Toward a Scale-Up Model for Replicating New Approaches to Schooling

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For school reform to succeed, promising prototypes must be replicated on a large scale. Unfortunately, relatively little work has been done to build conceptual models and develop specific interventions for addressing the processes and problems associated with widespread diffusion of reforms. With a view toward advancing the state of the art, we describe a "scale-up" model for replicating school reform prototypes. The model draws on a diverse body of literature related to organizational change and community psychology, as well as practices evolved as part of several restructuring efforts. Four overlapping phases and related guidelines for scale-up are conceived. The four phases are (a) *creating readiness* by enhancing a climate/culture for change; (b) *initial implementation*, whereby replication is carried out in stages using well-designed guidance and support mechanisms; (c) *institutionalization*, accomplished by ensuring there are mechanisms to maintain and enhance productive changes; and (d) *ongoing evolution* through use of mechanisms to improve quality and provide continuing support. The model presented has fundamental implications for educational and psychological professionals concerned with major school reforms and is meant to stimulate increased research attention on the problem of advancing knowledge regarding effective scale-up of reform prototypes.

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New approaches to schooling require prototype development and widespread diffusion (sometimes called replication, roll out, or scale-up). Available evidence suggests, however, that large-scale diffusion processes and problems usually are not systemically addressed. Discussions of programs for change often skip right by the topic (Lorion & Ross, 1992).

One prominent analysis outlines major deficiencies associated with efforts to replicate educational reforms and suggests the deficiencies reflect an inadequate knowledge base (Replication and Program Services, 1993). Although large-scale diffusion often is poorly implemented, it is a mistake to write off the existing base of relevant knowledge and expertise. Take, for instance, the fundamental diffusion concern about creating a climate for institutional change. A considerable amount of organizational change research and practice in schools, corporations, and community agencies supports the value of (a) a high level of policy commitment that is translated into appropriate resources (leadership, space, budget, time); (b) incentives for change, such as intrinsically valued outcomes, expectations for success, recognitions, and rewards; (c) procedural options from which those expected to implement change can select those they see as workable; (d) a willingness to establish mechanisms and processes that facilitate change efforts, such as a governance mechanism that adopts ways to improve organizational health; (e) use of change agents who are perceived as pragmatic, that is, maintaining ideals while embracing practical solutions; (f) accomplishing change in stages and with realistic timelines, (g) providing feedback on progress; and (h) institutionalizing support mechanisms to maintain and evolve changes and to generate periodic renewal.

Numerous other examples make it clear that replication efforts in school systems suffer not so much from a dearth of general knowledge but from the lack of investment in delineating and testing diffusion models. With a view toward advancing the state of the art, we outline a diffusion model for replicating new approaches to schooling. The model draws on a broad psychological and organizational literature (e.g., see Argyris, 1993; Barth, 1990; Brookover, 1981; Connor & Lake, 1988; Cunningham & Gresso, 1993; Donahoe, 1993; Elmore & Associates, 1990; Fullan & Stiegelbauer, 1991; Heller, 1990; Lewis, 1989; Lieberman & Miller, 1990; Miles & Louis, 1990; Murphy, 1991; Newbrough, 1995; Newmann, 1993; Peirson & Prilleltensky, 1994; Sarason, 1990, 1996; Schlechty, 1990; Schmuck & Runkel, 1985; Smith & O'Day, 1991; Waterman, 1987; Wehlage, Smith, & Lipman, 1992). The reader will see, for example, the influence of community psychology's concerns for systemic change that builds a psychological sense of community and empowers all stakeholders. To ensure the ideas were tempered through real-world application, the model was built in concert with our work in

planning and implementing school-based and districtwide systemic changes.

A WORKING FRAMEWORK

Widespread restructuring of schools involves substantive changes at multiple levels. For this to happen, a complex set of interventions is required. For this to happen effectively and efficiently, the interventions must be guided by sophisticated diffusion models.

