development programs. All the dimensions introduced in this chapter will be treated in more depth in the chapters ahead.

Chapter 2

Prevailing Patterns of Professional Development

In this chapter, we describe staff development practices that are commonly used in the nation's schools. This description provides a useful context for reviewing the studies and projects discussed later in the booklet because they have been designed to extend or improve upon prevailing practice. To organize the chapter, we will use the categories identified in chapter 1. purpose, context, participants, objectives, procedures, and costs and benefits.

Purpose

Research suggests that most inservice activities focus on the professional development of individuals rather than the improvement of an instructional program or a school. In an indepth study of inservice practice at grades 1-8 in three school districts in Oregon, Gall and his colleagues (1982) found, for example, that teachers perceived less than one-fifth of their inservice activities to be related to school improvement. Gall noted that, even though a majority of inservice activities involve teachers from different schools as well as school district administrators, inservice rarely is structured to promote school or district improvement. It is more apt to focus on developing individuals' knowledge or skills than on program or organizational effectiveness.

Schalock (1984) found in a broad survey of teachers, principals, and education specialists in Oregon that for all groups the most common reason for engaging in inservice activities was professional development generally. Results from the survey suggest that these activities respond primarily to individually defined needs.

A study by Arends (1983) of inservice activities of first-year teachers also suggests a heavy emphasis on individual development. Writing about first-year teachers, Arends concluded:

> Each beginner's learning appears to be the product of individual decisions more than decisions made in mutual agreement with others. Perhaps, what we find with the learning experiences of beginning teachers reflects what we find with other aspects of teachers' work—the autonomous professional working alone. (p. 42)

Arends' findings support a general conclusion that, by and large, professional development activities respond to individuals' needs, which may or may not relate to larger priorities for school improvement.

Context

Perhaps the major research finding about the usual context for professional development is that such activities reflect the "loose coupling" of the school environment. *Loose coupling* means that the various organizational components of schooling—for example, instruction, administration, and student assessment—are separated from each other. What happens in one sphere has no predictable impact on other spheres. Loose coupling also means that the various actors in the school community—such as regular teachers, teacher specialists, principals, and superintendents—respond to different goals and interests. They follow separate agendas. From this perspective, schools appear to be fragmented organizations rather than cohesive units.

One expression of loose coupling is that staff development is typically disconnected from any overall agenda for program or school improvement. In a study of staff development patterns in three large U.S. urban districts, for example, Moore and Hyde (1981) found that responsibility for staff development in each district was dispersed among a large number of people and departments. Staff development activities in each district had simply accumulated over time. They responded to a variety of factors, such as federal funding opportunities, fund cutbacks, and teacher contract negotiation. The focus or design of inservice efforts was not primarily the result of deliberate policy.

Some researchers also have noted that inservice programs often lack sensitivity to the *cultural* dimension of the school's context (Ward 1985). For example, Wolcott (1977) described a research and development project in which teachers received training in the use of highly rational and data-based instructional procedures. The technical culture of the program's developers conflicted sharply

with the culture of teachers in the school district. According to Wolcott, program developers emphasized such values as long-range planning and the achievement of long-range outcomes, whereas teachers tended to be more concerned with the quality of day-to-day life in the classroom. The cultural gap between these two groups was never bridged. Staff development efforts have not always taken into account the cultural norms that exert such a powerful influence in schools and classrooms.

Participants

Who participates in inservice activities, how often do they participate, and what are the attitudes and expectations they bring to these activities? Research yields some answers.

Who Participates and How Often

Studies suggest that teachers at all levels participate in some form of staff development each year. Evidence also indicates that a large percentage of principals engage in such activities, often with teachers from their building. Research yields few clues about the participation of district administrators.

Precise generalizations about the frequency of participation in inservice events are difficult to make because the definitions given to the terms *inservice activity* and *continued professional development* seem to have varied across studies, as have the methods used to gather information. Gall and others (1982) found through interviews, for example, that elementary teachers on average participate in over seven inservice activities per year, whereas Schalock (1984), using a questionnaire, found that teachers generally engage in only about 1.5 activities per year. The reason for the discrepancy may be that respondents to the survey interpreted the concept of inservice more narrowly than teachers interviewed in Gall's study.

Participation in inservice seems to vary by position in a district. Schalock found that education specialists engage in more inservice activities per year than do either teachers or principals. Interestingly, Schalock also found that principals on the whole participate in more inservice activities than do teachers. It is unclear whether these findings are generally applicable.

We also do not know whether participation varies by years of experience or by grade level taught. Schalock found that years of experience have little or no connection to participation. Arends

(1983) found that beginning high school teachers engage in about 3 5 professional development activities per year, but how this frequency compares to the experience of more established colleagues or elementary teachers is unknown.

Attitudes and Expectations

Research yields some useful conclusions about attitudes and expectations of teacher participants in inservice activities.

1. Teachers generally prefer inservice activities that deal with student motivation, affect, and attitude over those that deal with increasing student achievement (Schurr and others 1980). Hall and others (1973) found, however, that under supportive conditions, teachers may become less concerned about student affect and classroom management and more concerned about the issue of student achievement.
2. Teachers prefer inservice activities that permit them to work with other teachers (Holly 1982), particularly others with similar teaching responsibilities (Ngaiyaye and Hanley 1979).
3. Some evidence suggests that teachers appreciate having teachers from different schools represented in inservice activities (Gall and others 1982).
4. Several different sites for inservice are acceptable to most teachers (for example, a school district office or a university), but the most favorable site appears to be the teacher's school (Gall and others 1982).
5. Teachers have positive attitudes toward the participation of principals in inservice activities (Gall and others 1982).
6. As a group, teachers have positive attitudes toward inservice (Gall and others 1982). Krupp (1980) found, however, that teachers in their forties who had taught for twenty or more years consistently expressed negative attitudes toward staff development.

Less is known about the attitudes and expectations of principals toward professional development. On the basis of several surveys of principals' attitudes toward inservice, Wyant (1980) concluded that principals are most interested in inservice activities that deal with

- ☐ exercising leadership in educational improvement and change

- ☐ evaluating instructional programs and personnel
- ☐ maintaining good school-community relations
- ☐ providing staff development for teachers
- ☐ improving school climate
- ☐ developing specific skills in problem-solving, decision-making, and conflict resolution

With respect to the "delivery" of inservice, Wyant suggested that principals had positive attitudes toward visiting other schools, participating in small group sessions to discuss common problems and share ideas, and attending inservice activities with teachers. They also expressed interest in credit courses offered on a regular basis.

Objectives

Available evidence indicates that inservice activity is fractionated over a wide variety of topics. Teachers interviewed in Gall's study participated in inservice activities that focused on basic skills instruction, general instruction-related topics, such as a lecture on effective schools research, specific subject areas, and personal and professional development generally, such as stress management for teachers. The objectives pursued within each of these areas were not clearly connected to each other.

Objectives for inservice activities usually involve simple, short-term learning. The focus of these activities typically is on enhancing teachers' routine practice rather than on bringing about broad improvement or shifts in basic approaches to instruction.

The conclusion that objectives for inservice activities are fractionated and rather unambitious seems to apply to inservice for administrators as well. Inservice training for principals has been characterized as a hodgepodge of "quick fix" sessions designed to deal with discrete topics like handling stress or using microcomputers. As McCurdy (1983) noted, such topics are not unimportant, but they seldom represent the type of comprehensive long-term professional development programs that are likely to increase substantially a principal's effectiveness.

Procedures

Traditional professional development procedures include university course work, presentations by experts during a school dis-

trict's one or two yearly "inservice days," and workshops held during the school year.

These traditional procedures used to increase teachers' professional effectiveness have been faulted for failing to assist teachers in translating new ideas into day-to-day practice. They typically are one-time events that appear to have little impact on patterns of instruction.

Over the last decade, new and apparently more effective procedures have been developed, such as the Instructional Theory Into Practice (ITIP) program developed by Madeline Hunter (1976) and the Stallings Effective-Use-of-Time Program (Stallings and others 1978; Sparks 1983). Several promising procedures are described in detail in part 2.

Costs and Benefits

The financial costs of particular inservice programs are seldom reported. A notable exception is the cost analysis contained in a report on the Changing Teacher Practice Program developed at the Research and Development Center for Teacher Education at the University of Texas and implemented in the San Diego School District (Leighty and Courter 1984).

Moore and Hyde's (1981) detailed and refined study of the financing of staff development in three large urban districts produced a number of noteworthy findings:

> The costs of staff development, when they included the costs of trainers and consultants, released time for teachers, teacher stipends for work done after hours or in the summer, and salary increments based on teachers' continued education, were 50 to 60 times larger than the cost estimates that most school personnel provided. The amount actually spent on staff development represented a yearly investment of $1,000 to $1,700 per teacher in the three districts studied.
>
> There was wide variation in the way the districts spent their money for staff development. For example, in one district stipends for teachers represented over 12 percent of the total expenditures for staff development, whereas in the other two districts, teacher stipends represented less than 1 percent of costs.
>
> A high percentage of staff development costs in each district came from local rather than federal or state funds. When districts experienced large financial cutbacks, staff development programs were cut to the bone and only those inservice pro-

grams that were supported by state and federal funds continued to have substantial funding.

In 1976 Schalock (1984) studied the financing of staff development in Oregon. He found that school districts spent substantial sums on staff development (typically between 2 and 5 percent of their total budgets). Other salient findings are as follows:

> School personnel pay for a relatively small portion of their own continued professional development activities. Only 20 percent of the teacher inservice activities studied were paid for by the teachers outright, and only 10 percent of principal professional development activities were paid for by principals. Employing districts are the most frequent providers of payment for inservice activities.
>
> The most common forms of assistance provided by school districts for continued professional development are, in order of frequency, reimbursement for travel and related costs, released days, payment of tuition, school closures, and early dismissal.
>
> The amount of assistance districts provide for inservice education varies greatly. For example, some districts provide as many as seven early dismissal days whereas others provide only two or three.

Finally, there is mounting evidence that, when professional development programs are well designed and carefully implemented, they can increase teacher, program, or organizational effectiveness. Research that sheds light on these potential benefits is discussed in the next chapter.

PART 2

Chapter 3

Increasing Teacher Effectiveness

As noted in the last chapter, traditional procedures used to foster teachers' professional development, such as one-day workshops or presentations by experts in a particular field, have been criticized for failing to help teachers translate ideas for change into practice. In this chapter, we describe research sponsored by CEPM that casts light on more effective ways for promoting teachers' instructional effectiveness.

The first section of the chapter describes research on the effects of coaching teachers in the use of new instructional models. As will be seen, coaching is an intensive activity, particularly appropriate for helping teachers deal with complex instructional changes.

The second section describes research on the effects of involving principals in an inservice program for elementary mathematics teachers. This research puts to the test the assumption that principals' participation in inservice activities for teachers increases the impact of those activities on classroom practice.

The last section highlights similarities and differences between the studies on coaching and principal involvement and discusses their implications for designing and managing professional development programs.

Effects of Coaching

Beverly Showers and her associates at the University of Oregon have uncovered significant findings in three research projects on the effects of coaching teachers in the use of new instructional models. In these studies, "coaching" involved psychological support and technical assistance for teachers who were integrating knowledge and skills acquired through inservice training into their day-to-day teaching practice. These studies make clear that coaching is a potentially powerful approach to increasing teachers' instructional effectiveness.