A diffusion model is a tool for systemic change; it addresses the question "How do we get from here to there?" Whether focused on one or many settings, the diffusion process can be conceived in terms of four overlapping phases: (a) creating readiness by enhancing a climate and culture for change; (b) initial implementation, whereby replication is carried out in stages using well-designed guidance and support mechanisms; (c) institutionalization accomplished by ensuring there are mechanisms to maintain and enhance productive changes; and (d) ongoing evolution through use of mechanisms to improve quality and provide continuing support.

Diffusion models are built on complex rationales. Key facets are basic intervention principles and guidelines related to planning, implementation, and evaluation (Adelman & Taylor, 1994). Such principles are reflected in the following foundational assumptions used to guide model development; other principles are highlighted throughout the article.

• Any prototype for desired changes is based on a vision of organizational aims: A diffusion model is guided by this vision and is outcome oriented.

• To initiate and guide prototype replication, a diffusion mechanism is needed. One way to conceive such a mechanism is in terms of a diffusion project. Such a project provides a necessary organizational base and skilled personnel for disseminating a prototype, negotiating decisions about replication, and dispensing the expertise to facilitate diffusion. Underwriting for such a project may come from public and private sources concerned with fostering reform or from fees paid by a subscribing school district or a combination of these sources.

• A diffusion project can dispense expertise by sending out a diffusion team. Such a team consists of project staff who, for designated periods of time, travel to the replication site. A core team of perhaps two to four project staff works closely with site staff throughout the replication process. Each

core team member has specific responsibilities for the restructuring process. The team is augmented whenever a specialist is needed to assist with replicating a specific element, such as new curriculum, use of advanced technology, or restructuring of education support programs.

•Local ownership is established through solid policy commitments, well-designed structural mechanisms, allocation of adequate resources (finances, personnel, space, equipment, etc.) to operationalize the policy, and restructuring of time to ensure staff involvement in adapting the prototype to the setting.

•Diffusion of a comprehensive prototype almost always requires the phasing in of changes and the addition of temporary mechanisms to facilitate change.

•Throughout the process, a critical mass of stakeholders must consistently move in the direction of desired outcomes; therefore, programs must be designed to overcome barriers to working relationships and to mobilize and maintain proactive efforts.

•Institutionalized structural mechanisms must be (re)designed to ensure prototype maintenance and renewal.

•To facilitate program development and organizational change in the early phases of the process, the primary orientation for evaluation is formative, that is, especially focused on data gathering and analyses that can help improve procedures.

Highlighted in Figure 1 are specific tasks related to the four phases of diffusion. Permeating every task is the reality that planned diffusion is a formal intervention. As such, processes must reflect sound intervention fundamentals, with special attention to the "problem of the match" (sometimes called the "problem of fit"). The essence of all intervention is an effort to match an appropriate relation between the current system, such as an individual or organization, and the processes used to produce desired changes (cf. Adelman & Taylor, 1994). Complex interventions, of course, seldom are implemented in a completely planned and linear manner. The many practicalities and unforeseen and uncontrollable events that arise require a flexible, problem-solving approach. Articulation of a diffusion model can guide planning, but those facilitating the process must be prepared to capitalize on every opportunity that can move the process ahead.
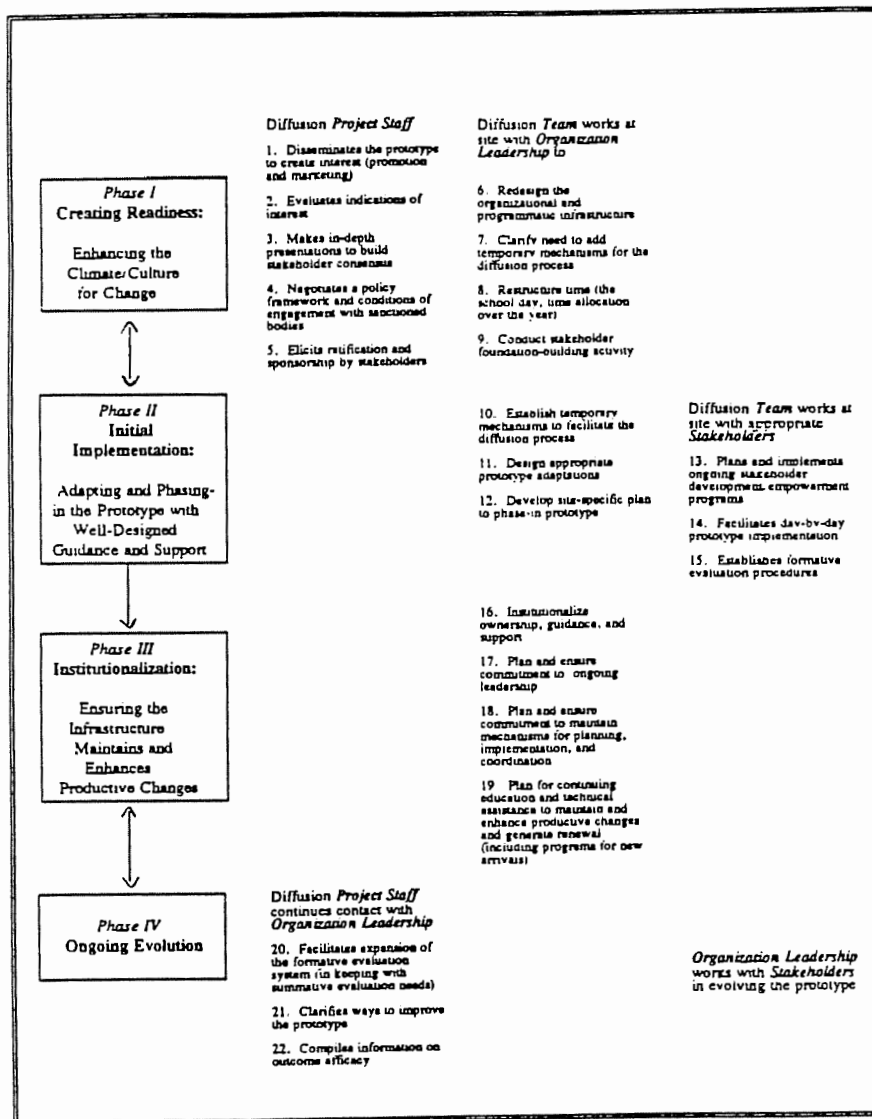
Phase I
Creating Readiness:

Enhancing the
Climate/Culture
for Change

Phase II
Initial
Implementation:

Adapting and Phasing-
in the Prototype with
Well-Designed
Guidance and Support

Phase III
Institutionalization:

Ensuring the
Infrastructure
Maintains and
Enhances
Productive Changes

Phase IV
Ongoing Evolution

Diffusion *Project Staff*

1. Disseminates the prototype to create interest (promotion and marketing)

2. Evaluates indications of interest

3. Makes in-depth presentations to build stakeholder consensus

4. Negotiates a policy framework and conditions of engagement with sanctioned bodies

5. Elicits ratification and sponsorship by stakeholders

Diffusion *Team* works at site with *Organization Leadership* to

6. Redesign the organizational and programmatic infrastructure

7. Clarify need to add temporary mechanisms for the diffusion process

8. Restructure time (the school day, time allocation over the year)

9. Conduct stakeholder foundation-building activity

10. Establish temporary mechanisms to facilitate the diffusion process

11. Design appropriate prototype adaptations

12. Develop site-specific plan to phase-in prototype

Diffusion *Team* works at site with appropriate *Stakeholders*

13. Plans and implements ongoing stakeholder development empowerment programs

14. Facilitates day-by-day prototype implementation

15. Establishes formative evaluation procedures

16. Institutionalize ownership, guidance, and support

17. Plan and ensure commitment to ongoing leadership

18. Plan and ensure commitment to maintain mechanisms for planning, implementation, and coordination

19. Plan for continuing education and technical assistance to maintain and enhance productive changes and generate renewal (including programs for new arrivals)