Study 1—Effects of Coaching on Teacher Practice and Student Learning

Showers' first study of coaching was designed to answer three questions:

1. Do teachers who receive coaching in the use of new models of instruction apply these models more effectively in their classrooms than uncoached teachers?
2. What problems do teachers encounter when they try to use new instructional models?
3. What impact does the use of new models have on student learning?

Design of the study. The study had three phases. In *phase 1*, seventeen sixth-, seventh-, and eighth-grade language arts and social studies teachers received seven weeks of three-hour training sessions in the use of three instructional models. One of these models, "Concept Attainment," is intended to develop students' classification skills. Another, "Inductive Thinking," is designed to help students understand and use processes of scientific inquiry. The third, "Synectics," is designed to increase students' skills in recognizing and creating analogies and in imaginative thinking generally. Each of these models calls for higher order thinking on the part of students, each also requires considerable conceptual sophistication on the part of teachers.

In *phase 2*, nine of the trained teachers were "coached" by Showers in an effort to enhance their use of the models in the classroom. The other eight teachers were encouraged to use the models but received no coaching. As a coach, Showers observed each teacher once a week and provided feedback to the teacher on his or her performance. She also furnished encouragement and support and assisted the teachers in planning subsequent lessons. During both phases 1 and 2, teachers in both the coached and uncoached groups were observed by members of the research staff using a special coding system that provided information on key aspects of teacher behavior and student response.

In *phase 3*, all seventeen teachers were asked to design and implement a special one-week instructional unit. They were provided with instructional resources for the unit, but were encouraged to choose their own learning objectives and teaching strategies. Classroom observations were made during this phase of the experiment as they had been earlier. In addition, at the conclusion of the instructional unit, students were administered two tests. (1) a thirty-five-item objective test designed to assess students' knowl-

edge of the facts and concepts covered in the unit, and (2) an essay test.

Results. Evidence obtained from classroom observations suggested that coached teachers were better able to integrate new models into day-to-day teaching patterns than were uncoached teachers. For example, when teaching the experimental unit, coached teachers spent about twice as much instructional time dealing with concepts and theories as uncoached teachers did. This focus on higher order understandings rather than facts and information was important in the models the teachers learned to use during training.

Interviews with teachers participating in the study as well as observations by project staff suggested that teachers had the greatest difficulty in finding appropriate opportunities to use the models, given their particular textbooks and the curriculum. Language arts teachers who used texts that stressed grammar and mechanics, for example, found it difficult to integrate approaches that called for imaginative thinking and writing on the part of students. These findings suggest important ways that staff development activities are affected by their context. Coached teachers, however, on the whole were better able to adapt the new models of their curricula than were uncoached teachers.

Students of teachers who made extensive use of new models scored higher on the objective knowledge test but (contrary to expectations) no differently on the essay test than did students of teachers who made little use of the models. The absence of differentiation in the essay test scores might have occurred because the instructional unit was too brief to permit students to integrate and apply all the information and ideas they had learned.

Study 2: Long-Term Effects of Coaching

The second study in this line of research on coaching was designed in response to two main questions:

1. Are the effects of teacher training in the use of new models maintained over a six- to nine-month period?
2. Do coached teachers continue to show greater proficiency in the use of these models than uncoached teachers?

Design of the study. Six to nine months after Showers' study, Baker, a doctoral student working with Showers, observed and interviewed teachers who had participated in the study. He asked teachers to teach lessons in which they used the instructional models they had studied during the earlier project. He also interviewed

each of these teachers.

Results. Baker found that coached teachers made more use of the instructional models in their lessons than did uncoached teachers. He also found that both coached and uncoached teachers were better able to apply the models in their lessons than they had been six to nine months earlier. Teachers generally appeared to improve their performance after summer break.

Study 3: Effectiveness of Teachers as Peer Coaches

This study was guided by two questions:

1. Can teachers be trained to coach their peers in the use of new models?
2. Do teachers who are coached by peers apply new models more effectively than uncoached teachers?

Design of the study. Showers recruited six teachers from two school districts to serve as peer coaches. These teachers all had experience in using the instructional models that were the focus of training, and they were familiar with coaching procedures. The peer coaches taught at the middle and junior high levels and specialized in a variety of subject areas: science, social studies, language arts, and mathematics.

Twenty-one additional teachers were selected to serve as trainees. The trainees had no previous experience in using the new instructional models.

The study had two phases. In *phase 1*, the peer coaches received eighteen hours of training. This training was designed to increase their understanding of designated instructional models and ways they might be applied and adapted. The training also dealt with the process of coaching and with issues that can arise when serving as peer coach.

Also during phase 1, the twenty-one teacher trainees received eighteen hours of instruction in the use of two models of teaching. All teachers learned concept attainment, and each teacher then chose one additional instructional model. Choices included Inductive Thinking, Synectics, and a training model appropriate for use in classes that focus on physical, manual, or mechanical procedures.

In *phase* 2, fifteen of the twenty-one teacher trainees were coached by the six teachers who had received special training in coaching. Each peer coach observed and conferred with trainees once a week, following procedures similar to those used by Showers in study 1. For example, coaches used special "Teaching Analysis

Guides" to structure observations of their colleagues' lessons and to provide feedback to them on their performance. Peer coaches were provided with substitutes for the days or partial days spent in observation and conferences.

Project staff members observed each of the twenty-one teacher trainees three times. They also interviewed the teachers to determine their reaction to the models, training, and, for coached teachers, usefulness of the coaching. Teachers were asked to keep logs detailing the frequency, purposes, and perceptions of success or failure of the new models.

Results. The study indicates that teachers can be trained to serve as supportive and effective peer coaches. Analyses of transcripts of conferences between coaches and trainees as well as interviews with trainees indicated that all six of the peer coaches carried out the roles assigned them, including (1) providing support and encouragement to teachers, (2) furnishing technical feedback on teachers' use of new models, (3) helping teachers determine where a model might best be applied, and (4) adapting models to fit the characteristics of particular students.

Showers noted, however, that four of the coached teachers resisted working with a coach. These teachers often cancelled observations and conferences and postponed examining the potential uses of the new strategies until current units of instruction were completed. These teachers were classified as "partially coached" by Showers, since they neither wanted nor received the extent or depth of coaching that other trainees received.

The information collected in the study showed not only that coaches carried out their roles effectively, but that coached teachers used the new instructional models more skillfully and in more appropriate areas of learning than did partially coached or uncoached teachers. Also, coached teachers were more successful in adapting the models to the characteristics of students than were either the partially coached or uncoached teachers. Interestingly, the uncoached teachers practiced using the models slightly more frequently than did their coached peers. Practice alone, however, did not lead to sophisticated use of the models.

Findings from the study also shed light on concerns and difficulties experienced by peer coaches. Coaches often expressed concerns about their competence with the instructional models. Showers noted that it was important for coaches to continue to study and discuss the models, rather than simply focusing on the interpersonal or technical aspects of coaching, since the value of coaching depended in large part on the coaches' understanding of the

models. Showers indicated, furthermore, that it took considerable time and effort for coaches to learn when and how to use the instructional models. Applying the models in different curriculum areas was the greatest difficulty reported by coaches.

Involving Principals in Teachers' Professional Development Programs

Many research studies have suggested that in successful schools principals are "instructional leaders." These principals establish a schoolwide focus on academic achievement, set high expectations for both teachers and students, and convey the belief that the school is responsible for ensuring that students learn. In addition, several studies indicate that principals in effective schools are knowledgeable about current issues in curriculum and instruction and take an active role in teacher inservice programs.

These conclusions about the leadership role of principals in successful schools appear sensible. Nevertheless, the studies from which these conclusions were drawn were primarily case studies of inner-city elementary schools, it is not clear how applicable their findings are to other schools. It is also unclear whether the principal's leadership behaviors actually *caused* the quality of instruction in a school to improve, or whether these behaviors were merely associated with, or even the byproduct of, high-quality instructional programs.

To test the proposition that a principal's instructional leadership has a direct influence on the quality of instruction, Meredith Gall, W.W. Charters, Jr., and Jerzy Wilczynski, all of the University of Oregon, and the authors of this booklet collaborated on a field experiment. The experiment focused on one aspect of instructional leadership. the principal's involvement in inservice programs for teachers. It was hypothesized that inservice teacher programs would be more effective when principals were actively involved in them than when principals were uninvolved.

The following summary of the experiment is adapted from an article written by the research team (Gall and others 1984, b).

The Inservice Program for Teachers

The inservice program was designed to foster teachers' use of a research-based model for teaching mathematics in the elementary school. The model, called *Active Mathematics Teaching* (Good, Grouws, and Ebmeir 1983), provides a framework for designing and managing daily lessons. The model is summarized in table 3-1.

Table 3–1

An Outline of the Active Teaching Model For Instruction in Elementary Mathematics

Daily Review (First 8 minutes except Mondays)

- a review the concepts and skills associated with the homework
- b. collect and deal with homework assignments
- c. give several mental computation exercises

Development (About 20 minutes)

- a. briefly focus on prerequisite skills and concepts
- b focus on meaning and promote student understanding by using lively explanations, demonstrations, process explanations, illustrations, etc.
- c. assess student comprehension
  1. use process/product questions (active interaction)
  2. use controlled practice
- d. repeat and elaborate on the meaning portion as necessary

Seatwork (About 15 minutes)

- a. provide uninterrupted successful practice
- b maintain momentum, keep the ball rolling, get everyone involved, then sustain involvement
- c alert students, let students know their work will be checked at end of period
- d. check the students' work

Homework Assignment

- a assign on a regular basis at the end of each math class except Fridays
- b. assign about 15 minutes of work to be done at home
- c. include one or two review problems

Special Reviews

- a. Weekly Review/Maintenance
  1. conduct during the first 20 minutes each Monday
  2. focus on skills and concepts covered during the previous week
- b. Monthly Review/Maintenance
  1. conduct every fourth Monday
  2. focus on skills and concepts covered since the last monthly review

Source: Table used with permission from *Active Mathematics Teaching* by Thomas Good, Douglas Grouws, and H. Ebmeier. New York: Longman © 1983.

Active Mathematics Teaching was selected for three reasons. First, several studies have shown that students of teachers who use the model make greater than expected gains in mathematics achievement. Second, the model can be used with any textbook or curriculum. Third, the model is fairly easy for most teachers to learn. Active Mathematics Teaching does not require teachers to change the way they think about the content of mathematics or

students' learning outcomes. The model merely provides guidelines for refining and making more systematic teachers' customary approach to managing daily lessons.

Design of the Experiment

All of the fifty-three fourth- and fifth-grade teachers in fifteen schools agreed to participate in the experiment. Six of the schools were in two small rural communities with some light industry. The other nine were in a suburban community outside a large city.

The fifteen schools were assigned as randomly as possible to three groups. Principals and teachers of the five *control* schools did not participate in the inservice. Teachers in the five *regular inservice schools* participated in the inservice program, but their principals did not. Teachers participating in the inservice program were required to attend two three-hour training sessions and to read a teacher's manual.