Diffusion *Project Staff* continues contact with *Organization Leadership*

20. Facilitates expansion of the formative evaluation system (in keeping with summative evaluation needs)

21. Clarifies ways to improve the prototype

22. Compiles information on outcome efficacy

Organization Leadership works with *Stakeholders* in evolving the prototype

FIGURE 1   Diffusion process: phases and major tasks.

PHASE I—CREATING READINESS: ENHANCING THE CLIMATE FOR CHANGE

One somewhat naive approach to comprehensive change is simply to mandate program restructuring and impose accountability. Mandates

alone, however, often lead to change in form rather than in substance. In organizations, comprehensive cultural shifts evolve slowly in transaction with establishment of specific organizational and programmatic changes. Early efforts to alter an organization's culture emphasize creation of an official and psychological climate for change, including overcoming institutionalized resistance, negative attitudes, and other barriers to change. New attitudes must be engendered. New working relationships must be established. New skills must be learned and practiced. Negative reactions and dynamics related to change must be anticipated and addressed. And, as the excitement of newness wears off and the demands of change sap energy, the problems of maintaining vigor and direction arise and must be countered.

Creating readiness for new approaches to schooling involves tasks that produce fundamental changes in a school's culture. Substantive change is most likely when high levels of positive energy among stakeholders are mobilized and appropriately directed over extended periods. Thus, one of the first concerns of interveners responsible for program diffusion is how to mobilize and direct the energy of a critical mass of participants to ensure readiness and commitment. A sound approach to creating readiness proceeds in ways that establish and maintain an effective match with the motivation and capabilities of involved parties. Such an approach is built around understanding of the organization and its stakeholders, involves stakeholders in making substantive decisions and redesigning structural mechanisms, emphasizes personal relevance when identifying potential benefits of change, elicits genuine public statements of commitment, and uses processes that empower and create a sense of community. In this respect, it is worth noting Maton and Salem's (1995) discussion of the empowerment of settings. They stress the importance of (a) leadership that is inspiring, talented, shared, and committed to both setting and members; (b) a belief system that inspires growth, is strengths based and focused beyond the self; (c) an opportunity role structure that is pervasive, highly accessible, and multifunctional; and (d) a support system that is encompassing, peer based, and provides a sense of community.

The first tasks associated with creating readiness involve disseminating a prototype and building interest and consensus for change. Decisions follow about specific replication sites. Then, steps are taken to negotiate a policy framework and agreements for engagement. This is followed by activity to modify the institutional infrastructure (especially space, budget, personnel, and policy and administrative mechanisms) at chosen sites to ensure that prototype and replication requirements are met. To convey a sense of what is involved in accomplishing these tasks, we offer a brief discussion of three key topics: vision and leadership for change; policy

direction, support, and safeguards for risk taking; and mechanism redesign. The discussion incorporates our experiences with the Early Assistance for Student and Families project (funded by the U.S. Department of Education; see Adelman & Taylor, 1993a) and the Los Angeles Learning Centers' project (supported by the New American Schools Development Corporation; see Learning Center Model, 1995).

Leading the Way

The process of school change begins with a vision of a restructured school and an understanding of how to facilitate desired changes. One without the other is insufficient.

Dissemination to create interest.   Talking about new ideas rarely is a problem for educational and community leaders. Problems arise when they try to introduce new ideas into specific locales and settings. In effect, leaders have a triple burden as they attempt to change schools. The first is to ensure that substantive restructuring ideas are considered; the second is to build consensus for change; finally, they must pursue effective implementation—including specific strategies for financing, establishing, maintaining, and enhancing productive changes.

A thread running through all this is the need to stimulate increasing interest and general motivational readiness among a sufficient number of stakeholders. To clarify the point: In education, a new idea or practice almost always finds a receptive audience among a small group. Many more, however, are politely unresponsive and reluctant to change things, and some are actively resistant. Successful change at any level of education restructuring requires the committed involvement of a critical mass of policymakers, staff, and parents. Thus, an early task confronting leaders is that of enhancing motivational readiness for change among a significant proportion of those who are reluctant and resistant.

Enhancing interest in adopting new ideas involves an appreciation of promotional and marketing strategies. From this perspective, diffusion efforts are viewed as beginning with "market research." The point is to learn enough about the existing motivation and capabilities of potential adopters so that introductory presentations and beginning strategies are designed in ways that create an effective "match."

Examples of key objectives at this stage include (a) clarifying potential gains without creating unrealistic expectations, (b) delineating costs in a context that clarifies how benefits outweigh costs, (c) offering incentives

that mesh with intrinsic motives, and (d) conveying the degree to which the prototype can be adapted while emphasizing that certain facets are essential and nonnegotiable. In our work, we find that the complexity of these tasks requires a series of dissemination strategies. These include visits to see the prototype (if feasible), overview presentations spread over a period of weeks, in-depth focus groups and interactive analyses, and question-and-answer forums.

Evaluating indications of interest.   Given that many sites are interested and resources for facilitating change are limited, the next step involves decisions about where to begin. Criteria for making such decisions try to balance immediate concerns about the site's current level of readiness to proceed (including analyses of potential barriers) and the likelihood that the change process will be successful over the long run. For instance, in making initial judgments about the appropriateness of a potential site, we gather information about the following: How likely is it that a critical mass of decision makers will commit to allocating sufficient finances, personnel, time, and space? How likely is it that a critical mass of stakeholders will develop sufficient motivational readiness and appropriate levels of competence? With respect to the most influential stakeholders, will enough be supportive or at least sufficiently committed not to undermine the process? Do enough youngsters at a site fit the profile of students for whom the program model was designed? As these questions illustrate, most initial selection criteria reflect general considerations related to any diffusion process. More specific criteria emerge during the negotiation process.

Policy Direction, Support, and Protection for Restructuring

One reason so many programs come and go in schools is that new approaches often are introduced and funded as special projects. Activities are "added on" until funding ends, then dropped. Substantive and lasting reform requires a process that ensures informed commitment, ownership, and ongoing support on the part of policymakers. This involves strategies to create interest and formalize agreements about making fundamental changes. We find three steps essential: (a) building on introductory presentations to provide in-depth information and understanding as a basis for establishing consensus; (b) negotiation of a policy framework and a set of agreements for engagement, including a realistic budget; and (c) informed

and voluntary ratification of agreements by legitimate representatives of all major stakeholders.

In-depth interactive presentations to build consensus.   Substantive restructuring is unlikely without adoption of new policies at all relevant jurisdictional levels. Appreciation of this need arises from in-depth understanding of both the new approach and the processes involved in establishing, maintaining, and enhancing productive changes. In selling new ideas, it is tempting to accentuate their promising attributes and minimize complications. School policymakers frequently are asked simply for a go-ahead rather than for their informed commitment. Sometimes they assent to get extra resources; sometimes they agree because they want their constituents to feel they are doing something to improve schools.

In-depth understanding requires more than information that can be acquired from an initial overview presentation. Informed commitment and consensus building evolve from active exploration of fundamentals and specific practices. In our work at schools and districtwide, the core of the activity is a series of personalized sessions for small groups of stakeholders using an interactive format that builds on introductory presentations in ways that generate spiral learning. Such sessions spell out the nature and scope of new approaches, including the benefits and costs of using them and of the processes by which the prototype is installed. Sessions are tailored to address relevant differences among stakeholder groups through personal and media presentations, use of written and graphic materials, question-and-answer sessions, and focus groups.