The other five schools served as the *principal involvement* sites. In these schools, teachers participated in the same program as did teachers in the regular inservice schools, but in addition their principal attended the sessions and read the manual. Following the training sessions, the principals observed teachers' implementation of the model in the classroom and provided them with feedback on their performance. These five principals also met twice to discuss their roles and responsibilities in the experiment and to resolve issues that had arisen in assisting teachers to use the model.

To determine the effects of the three experimental conditions on teacher practice, researchers observed a mathematics lesson in each teacher's class at three intervals. shortly before the inservice program, shortly after the inservice program, and again three months later. The final observation was carried out to assess the "delayed" effects of the program.

To assess the effects of the three conditions on student achievement, two tests were administered before the program and again about three months after the program. One test was locally developed and closely related to the curriculum in the schools. The other test was the California Achievement Test (CAT). Scores from the math computation and concepts sections of the CAT were examined.

Results

The first question of interest was whether teachers' implementation of the active teaching model varied according to the experi-

mental condition. Evidence obtained through classroom observations indicated that teachers in the regular inservice group and the principal involvement group used more of the behaviors called for in the model than did teachers in the control group. Substantial differences between the trained groups and the control group were found with respect to assigning and checking homework, requiring mental computation, and following the pattern for developing concepts specified in the model.

There were few differences in the behaviors exhibited by teachers in the regular inservice group and the principal involvement group shortly after the inservice program. But three months later, when the "delayed" lesson was observed, differences were found between the two trained groups. A higher percentage of teachers in the principal involvement group gave seatwork directions, monitored seatwork, and checked seatwork. Also, these teachers retained their training gains, and some of them actually improved. In contrast, some of the teachers whose principals had not been involved in the inservice program were beginning to lose their training gains.

The second question of interest was whether students' achievement in mathematics varied according to the experimental conditions in which their teachers participated. Achievement scores revealed that students of trained teachers (those in the regular inservice and principal involvement group) made greater gains than did students of teachers in the control group on both the computation and concepts sections of the CAT. These results are consistent with previous research on the Active Mathematics Teaching program.

Another noteworthy finding is that students of teachers in the principal involvement group made greater gains than did students of teachers in the regular inservice group on the locally developed curriculum-referenced test. This finding can be explained perhaps by the effort some involved principals made to focus teachers' attention on the mathematics curriculum on which the end-of-year achievement test was to be based. Through informal communication and discussion, involved principals made it clear to teachers that they were to provide instruction in the skills emphasized in the curriculum. Students in the regular inservice group, however, did better on the computation section of the CAT.

Finally, even though the study focused on improving classroom practice and not on larger issues of program or organizational effectiveness, the participating principals did discuss with teachers the implications of the Active Mathematics Teaching Model for

schoolwide policy. Active Mathematics Teaching requires, for example, that teachers assign homework regularly. Many teachers, however, feel uncomfortable about assigning homework unless their colleagues do also. Involved principals worked with teachers to reach agreement on the homework policy to be followed during the experiment and the way this was to be communicated to parents.

Implications for Design and Management of Professional Development Programs

When viewed together, the two research projects described in this chapter have several important implications for planning and implementing professional development programs.

One implication is that the *objectives* to be accomplished through a program are critical in determining the procedures to be used. In Showers' work, teachers were expected to learn to apply complex instructional models that were quite different from their typical practice. By contrast, in the project carried out by Gall and his colleagues, teachers were expected to use a relatively simple instructional model that was fairly similar to the approach many already used. Coaching was necessary to help teachers learn how to use the complex models appropriately, but a less intensive and less costly training effort was sufficient to prepare teachers to use a simple instructional model. The appropriateness of a training procedure seems to depend on the nature of the objectives one wishes to achieve.

Another related implication of these studies is that certain *technical resources* may be necessary to support implementation of staff development programs. From Showers' research on coaching, one gets the impression that the curriculum and textbooks in some schools were either incompatible with the instructional models or at least were not well-matched with them. Full implementation of the models probably would depend in part on the instructional materials available to teachers.

Resources in the areas of curriculum and assessment were important to the exercise of the principal's role in inservice programs in the study by Gall and his colleagues. One way the principals exerted influence on teachers' practice was by directing their attention to the expectations for student learning conveyed in the district's curriculum in mathematics and curriculum-referenced

tests. It would have been more difficult for principals to maintain a focus on particular academic goals if these goals had not been already formulated in the curriculum and accompanied by goal-based tests.

The studies also cast light on new *roles* that teachers and administrators may play in inservice efforts and the issues involved in learning to fulfill these roles. The role of a peer coach, for example, calls for very different behaviors on the part of teachers than the behaviors required when working with students. Although teachers in Showers' study generally performed well as coaches, some were so concerned about being supportive and encouraging to trainees that they were less effective in giving objective feedback than they might have been. Also some trainees seemed to be threatened by the coaching relationship and resisted coaches' efforts to assist them. A school cannot install a peer coaching system as if it were a simple technical procedure. It takes time for people to become comfortable and effective in new roles.

These projects on teacher coaching and principal involvement in teachers' staff development make clear that well-designed professional development programs can succeed in changing what teachers do and in increasing their effectiveness. They suggest that wide variations in program design may be appropriate to accommodate the range of outcomes desired from inservice activities. They suggest further that various technical resources may be needed and new roles and responsibilities may be required to implement professional development programs. The studies thus give encouragement to planners and providers of inservice programs and also illuminate the complexities involved in promoting individuals' professional development.

Chapter 4

Increasing Program Effectiveness

The professional development procedures described in the last chapter (coaching and principal involvement) were implemented in schools for the express purpose of testing their effects on teacher practice and student learning. These procedures were not intended to deal with changes in curriculum, testing, organizational structures, or other aspects of the school that might influence teaching or learning. Their focus was on improving each individual teacher's skills.

The professional development models discussed in this chapter grow out of a different context. They have been designed as part of large-scale school improvement efforts intended to foster changes that cut across individual classrooms and grade levels. These approaches to staff development involve more than training teachers in the use of a new teaching method. They are intended to prepare staff to implement or improve districtwide instructional programs.

The first section of the chapter discusses the teacher training and support system accompanying the University of Oregon Direct Instruction Follow Through Model for basic academic instruction. Although CEPM did not develop Direct Instruction, it has supported studies of the policy and management issues encountered when implementing the model (Gersten and Carnine 1981).

The second section discusses the approach to staff development taken by the Valley Education Consortium (VEC) in implementing and improving "goal-directed, information-based" instructional programs. Although CEPM and VEC are not formally linked, VEC staff have directed research studies sponsored by CEPM, and two districts in the consortium participated in the principal involvement study described in chapter 3. In addition, CEPM staff have contributed to the consortium's long-range plan for assessing the costs and benefits of its programs. VEC's approach to staff development is highlighted here because VEC's ten-year experience developing and improving such programs is extremely useful to those with similar goals.

Similarities and differences between professional develop-

ment in the context of the Direct Instruction Model and the consortium's programs are highlighted at the close of the chapter.

The Direct Instruction Model

To appreciate the distinctive characteristics of the staff development approach supporting the University of Oregon Direct Instruction Follow Through Model, it is necessary to describe in some detail the nature of the model itself. As will become apparent, there are strong similarities between the kind of training procedures teachers are expected to use with students and the training procedures that supervisors are expected to use with teachers.

The Direct Instruction Model is designed primarily to serve disadvantaged children in the primary grades. It is a highly structured approach to developing basic academic skills. In this model, complex skills are broken down into small, easy-to-understand steps and systematically taught. Students receive both extensive practice in applying skills and immediate, specific feedback on their performance. If students have difficulty in learning a skill, corrective instruction is provided until skill mastery is achieved. Instruction is conducted in small groups to allow for frequent teacher-student interaction (Carnine and Gersten 1984).

What distinguishes the Direct Instruction Model from other structured teaching approaches is that it is anchored to carefully designed curricula, teacher guides, and student learning materials. The curricula and teacher guides indicate in extensive detail what content is to be taught, how it is to be taught, how student mastery is to be assessed, and how errors are to be corrected. Whereas most other structured teaching models consist solely of general guidelines for teaching, the Direct Instruction Model provides student texts and teacher manuals that show clearly how principles and methods are to be applied on a lesson-by-lesson basis.

Finally, the Direct Instruction Model includes a comprehensive system for monitoring both the amount of content students cover and the level of mastery over content students achieve. Tests that are tied directly to the Direct Instruction curriculum are given throughout the year, and test results are used as a guide to instructional planning and decision-making. The model is designed to ensure that all students consistently achieve a high degree of success.

Direct Instruction has been implemented in numerous school districts throughout the country. A comprehensive evaluation of

primary grade programs for disadvantaged children indicated that the model was one of the most consistently effective programs in promoting student learning gains (Haney 1977, Kennedy 1978, Stebbins and others 1977).

Teacher Training and Supervision

In the early years of implementing the Direct Instruction Model, according to Carnine and Gersten (1984), teacher training consisted largely of out-of-class demonstrations and role playing combined with discussions of philosophy and exhortations on the importance of maintaining high expectations for all students and maximizing students' time on learning tasks. As experience was gained in teacher supervision, it became clear that the most effective way to train teachers was by working with them in classrooms (Carnine and Gersten 1984). Supervisors now observe teachers who are using the model for the first time at least once a week. The supervisor provides specific feedback on how the teacher is doing and, during the first few months, will often demonstrate how to use a new technique by "taking over" a group for five to ten minutes. Supervisors also review placement and grouping decisions, primarily on the basis of students' performance on criterion-referenced tests. They also pinpoint classroom management problems and suggest approaches to such problems as low motivation of low-performing students or high noise level. Teachers receive a weekly technical assistance form containing the supervisor's analysis and suggestions (Gersten and Guskey 1985).

This mode of training and supervision is like the coaching described in chapter 3 in that teachers receive frequent and specific feedback on their performance in the classroom. But the training and supervision supporting the Direct Instruction program is much more prescriptive than the kind of coaching used in Showers' studies, in keeping with the highly structured nature of the program. Supervisors make unannounced classroom visits to assess whether teachers are following specified instructional procedures and take corrective action if they are not. Teacher supervision is quite directive.

Managing Professional Development

Reports on implementing Direct Instruction in a large western school district suggest that staff development in this model raises major issues for school managers (Cronin 1980, Gersten and Guskey

1985). Perhaps the most apparent issue is that an unusual amount of time and energy must be invested in teacher supervision. As described earlier, supervisors in Direct Instruction must make weekly visits to each teacher's classroom. Supervisors do not merely provide feedback to teachers on their performance. They actively teach teachers, often demonstrating exemplary practices in the classroom. Supervisors therefore require extensive and specialized training. In addition, they must have the time available to work regularly with teachers on an individual basis.

Many of the school districts in which the Direct Instruction Model is implemented have federal funds to support external consultants and local supervisors. In districts lacking these funds, special attention must be given to the costs associated with the Direct Instruction approach to teacher supervision.

Another issue administrators face is that many teachers are likely to resent the close supervision accompanying the Direct Instruction program, especially during the early stages of implementation (Gersten and Guskey 1985). If a district is committed to using this type of supervision, administrators probably should be prepared to deal with opposition by some teachers. For example, in one urban district using Direct Instruction, teachers at two schools balked at the unannounced classroom visits by supervisors and pressured the school principals to require supervisors to schedule classroom observations in advance. The supervisors opposed this change believing that it would defeat the purpose of their visits. After several meetings and negotiations with building and district personnel, the issue was resolved in favor of the supervisors (Gersten and Guskey 1985). The Direct Instruction approach to supervision is not intended to be modified according to the views and preferences of staff at particular schools. Before adopting such an approach, administrators must decide whether they are prepared to stand behind it should opposition be encountered.

A third issue that managers confront is the long time required to implement the model fully and effectively. As indicated earlier, Direct Instruction is a complex program consisting of curricula, teacher manuals and student texts, and a comprehensive testing program. Neither administrators nor teachers learn to operate the program overnight. In fact, some of the instructional procedures in the Direct Instruction Model—for example, providing appropriate corrective feedback to students—require much time and effort for teachers to master. Evidence also suggests that many teachers need to work with the program for two years before coming to believe that it is in fact effective and deserving of their commitment

(Gersten and Guskey 1985). Thus, a key challenge for administrators is to help teachers take a long view and allow the program a chance to prove itself.

We do not wish to suggest, however, that time overcomes all psychological costs associated with implementing the model. Many teachers who acknowledge that the program is effective nonetheless report that the model makes them feel less like professionals because so many instructional decisions are made for them. In districts using Direct Instruction administrators therefore may need to balance the benefit of increased student achievement with the cost of a diminished sense of professionalism on the part of teachers. There does not appear to be any simple way to resolve this tension. A complex judgment clearly must be made.

The Valley Education Consortium Model

Like the professional development component of the Direct Instruction Model, staff development in the Valley Education Consortium (VEC) is embedded in a larger instructional improvement effort. VEC is an organization of school districts, education service districts, a state-supported educational research and development agency, and a state college. The consortium has been operating for over ten years. It is guided by a research and development model of school improvement. The model emphasizes the importance of developing and field testing instructional programs, systematically evaluating program costs and benefits, and using evaluation results to guide improvements.

Since staff development in the consortium is so directly related to the nature of its instructional programs, we will describe the characteristics of these programs. Following this description, the kinds of staff development activities VEC has undertaken to support program implementation and improvement are discussed. The evolving nature of staff development in the consortium is emphasized.

Background

VEC instructional programs are viewed as *goal-directed* and *information based*. They are goal-directed in that they are organized around explicit statements of student learning goals. The programs are information-based in that they require teachers and administrators to use information on students' goal attainment as a guide

for instructional planning and decision-making and for program management and improvement. Although VEC has developed programs in a number of curriculum areas, here we focus on VEC programs in the basic skills of mathematics, reading, and writing, grades 1-8.

Two features of VEC programs probably should be stressed. One is that, in sharp contrast to Direct Instruction, they do not prescribe instructional methods or materials. The programs provide a well-delineated curriculum and tools for obtaining and interpreting evidence on students' learning progress in relation to this curriculum. But decisions about teaching procedures and student learning activities are left to the discretion of teachers.

A second critical feature of VEC programs is that they are uncompromising in their insistence that both teachers and administrators make active use of evidence of student learning. Teachers are expected to use such evidence for planning instruction, monitoring students' learning progress, and evaluating and improving what they have done. Principals are expected to use information on student learning collected at various points during a school year to monitor the effectiveness of an instructional program for all students in all classrooms in their buildings. Superintendents are expected to review and act upon student achievement information from each building within the district and from the district as a whole. The elements within a VEC instructional program that are designed to assist school personnel meet their expectations are listed in table 4-1.

All VEC programs have been developed in a collaborative manner by staff from school districts and agencies that belong to the consortium. More complete discussions of the assumptions underlying VEC programs, the context in which they have been developed, and the methods used to validate them can be found in a number of sources (Fielding and others 1981; Schalock and Egge 1981, Fielding and Schalock 1983, Schalock and others 1984).

Professional Development for Program Implementation

To establish and operate a VEC instructional program two distinctly different kinds of professional development are required. The first prepares teachers and administrators to *implement* the program. The second helps teachers and administrators learn to *evaluate, troubleshoot, and improve* the program if it is found to be less effective than desired. Sufficient experience has been gained

Table 4–1

Elements of a VEC High Performance Instructional Program in the Basic Skills

1. A listing of grade-level learning goals designed to stretch the learning abilities of students and build cumulatively upon one another from grades 1 through 8.
2. Test item pools and other assessment procedures for teachers that tie directly to these designated learning goals at each grade level.
3. Grade-level tests of goal attainment that are administered by a district at either the beginning of or midway through a school year, and at the end of the school year to determine student progress toward goal attainment (in all cases VEC grade-level tests consist of items drawn from the resources for assessment that are available to teachers).
4. Computer-prepared reports for teachers on the performance of individual students relative to goal attainment following each district administration of grade-level tests.
5. Computer-prepared reports for principals and central office administrators on classroom, grade-level, building, and district performance of students relative to goal attainment following each district administration of grade-level tests.
6. An end-of-year program evaluation report for superintendents that summarizes all information available on program effectiveness for the year. This includes an analysis of gain scores from the first to second administration of grade-level tests, information about level-of-program implementation on a building-by-building basis, student attitudes toward the content of an instructional program, the quartile performance of students on a standardized achievement test, and an analysis of all these factors separately for "extreme case" (slow and fast learning) students. (This report is optional due to the cost of preparation.)
7. An end-of-year research report for superintendents that portrays on a year-by-year basis leading indicators of program effectiveness against the added costs and other consequences of operating the program. (This report is optional due to the cost of preparation.)
8. Grade-level handbooks for teachers that provide guidelines for using items 1 through 4 above.
9. Program implementation handbooks for superintendents, principals, and lead teachers that provide guidelines for implementing, evaluating, and improving a VEC instructional program.
10. Technical manuals that describe the reliability and validity of VEC

grade-level tests, a user manual that describes the VEC approach to program evaluation, and a user manual that describes the VEC approach to improving an instructional program when it is found to be less effective than desired.

attempting to do the former that its implications for staff development are now fairly clear, and these are described in the paragraphs that follow. Preliminary experience with the latter has led to at least an awareness of the staff development tasks ahead. These are summarized briefly in the next section.

Preparation of lead teachers. Lead teachers play a critical role in the Consortium's approach to staff development. They are teachers who have had an active hand in developing VEC programs and are well versed in the programs' underlying philosophy and mode of operation. As will be described later, lead teachers are expected to work with principals in their buildings to introduce VEC programs to the staff and to assist colleagues in program implementation. They also increasingly are called upon to conduct inservice training on the use of VEC programs outside their school or district. Finally, they assist in monitoring program implementation by administering questionnaires to their colleagues on the level of use of VEC programs.

Lead teachers prepare for their roles in two ways. One is through their participation in product development. Many of the VEC lead teachers have been involved for five or six years in building and refining curriculum, test items, and other assessment procedures contained in VEC programs. They have done this both during the school year with released time furnished by their districts and during the summer. Lead teachers not only have drafted products, but have modified and extended them in view of critiques from both peers and experts in the field. They have gained invaluable insights about the nature of goal-based programs through this demanding development work.

Lead teachers also are prepared for their role through a seminar that meets periodically throughout the school year. Districts provide released time for teachers to attend. The seminar focuses to a large extent on ways in which lead teachers can assist colleagues in understanding and using VEC programs. Suggestions for conducting inservice sessions with colleagues are presented by lead teachers who have successfully led such sessions, and these are then discussed by the group as a whole. Ideas for dealing with individual teachers who either do not like or have difficulty using

VEC programs also are discussed. In addition, ways of working cooperatively with principals are addressed.

These seminars for lead teachers are designed to be true seminars. Ideas for working with colleagues and principals are discussed and illustrated, but no single set of methods is prescribed. The seminar helps inform lead teachers about the kind of training and support they might provide their peers, but designs for specific inservice activities are prepared by lead teachers and principals in their buildings.

Training for teachers. In schools that have adopted a VEC program, each teacher receives a handbook for program implementation. These handbooks—prepared under the guidance of lead teachers—contain information on preparing goal-based tests for various instruction-related purposes, on managing and interpreting information coming from these tests, on ways of accommodating fast- and slow-learning students, and on related issues pertaining to implementation.

VEC has found that teachers do not generally read these handbooks fully. This problem has heightened the role that lead teachers and principals play in teachers' professional development. Lead teachers and principals are expected to hold inservice sessions with staff to focus attention on the guidelines contained in the teachers' handbook, and to take steps needed to ensure that these guidelines are followed. But as indicated earlier, during the several years in which VEC programs have been implemented, no single "best" approach to carrying out teacher inservice and support has emerged. Variation in inservice activities across schools and districts is striking. In one school, the principal and the lead teacher work as a team in conducting periodic inservice sessions with the staff. In another school, the principal confers individually with each teacher in the building about test results from his or her class and their implications for instructional planning and improvement. In another district, lead teachers and a district curriculum specialist seem to carry the burden for inservice training and support, and principals have limited involvement. Although definite teacher training functions must be carried out, the districts and schools in the consortium have evolved rather distinctive ways of doing this.

Training for principals. In the early years of the program, the consortium had no formal training program for principals. It was assumed that a half day of orientation about the nature and operation of goal-based instructional programs and an accompanying discussion of the roles and responsibilities of lead teachers and

principals for program implementation were all that would be needed.

After it became clear that this training was not sufficient, several different approaches to staff development for principals were tried. One of these brought superintendent and principal teams together from VEC districts to learn about VEC programs more fully. Another brought principals and lead teachers together for the resolution of widely shared problems. Both turned out to be perceived by principals as largely a "waste of time." Principals appeared to regard the VEC program as something made by teachers for teachers, having no real implications for school managers. Out of this experience it became clear that for principals to become knowledgeable about issues pertaining to the implementation of VEC programs, superintendents would have to assume responsibility for seeing that it happened.

The consortium currently is in the process of working with superintendents to develop training programs for principals. These programs will reflect what superintendents believe principals need to do to implement a VEC instructional program effectively within their buildings and how this program connects to program management and operation within the district as a whole. Two assumptions underlie the development of these programs. (1) superintendents will make clear to their principals that program implementation is a high priority and that the supervision and evaluation of building administrators will take this into account, and (2) the superintendent will in fact operate the training programs for principals within his or her own district.

Training for superintendents. Until now the consortium has had no formal training program for superintendents. As members of the consortium's Board of Directors, superintendents have been reasonably well informed of program characteristics and procedures, and guidelines have been available relative to the superintendent's role in program implementation, but no formal training has been provided in either of these areas.

Beginning with the 1985-86 school year, this practice will be changed. Superintendents of consortium districts currently are developing an implementation handbook for superintendents that parallels the handbook for principals, and workshops will be provided for all superintendents about the content and use of these two handbooks. The consortium's gradual recognition of the essential role superintendents play as program managers and change agents within their districts parallels the emergence of this theme

in current literature on school improvement (Cox 1983, Fullan 1982, Schlechty and Joslin 1984).