Negotiating a policy framework and conditions for engagement.   For any prototype, there are principles, components, elements, and standards that define its essence and are nonnegotiable. This is the first condition for engagement. Similarly, there are matters related to diffusion that are fundamental and nonnegotiable, such as the need for certain temporary mechanisms to facilitate change. Once essentials are spelled out, all other prototype and diffusion considerations are negotiable. One of most perplexing facets to negotiate is the time frame. The more complex the prototype, the longer it takes and the costlier it is to implement and evaluate. Adopters usually want quick processes and results and, of course, rarely can afford costly innovations or lengthy diffusion activity. Compromises are inevitable in this situation but must be arrived at with great care not to undermine the substance of proposed changes.

Informed commitment is strengthened and operationalized through negotiating formal agreements at each jurisdictional level and among various stakeholders (see Figure 2). Policy statements articulate the commitment to the prototype's essence. Memoranda of understanding and contracts specify agreements about funding sources, resource appropriations, personnel functions, incentives and safeguards for risk taking, stakeholder
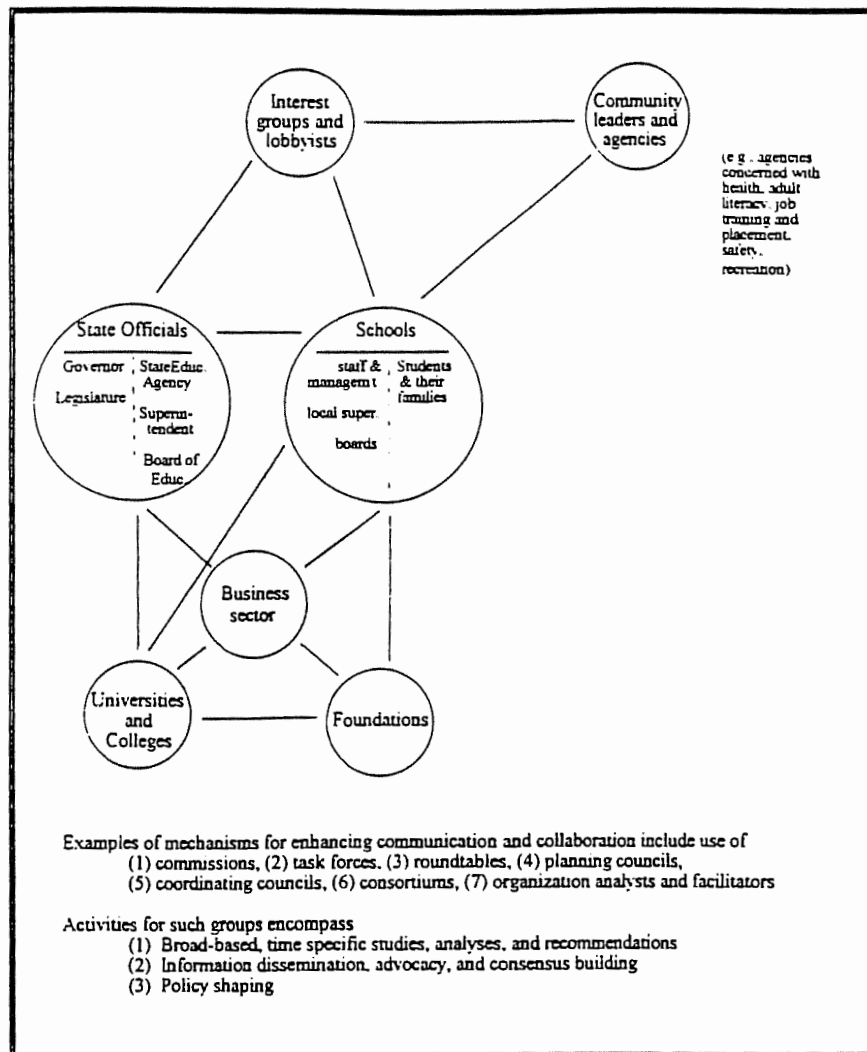