Professional Development for Program Improvement

It was not until the 1984-85 school year that the consortium had to confront the issue of improving the operation of its instructional programs and the role staff development is to play in this process. Annual program evaluation reports are now available to VEC superintendents, and these graphically point up the strengths and weaknesses in an instructional program within a district. They do this on a goal-by-goal basis for each grade level in each building as well as for the district as a whole.

On the basis of these data it is clear that all current VEC programs need to be strengthened in one or more goal areas in all the districts in which they are being implemented. Although growth in student learning has increased over the past three years in nearly all goal areas addressed through these programs, there is still considerable room for improvement generally and a great deal of room for improvement in particular goal areas.

The consortium currently is in the process of designing training programs for superintendents and principals that prepare them to review and act upon the information contained in reports on program effectiveness. Several superintendents who have worked extensively in the areas of program evaluation and improvement are essentially serving as "lead superintendents." They are assisting in the design of the training programs. They also have made a commitment to lead inservice sessions for fellow administrators once the training programs are designed. This training will deal not only with the interpretation of program evaluation reports, but with procedures for pinpointing causes of low performance and measures that can be taken to overcome problems.

Professional development in the Valley Education Consortium now emphasizes training for superintendents more than does any other model of inservice education of which we are aware. The superintendent appears to play an absolutely key role in both implementation and improvement of goal-directed, information-based instructional programs. Although lead teachers and principals obviously are important actors in the VEC staff development model, they are not likely to be very effective unless the superintendent is both committed to and knowledgeable about the program.

Comparison of the Direct Instruction and Consortium Models

In the Direct Instruction and consortium models, staff development has a similar overall purpose: to enable staff to work in a systematic and coordinated way toward the attainment of clearly established student learning goals. Inservice training and support are intended to ensure not only the effectiveness of individual teachers, but the effectiveness of instruction across classrooms, grades, and schools. Toward this end, staff development in both models emphasizes the importance of implementing a districtwide curriculum and using measures of student learning that tie directly to this curriculum.

Beyond this general commonality of purpose, there are large differences in the strategies for professional development used in the two models. In the Direct Instruction Model coordination of instruction is achieved not only through a common curriculum and corresponding testing program but through clearly specified instructional procedures. Staff development is largely a matter of enabling teachers to apply a carefully developed technology of instruction and of enabling administrators to apply an equally well-developed technology of supervision.

The consortium's programs, though also relying on a common curriculum and a curriculum-aligned assessment system to ensure coordination of instruction, prescribe neither instructional procedures nor methods of classroom supervision. Staff development in the consortium's context is designed to assist teachers and administrators in using program-related tools and resources to make decisions and solve problems. Guidelines and support for decision-making and problem-solving are provided, but particular behaviors or methods are not specified. Perhaps as the consortium learns more about managing goal-based instructional programs, a more clearly specified technology will be developed. At this point, however, differences between the approaches to inservice training associated with the Direct Instruction and consortium programs are perhaps more noteworthy than the similarities.

Chapter 5

Increasing Organizational Effectiveness

The last two chapters have dealt with professional development for instructional improvement. In this chapter, attention shifts to a very different kind of staff development—one that focuses on strategies for organizational improvement. We believe that inservice programs for increasing a staff's ability to analyze and respond effectively to organizational issues, though less often discussed and implemented than instruction-related inservice programs, are no less important. In fact, as will be indicated later, inservice programs in organizational development can help to establish a school climate and environment that permit instructional innovations to be implemented more fully and purposefully.

The chapter describes a long line of work in organizational development under the leadership of Richard Schmuck and Philip Runkel. The Center for Educational Policy and Management's program in organizational development has assisted the staffs of numerous schools in becoming more effective and creative in defining, understanding, and solving organizational problems. In addition, a research component was built into this work to test and refine the theory and technology that supported it.

This chapter is divided into three parts. The first discusses the goals and assumptions of inservice programs in organizational development (OD) and the methods used to accomplish those goals. The second describes a long-term OD project in one district in Oregon. This project has been selected because it is particularly well documented and illuminates many issues surrounding professional development for organizational change. Conclusions about designing and carrying out inservice programs in organizational development are presented in the final section.

The chapter draws heavily upon a book by Philip Runkel and his colleagues entitled *Organizational Renewal in a School District. Self Help through a Cadre of Organizational Specialists* (CEPM 1980). Information from the third edition of *The Handbook on Organizational Development in Schools*, by Richard Schmuck and Philip Runkel

(Mayfield 1985), also has been included.

Goals, Assumptions, and Methods

CEPM researchers have carefully formulated the purposes of inservice programs in organizational development, the assumptions underlying those programs, and the strategies that can be used by consultants and facilitators to implement those programs in the school setting.

Goals

The overall goal of professional development programs in organizational development (OD) is to increase the capacity of schools to renew and improve themselves. More specifically, OD generally is intended to enable district and school staff to

1. choose problems to work on, the solutions to which will have important benefits for the organization
2. maintain a lively access to fresh ideas and other resources from both inside and outside the organization
3. take action when a feasible plan is reasonably well worked out
4. assess progress toward district or school goals systematically and periodically

The goals listed above indicate the ultimate aims of OD. To guide particular staff development efforts, however, more specific objectives typically are established. In the initial stages of professional development, objectives usually deal with improving one-to-one communication between individuals, such as developing skills in communicating effectively when feeling strong emotion, or skills in eliciting or giving relevant information during discussions. As these objectives are met, further objectives are formulated that deal with goal-setting, communication, and problem-solving in work groups, such as a teaching team, a budget committee, or a superintendent's cabinet.

The most complex and long-term objectives are established for the staff of a school as a whole. Objectives for schoolwide inservice activities focus on broad abilities, such as the ability to solve problems that cut across different groups in a school; the ability to establish procedures for gathering and discussing new ideas and for translating them into action, and the ability to assess the costs and benefits of organizational change.

Assumptions

OD is based on the assumption that a school's capacity for problem-solving is crucially affected by *norms*. Norms are shared expectations for behavior. They indicate how things are to be done and who is to do what with whom. While some norms may be expressed in formal policy statements, the most powerful norms in a school often develop informally through day-to-day interactions.

The strength of norms depends to a large extent on the rewards or satisfactions they bring to those who follow them. In CEPM's work in organizational development the assumption is made that there are three major types of satisfaction that an organization can provide its members. achievement (being successful in accomplishing tasks), affiliation (feeling of belonging and affection), and power (having reasonable control over one's work). According to OD theory, schools can change their norms to increase achievement, affiliation, and power and enhance each individual's satisfactions and organizational effectiveness.

Inservice programs in organizational development enable staff to critically analyze the norms that influence life in schools and classrooms, and to modify norms as needed. The assumption underlying these programs is that problems in a school's climate or organizational environment are not primarily the result of individuals' lack of skill or commitment, but the result of deficiencies or inequities in school norms. Inservice programs in organizational development therefore do not deal with an individual's professional development, but rather with the development of a staff's collective capacity to understand and improve the school as an environment in which to work and learn. Individuals might increase their understanding of organizational issues and problem-solving strategies, but the primary benefits of inservice programs in OD come not to the individual but to a group or school as a whole.

Methods

Various methods are used by OD consultants or facilitators to help school personnel improve their capacity for interpersonal and group communication and collective problem-solving. These methods include training, survey-data-feedback, constructive confrontation, and process observation and feedback.

Training involves focused skill-building sessions. As a trainer, the OD specialist often assigns readings, gives brief lectures, and

designs structured learning activities. Training might be provided, for example, to help a group learn to use interviews as a way of gathering information about the climate of a school.

In *survey-data-feedback*, information is collected systematically about an issue of common concern and reported to appropriate groups for use in diagnosis, planning, and problem-solving. OD specialists using this technique must be skilled in designing data collection instruments and in organizing and displaying data in meaningful forms.

Constructive confrontation is used to help conflicting groups clarify the sources of their conflicts and work toward an effective resolution. The OD specialist brings together the conflicting groups, assists them in making explicit the perception that each has of the others, helps to clarify common concerns, and suggests procedures for dealing with these concerns.

When carrying out *process observation and feedback*, the OD specialist sits with the client group during its work sessions and observes how it functions. The specialist offers comments and questions from time to time to focus the group's attention on its way of working. The purpose of process observation and feedback is to help clients gain a better understanding of their strengths and weaknesses in their current working relationships and to establish procedures and reach agreements that will improve their capacity for collaborative work in the future.

A school that wishes to increase its overall adaptability and effectiveness must develop a long-term plan for change in which the strategies described above are organized and sequenced to promote particular goals. It is possible to use one strategy for a brief period to help accomplish a narrow objective, such as improving administrative meetings, but when broader changes are desired, a combination of strategies phased over an extended time is needed.

Research on Organizational Development

In this section we describe a six-year OD project in one school district in the Northwest initiated by CEPM researchers Runkel and Schmuck and their associates.

Phases of the Project

We divide the project into three phases. (1) entry and diagnosis, (2) early inservice activities, and (3) development and oper-

ation of a local OD "cadre."

Entry and diagnosis. To initiate the project, Schmuck and Runkel were invited by the superintendent of a district they dubbed the "Keele" district to discuss ways OD consultants might provide assistance to the district, which, by all accounts, was suffering from interpersonal and organizational problems. After interviews and meetings with district administrators, Schmuck and Runkel reached agreement with the superintendent's cabinet to initiate OD training and consultation. It was agreed further that the OD project was to be a minimum of two years in length and was to focus first on improving administrators' working relationships and problem-solving processes and then on improving norms and processes used by school staffs generally.

Although these agreements with the superintendent's cabinet provided a good foundation for the project, CEPM staff were well aware that unless agreements were struck with other important groups in the district little progress could be made. Accordingly, informal meetings were held between project staff and building principals and with representatives of the local education district. These meetings served to widen the base of support for the project.

Before designing any training activities, CEPM staff conducted a broad assessment of the district's current functioning. Interviews with 50 staff members confirmed earlier diagnoses. People repeatedly expressed confusion about roles, responsibilities, and decision-making procedures. Feelings of isolation and frustration were widespread. Conflicts surfaced between many groups—line versus staff, new versus old, teacher versus administrator, and so forth. The interviewers also uncovered considerable suspicion on the part of school personnel toward the OD specialists themselves.

Early inservice activities. OD specialists from CEPM conducted four inservice sessions for *administrative groups* during the project's first year. The first event was a week-long workshop attended by nearly all key line personnel, including central office administrators, principals, and leaders in the Keele Education Association. Both constructive confrontation and training were used. Constructive confrontation permitted each group to tell the other groups about the organizational problems it perceived to be undermining attempts to collaborate. Training focused on communication, problem-solving, and decision-making skills. The inservice work appeared to be successful in surfacing and clarifying some long-standing organizational conflicts and setting the stage for subsequent inquiry and problem-solving.

Other inservice sessions were held with members of the departments of student personnel services and curriculum, the school board, and the business office. Each focused on communication and problem-solving. Training similar to that in the earlier workshop was the major method used in the workshops, though constructive confrontation also was used in the session with the school board. That session grew out of a rather acute conflict that erupted when the assistant principal of a school prohibited a speech by a member of a left-wing political party who had been invited by teachers to address social studies classes. The school board, the superintendent's cabinet, and several teachers and principals met with OD consultants to clarify the problem and work toward its resolution.

As the inservice sessions with administrative groups drew to an end, work with the staffs of five schools began. Inservice workshops were conducted for all or part of the staffs of two elementary schools, a junior high school, and two high schools during the project's first year. Project staff and district administrators selected these schools to serve as sites for the OD work. Although the district requested that schools participate, no school was required to do so.

In each of the schools, inservice activities were guided by the results of interviews with faculty and the building principal. The interviews revealed serious conflicts in all schools. In one elementary school, for example, the staff was expected to teach in teams, but there was widespread uncertainty about how to establish and operate teams. In the junior high, there was a lack of clear goals for the school, little coordination between departments, confusion about the roles of building administrator and department heads, and a perceived lack of communication and support from the central office. Inservice sessions were held in the schools, ranging in length from just a single day in one school to a series of sessions over a four-month period in another. The focus of the workshops varied according to the type of concerns expressed by school staff.

Development and operation of a local OD cadre. To make a substantial difference, OD must become an approved and regular part of a school's activities. CEPM staff hoped from the outset of the project in Keele to help make OD an integral aspect of the district's operation by leaving behind what they call a "cadre" of skilled persons that would stimulate and guide continued efforts at organizational renewal. Such a cadre of 23 individuals was formed in the spring of the project's first year. It consisted of central office personnel, teachers, counselors, and building administrators.

The district provided funds for a halftime coordinator, released time for cadre activities, and a small budget for supplies.

In spring of the project's first year, the cadre participated in a two-week workshop designed to build the cadre into a cohesive group, increase members' consultation skills, and form "intervention teams" that would design and lead particular inservice activities in the schools. Over the next seven months local cadre members carried out a number of interventions that dealt with issues in areas such as student conduct and discipline, communication between the district and the community, and relationships between a principal and staff members. One team created a two-course sequence in communication skills and group processes that was repeated annually. By the early spring of the project's first year, local cadre members essentially managed the cadre on their own, and CEPM staff prepared to withdraw from the district.

Over the next six years, the cadre carried out inservice activities with ten of the district's fifteen elementary schools, one junior high, and one senior high. The cadre also provided training to many administrative groups, including the superintendent and his cabinet. For example, the cadre was asked to observe and debrief school board meetings with the cabinet. In all cases, the cadre intervened only when invited to do so.

The cadre officially disbanded in its fifth year. The main reason seemed to be that insufficient released time was available to permit the OD specialists to carry out regular consultation and training. The budget for the cadre had been eliminated during the previous year. Although the cadre continued to operate informally for some time because of the personal commitment of many of its members and the demands for the cadre's services, it was not possible to sustain a full-fledged OD program. Nevertheless, important effects of the cadre endured.

Assessing the Effects of the Project

The main method used to assess the effects of the project was a series of questionnaires. Questionnaires were administered once each year for the first five years of the project. Four forms of the questionnaire were constructed, one for district administrators, one for building administrators, one for teachers and instructional support staff (aides and librarians), and one for service personnel (secretaries, custodial staff, cooks). Questionnaires were administered in two other districts comparable in size and setting to Keele that

had not participated in OD efforts. Those districts served as control groups.

The questionnaires dealt with various interpersonal and organizational aspects of life in school. Topics investigated included "Communication during emotion," "Openness to information," "Responsiveness," "Procedures-in-meetings," "Awareness of functioning communication channels," "Decision making by teachers concerning curriculum and student conduct," and several others.

Results

Results from the questionnaires were generally encouraging. They are summarized below:

1. Schools participating in the OD effort showed higher averages on the "tests" of communication during emotion, openness to information, and responsiveness than did schools that did not participate in OD. The effect of participation seemed to be greatest on communication during emotion.
2. School staff that established collaborative problem-solving and decision-making structures showed heightened communication skills for a year or so after taking on the new structure compared to schools without collaborative structures. After two years, however, the effect declined, except in schools that also received explicit training in communication skills.
3. A small amount of training in communication and organizational skills may do more harm than good. Whereas schools that received sixteen hours or more of training in communication and twenty-four hours or more of training in conducting meetings showed increases in these skills, schools that received less than those amounts actually seemed to show decline in skill.
4. Staff in schools that participated in OD showed a greater awareness of functioning communication channels (the norms governing the exchange of information, ideas, and feelings in a school) than did staff in untrained schools. Results also suggested that trained staff were more likely than untrained staff to communicate with others when choosing teaching methods. Participants in OD also indicated a larger role in making decisions about curriculum and student conduct than staff in nonparticipating schools.

5. Elementary schools with OD training and consultation more frequently established team teaching successfully than did those without training.

Conclusions and Comments

On the basis of the case study reported here and related research in organizational development in schools, a number of conclusions and comments can be offered. One is that there appears to be a serious need to improve the working relationships, problem-solving processes, and decision-making structures in many schools. Responses of teachers and administrators to the diagnostic interviews conducted by CEPM staff in the Keele district, for example, revealed widespread uncertainty about school and district goals and procedures and about the different responsibilities that individuals in the school system were to carry out. As a work environment, schools in the Keele district were in an unhealthy state. Clearly, instructional skill-building sessions for teachers, or even broader program improvement efforts, would not have been sufficient to improve the way in which people in the Keele district related to each other professionally and dealt with common problems. The need for inservice programs in organizational development in schools may be greater than generally recognized.

Another conclusion that can be drawn is that the initial planning of an OD effort must be done with considerable care. District leaders and organizational consultants must be clear about whether the project is to promote organizational improvement generally or to help groups deal with a specific issue such as a proposed change in the curriculum or a consolidation of schools due to declining enrollment. In addition, meetings need to be held with representatives of all groups to be affected by the project to ensure that, at the very least, they are aware of the project and the service it is to provide. Participants must agree to a tentative sequencing of training and consultation, as well as an initial plan for monitoring the progress of the project and improving it as needed.

A third conclusion is that organizational development takes time. This is clearly indicated in the finding that small amounts of training may do more harm than good. Limited training may help groups identify areas of conflict without providing them with the skills to resolve it. OD efforts should not be reduced to a few sessions in communication or group process skills.

Research in the Keele district and elsewhere also demonstrates

how important it is to establish a local team of OD specialists. In Keele, the OD cadre became a well-organized, self-renewing group that worked effectively with school staffs, administrative groups, and groups linking the district with the community. Runkel and his colleagues candidly acknowledged that interventions in which the cadre shared leadership responsibility with CEPM staff or interventions the cadre conducted entirely on their own generally had more favorable results than interventions CEPM staff conducted alone. Without the cadre, organizational development would not have become integrated into the day-to-day operations of the district. External consultants probably are needed to assist in the design and introduction of a program in organizational development and in training a local cadre, but an improvement effort that relies solely on external agents stands little chance of making a lasting difference in a district. Whether a district employs people full time to serve as OD specialists or supports specialists on a part-time basis depends of course on the size, resources, and priorities of the district. In all cases, though, a local team seems essential to the long-term success of OD.

A particularly intriguing finding is that elementary schools that received high levels of OD training and consultation were more successful in implementing team teaching than were schools that received low levels of training and consultation. This suggests that OD efforts may increase a school's readiness for innovations and its ability to make the changes needed to permit innovations to endure.

PART 3

Chapter 6

Guidelines for District Administrators

The last several chapters have summarized a variety of staff development programs and research studies on staff development practices. In this chapter and the one that follows, we derive from this base of information and experience and from additional sources of knowledge a set of guidelines for designing and managing professional development programs.

The guidelines presented in this chapter are for superintendents and central office staff. They reflect a growing awareness in the literature on school improvement of the crucial roles that superintendents and other central office staff, such as assistant superintendents and curriculum coordinators, play in initiating, guiding, and sustaining instructional improvement (Cuban 1984, Dianda 1984, Fullan 1982, Huberman and Miles 1984, Purkey and Smith 1985).

We describe in this chapter seven functions that district administrators can carry out to ensure that their district's professional development programs are as meaningful and effective as they can be:

1. Establishing priorities
2. Developing designs
3. Clarifying roles and responsibilities
4. Providing support
5. Monitoring progress
6. Evaluating effects
7. Comparing costs and benefits

Establishing Priorities

District administrators need to make clear the priorities and goals for professional development in the district as a whole. In chapter 2 we referred to an accumulating body of research indicating

that professional development rarely responds to overall district priorities for improvement. Inservice activities are more likely to deal with a series of discrete and unrelated topics or objectives than a common theme. It appears that one of the most important responsibilities of central office staff is to anchor plans for staff development to long-term district goals.

We suggested in earlier chapters that district priorities for staff development may be established in different ways. In the Valley Education Consortium, for example, it is expected that lead teachers, building administrators, and the superintendent of a district will meet as a team to review evidence on the effectiveness of the district's instructional programs and to "troubleshoot" for causes of ineffectiveness. If the team finds that insufficient or inadequate opportunities for professional development are in part responsible for the problems uncovered, then proposals for appropriate inservice activities are to be developed.

In the study of organizational development in the Keele district, we saw that the need for a districtwide commitment to OD was sensed first by a few administrators in the district and then systematically confirmed through diagnostic interviews and meetings with representatives from a variety of groups in the district.

Although these examples suggest that a district's priorities for improvement grow out of documented deficiencies in particular aspects of schooling, priorities for improvement may also reflect a desire to take advantage of new developments in a field or to build on strengths staff currently possess. For example, we know a half dozen districts in our area that have organized inservice activities for teachers and administrators around Madeline Hunter's "Instructional Theory Into Practice" model or around findings from the research on school effectiveness. In these cases, staff development is not in response to low student achievement or poor school climates, but is part of an ongoing effort to keep abreast of and apply new and effective practices.

There thus appear to be different ways of establishing a focus for inservice activities. The important point seems to be that districts should systematically establish priorities for improvements, the specific method for doing this is not a primary issue here.

In addition to establishing district goals for professional development, superintendents and members of the central office staff may provide technical assistance to principals and building personnel in conducting needs assessments and related priority-setting activities in individual schools. Various methods for carrying out

school-based needs assessments and goal-setting have recently been described, including the school profiling procedures developed by Blum and his colleagues (1985) at the Northwest Regional Educational Laboratory, the needs assessment strategies developed by Sparks and her associates (1985) in Michigan, and the approach used by the West Linn High School in Oregon (Ward 1985). Although these methods are intended to be used in the context of individual schools, district staff can help make the methods available to building personnel and may also be able to provide assistance in data collection, organization, and analysis.

Developing Designs

Once priorities and goals for professional development are established, design issues need to be addressed. Central office staff play a key role in shaping designs for districtwide inservice programs, and, as Cox (1983) has documented, may provide invaluable assistance to building staff in developing designs appropriate for their particular settings.

As the research discussed earlier suggested, designs for professional development programs should be matched to the purposes they are intended to serve, the outcomes they are expected to produce, and the people who are to participate in them. Table 6-1 illustrates some of the ways designs for professional development can vary according to purposes, goals, and participants.

Although the designs for staff development described in this booklet emphasize the implementation of new instructional models and programs or the development of new school norms, systems for teacher or administrator *evaluation* also may constitute a "design" for professional development. McGreal (1983), for example, has described personnel evaluation systems that have been developed for the express purpose of promoting professional growth. We will refer to models of teacher evaluation and supervision again in the next chapter on the principal's role in professional development programs.

Clarifying Roles and Responsibilities

Most of the professional development programs described in this booklet require a variety of roles and responsibilities. In the Valley Education Consortium, for example, lead teachers, princi-

Table 6–1

How Designs for Professional Development Vary in Response to Participants, Purpose, and Goals

Participants	Purpose	Goals	Designs
First year teachers	Ensure individual effectiveness	Establish and maintain fair and effective classroom management procedures	A three-day workshop before school begins in the fall, led by a master teacher Bimonthly observation of a teacher by a mentor appointed by postobservation conferences and problem-solving sessions Monthly seminars with other first-year teachers in the district
All elementary school teachers in the district	Increase program effectiveness	Implement a new writing program successfully	A half-day district-wide orientation to the program in May, about four months before implementation is to begin (facilitated by program developers and district specialists) Five days of training in the summer for lead teachers from each elementary school (facilitated by program developers and district specialists) Principals attend one and a half days of this training Two days of training in late August for returning teachers to prepare them for initial implementation (facilitated by lead teachers and principals) Released time provided for lead teachers to observe and confer with colleagues about implementation issues, and to meet periodically with principals and district specialists
All administrators and department heads in a high school	Increase organizational effectiveness	Improve ability to work as a team in identifying, clarifying, and solving school problems	Orientation and planning session with two members of a local OD cadre Several months of training in communication and problem-solving skills, and in conducting effective meetings Several months of training in communication and problem-solving

pals, district program managers, superintendents, and consortium staff all have different roles to play in inservice activities intended to foster program implementation and improvement. Similarly, in implementing the Direct Instruction Follow Through Model, external consultants, local supervisors, and district and building administrators assume different responsibilities for staff training, supervision, and support. One of the most important functions that district administrators can perform is to ensure that the various participants in a staff development program are clear about who is responsible for what. Even if district administrators do not have an active role in training or supervision, they can help ensure that the work to be done by trainers, supervisors, consultants, and other support personnel is well coordinated.

Providing Support

In addition to helping building staff develop needs assessment strategies, design optimal inservice programs, and coordinate work to be done, the central office commonly must carry out various support functions in professional development programs. One common form of district support is providing released time for teachers. Released time was required in each of the studies and projects reviewed earlier in the booklet. Peer coaches, lead teachers, and members of local OD cadres, for example, need time away from the classroom to prepare for and carry out their roles. In addition, summer stipends may be needed to support teachers' work or special projects, as was mentioned in the description of VEC's school improvement effort.

Another common form of district support is finding appropriate consultants and facilitators for staff development programs. For example, in the OD project undertaken by the Keele district, it was the superintendent's office that initiated contact with OD specialists at CEPM and arranged for their assistance. In the Valley Education Consortium, district administrators often contact lead teachers from outside the district who have expertise in a particular aspect of a VEC program, such as assessing students' skills in problem-solving in mathematics and using information coming from these assessments. District curriculum coordinators make a point of knowing where special pockets of talent can be found and draw upon this talent whenever possible.

Cox (1983) has discussed the kind of informal, ongoing support that comes when district staff are involved with a project on

a day-by-day basis and regularly interact with teachers and administrators about implementation issues. But we recognize that such an intense level of participation and support from district staff is not feasible in many cases. To the extent that district administrators can work with building administrators in establishing collaborative support structures in individual schools, such as peer observing and coaching arrangements, the need for day-to-day district-level support appears to be lessened.

Monitoring Progress

Well-designed staff development programs usually include procedures for tracking the progress participants are making in implementing desired practices and for detecting any problems that arise during the course of implementation. An example of a monitoring procedure is the classroom observation method used by principals in the principal involvement study summarized in chapter 3. The classroom observations and regular review of students' test scores that supervisors in Direct Instruction conduct also illustrate a form of monitoring. Yet another example is VEC's use of questionnaires to assess the level of implementation of consortium programs.

Although district administrators may not personally be involved in gathering information on the implementation of staff development programs, they typically are involved in setting up or managing a monitoring system. For example, district administrators in the consortium help to design the questionnaires on implementation referred to above and are responsible for distributing those questionnaires to all lead teachers and principals in their district. Even when inservice programs are initiated and managed at the building level, district staff might assist in developing strategies and tools for monitoring program implementation.

Evaluating Effects

Much of what was written on monitoring the progress of a staff development program applies to evaluating its effects. Both activities obviously require clarity about what, how, and when information is to be collected and managed and how it is to be interpreted and acted upon. But evaluation focuses less on short-term implementation issues and more on questions of program impact and costs. In the research reported in chapter 3 on peer

coaching and the principal's involvement in inservice activities, for example, steps were taken to assess the effects of professional development not only on teacher attitudes and practice, but on student learning gains.

The most important recommendation we wish to make about evaluation is that, to the extent appropriate and feasible, information that is already regularly collected on the effectiveness of instructional programs and on the school as an organization should be used to gauge the impact of professional development programs. In our experience, few districts have either the time or the resources to develop separate and distinct data collection measures to evaluate each new professional development program they implement. If an information management system is already developed that regularly provides evidence on the performance of instructional programs, on school organization and climate, or on related variables, districts can use this information in determining the impact that particular professional development programs may have

For example, the field experiment on the effects of involving the principal in an inservice program for teachers described in chapter 3 was evaluated in part through the use of locally developed, curriculum-referenced tests. These tests were not developed simply for the purposes of the experiment. As indicated in chapter 4, they form an essential component of the information management system in mathematics that districts in the Valley Education Consortium have developed. Evaluating the effects of professional development efforts is a much easier, and often more meaningful, task when districts have an ongoing system for monitoring key indicators of program and organizational effectiveness.

Of course, creating a workable system for collecting and managing information on school programs, school climate, or other aspects of schooling is no small job. The Valley Education Consortium has spent over six years in developing its programs and the information management systems needed to monitor and evaluate their effects. We hold the view, however, that in the long run, it may be more productive to invest in establishing information systems that can serve multiple purposes, rather than to think of the evaluation of professional development programs as an entirely separate enterprise requiring entirely new data collection efforts.

Comparing Costs and Benefits

Superintendents are increasingly asked to provide informa-

tion not only about the benefits of particular programs, but on the costs incurred in producing these benefits. Researchers and practitioners alike are focusing more and more on the costs of staff development programs. For example, the basic costs of implementing the Changing Teacher Practice Program (developed at the University of Texas) in the San Diego School District have been reported (Leighty and Courter 1984). Runkel and his colleagues have provided estimates of the costs of developing and operating local cadres of organizational specialists in schools (Runkel and others 1980). The Valley Education Consortium, for its part, is developing procedures both for calculating the costs of implementing and maintaining goal-based instructional programs, including costs related to inservice training, and for comparing costs occurred against benefits gained.

Although there is much to be learned about ways of determining costs and relating them to benefits, costs such as payments for substitute teachers who must be hired to allow teachers to participate in inservice activities and payments for consultants, trainers, and inservice materials often can be calculated without great difficulty. We suggest that, to the extent feasible, a record of the costs of a staff development program be maintained and examined in view of evidence on the benefits of the program.

Conclusion

In this chapter we have discussed the contributions that superintendents and central office personnel can make in fostering effective professional development programs. Unlike much of the effective schools literature that focuses only on what individual principals do to promote professional development in their schools, this booklet suggests that the superintendent and other district administrators perform a variety of essential functions to foster successful staff development, from setting priorities for inservice activities to assessing their costs and benefits. Superintendents and members of the central office staff provide crucial guidance and support in organizing and carrying out professional development programs.

Chapter 7

Guidelines for Principals

In the last chapter we suggested the kind of direction, resources, and assistance we believe central office personnel need to provide building administrators and staff in organizing and implementing professional development programs in their schools. We noted that district administrators need to work closely with principals in tailoring designs for professional development to match particular school settings.

In this chapter we focus on professional development at the building level, keeping in mind that what happens at this level is greatly influenced by priorities and policies established by the superintendent's office. More specifically, we identify the roles that effective principals can carry out to ensure the success of staff development programs.

We draw heavily in this chapter on our work with principals in the Valley Education Consortium, our participation in the Gall and others study reported in chapter 3 on principal involvement in teachers' inservice programs, Little's (1984) research on the way principals and faculty work together to successfully implement mastery learning, and findings from the Study of Dissemination Efforts Supporting School Improvement (Crandall 1983, Huberman and Miles 1984).

From our perspective principals generally need to carry out six functions to foster the effectiveness of professional development programs:

1. Set clear expectations for both teacher involvement and their own involvement
2. Utilize effectively the talents of lead teachers
3. Establish collaborative structures to foster teachers' professional interaction
4. Differentiate between supervision intended to (a) fulfill administrative requirements, (b) promote individual growth, and (c) support program implementation or improvement
5. Guard against premature evaluations of professional development programs

6. Regularly exchange ideas with other principals in the district or area who are involved with similar programs

Setting Clear Expectations for Involvement

Principals must make clear to teachers whether participation in a professional development program is to be voluntary or required and the degree of freedom teachers have in modifying or rejecting particular innovations. Both type of participation and implementation requirements depend on conditions.

Whether voluntary or compulsory participation is most appropriate in an inservice program depends on the purpose and focus of the activity. Voluntary participation appears most appropriate when an inservice activity is intended to foster individuals' personal growth, an example of a program serving this purpose is a seminar on stress management or on recent advances in brain research and its implications for schooling. Voluntary participation also seems most appropriate if an inservice activity focuses on new and untested ideas or procedures that might not prove worthy of full-scale implementation. Finally, voluntary participation is warranted in the early stages of implementing even a proven innovation if the goal is to train a small group of enthusiastic teachers who will later be expected to train other teachers in the use of the innovation.

There appear to be conditions, however, under which compulsory participation in professional development programs seems most appropriate. It appears quite defensible, for example, to require teachers to participate in training sessions that deal with high-quality innovations supported by a strong research base. The case study reported in chapter 4 on the University of Oregon Follow Through Model, for example, indicated that many teachers came to appreciate Direct Instruction only after approximately two years' experience in implementing it. Had participation in Follow Through training sessions been voluntary, probably very few teachers would have attended. Crandall (1983) concluded from an extensive study of school improvement processes that teacher commitment to an innovation typically develops *after* implementation, once teachers are actively using the practice and see benefits from it. Little (1984) also has suggested possible problems in permitting teachers to participate in inservice programs purely voluntarily. She noted that "a teacher left to rely on individual preference and skill may reason-

ably choose to avoid a new practice rather than take the chance that a substantial investment of time and thought will not pan out."

It also seems appropriate sometimes to require teachers to participate in faculty committees or task forces that identify and investigate problems in programs or in the school generally and to propose solutions. In such cases, the goal of participation is not to receive training and support in implementing a particular innovation, but to work with colleagues and administrators in assessing needs, setting priorities for improvement, and shaping plans for action.

Much of what has just been written about participation requirements applies to the issue of teachers' discretion in modifying ideas and procedures introduced in training. Teachers may be required to attend inservice sessions on the use of a particular innovation but may not be required to implement the innovation according to the specifications or expectations of the innovation's developers.

Teachers probably need to be granted wide latitude in adapting practices that are new and relatively untested or practices that are broadly defined and are intended to be modified according to an individual's personal philosophy and style.

Innovations that are tightly defined and of proven effectiveness, however, generally need to be implemented fully and systematically if their effectiveness is to be maintained. This is not to suggest that any innovation can or should be made "teacher proof," but only that large departures from the intended use patterns of an innovation may reduce its benefits. Crandall (1983) has observed, for example, that at times teachers have convinced administrators to modify a new practice so much that the practice loses its effectiveness. Thus, "harmony is preserved, improvement is stymied."

Finally, we believe that it is important for principals to make clear how and how much they plan to be involved in inservice activities. We provided evidence in chapter 3 that principal involvement in both the training and implementation phase of an inservice program can have positive benefits for both teachers and students. Little's (1984) research on implementing mastery learning also shows how important it is for principals and teachers to struggle together in learning how to apply and extend new ideas in schools and classrooms. Principals need to communicate to staff how they plan on participating in and supporting professional development programs.

Utilizing the Talents of Lead Teachers

Effective principals capitalize on the strengths of staff members when organizing and implementing staff development programs. They recognize that principals alone cannot carry out all the functions necessary to ensure the success of a program. In addition to using resources and services from the central office, they are apt to rely heavily on a "lead" or "master" teacher within the building to assist in planning inservice activity, providing training, support, and technical assistance, and informally monitoring the progress of an improvement effort (Hord, Stiegelbauer, and Hall 1984). Principals also may use the services of lead teachers within a district at large or from neighboring schools, as was described in the section in chapter 4 on the Valley Education Consortium's work in school improvement.

Principals of course must take care not to delegate so much responsibility to lead teachers that they effectively become assistant principals or members of the administration. Lead teachers function best as facilitators, not policy makers or supervisors.

Principals need to establish a clear framework within which lead teachers are to operate. They also need to ensure that lead teachers receive special training and support to prepare them for their roles, particularly if they are called upon to foster fundamental changes in classrooms or the school as a whole. The need for special training was amply documented in Showers' studies of peer coaching. It also is reflected in the efforts that have been made to train teachers in the role of OD trainer and facilitator, and in the design and operation of the Valley Education Consortium's program implementation and improvement teams.

Establishing Collaborative Structures

It is commonly observed that teachers work in relative isolation from each other and know little about what their colleagues believe or do. This professional isolation needs to be reduced to achieve the goals of most professional development programs. As Little (1984) has observed, collaboration among staff in implementing new practices is essential for several reasons. First, it may reduce the fear of risk taking. It is less frightening to try a new idea and risk failure when one's peers are also taking the risk. An implementation team may offer moral support to its members and show tolerance for error. Second, understanding and implementing

complex innovations typically require a great deal of thought and preparation. Teachers' ideas and plans invariably are enhanced when they have the opportunity for group discussion, shared work in preparing materials, and collective problem-solving around implementation issues. Finally, some innovations are not effective unless implemented on a large enough scale to alter the entire pattern of teaching and learning in a building. Put differently, by their very nature, inservice programs designed to make changes at the program or organizational level require teachers to work together toward common or complementary goals.

Collaborative structures can take a variety of forms. These include the kind of informal teams of peer observers described by Glatthorn (1984), the weekly inservice and curriculum planning sessions observed by Little (1984), the monthly meetings of lead teachers in the Valley Education Consortium, and the quarterly cadre meetings held in the Keele district. In one form or another, collaborative structures are necessary to support large-scale changes in teaching and schooling.

Differentiating among Types of Supervision

McGreal (1983) has pointed out that the most common form of supervision that building administrators carry out is a periodic check on classrooms to make sure that teachers are meeting basic criteria for satisfactory job performance. In this form of supervision, building administrators typically observe teachers once or twice a year to see whether they are following the curriculum adapted by a district, maintaining an orderly classroom environment, gearing lessons to the students' general ability level and backgrounds, and treating students with respect. This "quick and easy" kind of supervision serves general administrative purposes and helps to identify teachers who are clearly incompetent or irresponsible.

Supervision for administrative purposes, however, needs to be sharply distinguished from supervision intended to foster continued professional development. McGreal has described four models of teacher evaluation that can be used to foster professional growth:

1. *goal-setting*, in which a teacher and a supervisor agree on a set of goals the teacher will work toward during the year, and the supervisor assists the teacher in monitoring progress toward these goals
2. *product* models, in which evidence on student learning is

used to assess teacher effectiveness, and a supervisor works with a teacher in areas where student learning is weak

3. *clinical supervision*, in which a supervisor observes a teacher's performance according to procedures agreed to in a preobservation conference and provides objective, nonevaluative feedback that the teacher can use as a basis for improvement
4. *artistic* or *naturalistic* models, in which teaching is viewed as an art and supervision focuses on such qualities as the grace, unity, and meaningfulness of a lesson

If a district requires principals to use some variation of one or more of these models, principals obviously need to make clear to staff the rationale for the model and the way in which it differs from administrative monitoring of basic indicators of professional competence. If a district has no policy on the use of a growth-oriented evaluation model, a principal might consider selecting and using one on an experimental basis.

Principals also need to be clear about specific supervisory procedures they intend to use to foster the implementation or improvement of particular programs. A general supervisory model, such as goal-setting or artistic or naturalistic supervision, might be useful in fostering personal professional growth, but it might not assist in helping teachers use a new program or implement an existing program more effectively. The relationship between supervision for personal professional growth and supervision for program implementation or effectiveness needs to be made explicit.

Guarding against Premature Evaluation of Programs

Earlier in this chapter we cited evidence that commitment to a new model, practice, or program typically develops gradually over an extended period. Teachers generally need time to try out, struggle with, and understand new ideas and practices and to assess their potential benefits to students. Innovations that may initially appear burdensome or strange may in the long run be perceived as manageable and effective. Judgments about the costs and benefits of a professional development program should not be made before it has had a chance to prove itself.

We do recognize, however, that the admonition to defer judg-

ment of a program until it has been fully implemented does not apply to innovations that lack a firm conceptual foundation or a strong research base. Obviously not all innovations deserve to be implemented Our comments about long-term evaluation thus refer only to innovations of known effectiveness. If an innovation of dubious merit is implemented and found to be ineffective, it probably is better to terminate its use as soon as feasible.

Exchanging Ideas with Colleagues

Just as professional collaboration is essential for teachers, so it appears vital for principals. When principals meet as a group to discuss their role in guiding and supporting inservice programs, as they did, for example, in the Gall and others study of the principal's involvement in the inservice program described in chapter 3, positive benefits can be obtained. These include an increased sensitivity to the potential of the program for fostering change and increased confidence in their own ability to facilitate this change.

While there is little formal research on collaborative support structures for principals, some steps have been taken to establish such structures. Roland Barth (1984) and his colleagues have organized a Principals' Center in Boston, Massachusetts, for example, and have helped to establish similar centers elsewhere. These centers appear to provide needed opportunities for the exchange of ideas and collective problem-solving. In other school districts principals have developed informal collaboration structures.

In the long run, the superintendent of a district probably needs to provide the time and resources that permit principals to meet together on a regular basis and systematically review issues they are encountering in implementing inservice programs.

Conclusion

In this chapter we have drawn upon a variety of studies and other activities that demonstrate the critical role principals play in promoting teachers' professional development. We have suggested that principals need to make two things clear. their expectations for teachers' involvement in inservice programs and the kind of program-related support and supervision they intend to provide. We also noted the benefits of principals building partnerships with lead teachers to facilitate inservice training and implementation of

desired changes. Also discussed was the importance of collaborative support structures both for teachers and principals and the need for principals to clarify relationships between various forms and purposes of teacher supervision. We conclude that the effectiveness of staff development programs will hinge to a considerable extent on the guidance and support furnished by the building principal.

Chapter 8

Challenges Ahead

The research reviewed in this booklet is encouraging because it suggests how much has been learned about professional development during the past ten years. We find it encouraging that the research has been broad in scope, dealing not only with ways of improving teachers' instructional skills, but with building a staff's capacity to implement and operate new programs and to respond constructively to organizational problems. We also find it encouraging that research has shed light on the leadership and support functions that district and building administrators need to provide if effective inservice programs are to be carried out. There clearly is a wide knowledge base school administrators can draw upon when designing and managing staff development programs.

Although encouraged by the knowledge that has been produced, we also are aware of many questions that remain unanswered. One of the largest questions, in our view, concerns the way professional development programs serving different purposes can best be related to each other. There is an understandable tendency on the part of researchers to focus on one type of inservice program at a time, such as a peer coaching program, or a training program in organizational development. But school districts, particularly large ones, often need simultaneously to accomplish a variety of tasks that require staff development. Guidelines for sequencing and orchestrating multiple professional development programs are difficult to find or derive, however, since this topic has seldom been investigated.

We also suggest that more attention needs to be paid to the culture of a school when designing and implementing professional development programs. The literature on school reform cautions that life in schools is governed to a large extent by informal norms and implicit beliefs that respond more to social and psychological needs than to rational considerations (Deal 1984, Lieberman and Miller 1984). Shared beliefs about the "right way" to teach, the "proper role" for students, and the purposes of education, for example, represent important aspects of a school's culture that must be considered by those who attempt to introduce and implement instructional innovations.

Only a small amount of research has been done, however, on strategies for fostering change in a school's culture to support and sustain instructional improvement. Some studies (Gersten and Guskey 1985) suggest that changes in a staff's beliefs about teaching and learning are brought about through successful experience in using a new practice or program that challenges established norms. Discovering on a concrete and personal level that a different way of thinking about instruction produces benefits in the classroom or in the school generally is perhaps the surest inducement to a change in beliefs. Yet, we also have seen that teachers and administrators are understandably reluctant to experiment with innovations that are likely to unsettle routines and create uncertainty. We need to enlarge our understanding of strategies for accommodating a school's culture, while effecting change within it.

In addition to learning more about cultural change in schools, it seems important to investigate more fully the ways professional development programs need to vary to serve teachers and administrators at different levels of schooling and at different stages of teacher career development. Most of the research reviewed earlier dealt with inservice programs in elementary, middle, or junior high schools. Although researchers are increasingly turning attention to staff development issues in senior high schools (Boyer 1983; Duckworth and Fielding 1983, Fielding and Schalock 1985; Fitzpatrick 1985, Gall and Gersten 1983; Stallings 1980), the knowledge base for guiding staff development in high schools is weaker than for elementary schools. Similarly, though distinctions increasingly are made in the literature on staff development among "lead" or "master" teachers, experienced teachers, and first-year teachers, our knowledge about the professional development experiences most appropriate for these groups is nonetheless quite limited.

Finally we propose that greater effort should be made to learn from professional development programs in innovative industries. Schlechty and Joslin (1984) have written provocatively, for example, about the links between schools and modern industrial firms that are centrally concerned with the development and use of knowledge. New forms of management, supervision, and training that are emerging from knowledge industries may well have relevance for the design of professional development programs in schools.

It is an exciting time to be working in the area of professional development—not only because of our expanding knowledge base, but because of the importance of what is being learned and all that remains to be discovered.

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