Examples of mechanisms for enhancing communication and collaboration include use of
(1) commissions, (2) task forces, (3) roundtables, (4) planning councils,
(5) coordinating councils, (6) consortiums, (7) organization analysts and facilitators

Activities for such groups encompass
(1) Broad-based, time specific studies, analyses, and recommendations
(2) Information dissemination, advocacy, and consensus building
(3) Policy shaping

FIGURE 2   Stakeholders in educational reform: needed lines of communication and collaboration.

development, immediate and long-term commitments and timelines, accountability procedures, and so forth.

Ratification and sponsorship by stakeholders.   The diffusion process is aided when the decision to adopt new approaches is ratified by sanctioned representatives of enfranchised stakeholder groups. Developing and negotiating policies, contracts, and other formal agreements is a complex business. We find that addressing the many logistics and legalities requires extensive involvement of a small number of authorized and well-informed stakeholder representatives. Thus, in pursuing these tasks, our commitment to include all stakeholders moves from a town hall approach to a representative democratic process.

At first, endorsement is in principle; over time, it is manifested through sustained support. When ratification reflects effective consensus building, diffusion efforts benefit from the broad base of informed commitment, ownership, and active sponsorship. These attributes are essential to ensuring requisite support and protections for those who must bear the burden of learning new ways and who risk dips in performance and productivity while doing so.

Although formulation of policy and related agreements takes considerable time and other resources, their importance cannot be overemphasized. Not taking the time more often than not results in major misunderstandings and poor results. Failure to establish and successfully maintain new approaches in the educational and social service arenas probably is attributable in great measure to the inadequate way in which these matters are addressed.

Redesigning Organizational and Programmatic Mechanisms

After agreements are ratified, a diffusion team begins its work (again see Figure 1). A central challenge at every jurisdictional level is the redesign of regular mechanisms and processes for making and implementing decisions. These modifications are to ensure stakeholder ownership, support, and participation as well as to address specific concerns associated with diffusion. (As discussed in a subsequent section, temporary mechanisms and processes also are created to guide and support diffusion activities.)

Mechanisms are only as good as the personnel who operate them. Wherever feasible, we start with the most motivated and capable stakehold-

ers. A constant problem is redeploying sufficient time so that new functions are learned and carried out effectively.

Modification of regular mechanisms.   Highlighted in the Appendix are areas in which schools have ongoing mechanisms that usually must be modified if major new approaches are to succeed. The five key areas are (a) governance, (b) planning and implementation associated with specific organizational and program objectives, (c) coordination and integration to ensure cohesive functioning, (d) daily leadership, and (e) communication and information management. A common example involves changing governance structures in keeping with initiatives to include parent and other community stakeholders as partners. This encompasses fundamental redistribution of power and raises the problem of how to empower additional groups without disempowering those who have essential responsibilities and abilities related to the educational enterprise.

In (re)forming mechanisms such as governance councils or planning teams, we bring together persons with necessary expertise, those interested in acquiring expertise, and individuals to facilitate process. Group size remains a constant problem because of the need to balance efficient and effective functioning with political representation for all stakeholder groups. The first team meetings are devoted to building stakeholder commitment and competence for collaboration, with special emphasis on task-focused meetings. We find that properly designed and developed teams accomplish a great deal through informal communication and short meetings. Besides accomplishing their main functions, broad-based and vertically structured groups can strengthen stakeholder collegiality by enhancing communication, understanding, commitment, and working relationships (Cunningham & Gresso, 1993; Newmann, 1993).

All mechanisms require constant care and feeding. Initial motivation often wanes in the absence of adequate resource support. In addition to ensuring adequate time, space, materials, and equipment, such care and feeding includes addressing personnel turnover quickly and providing opportunities to enhance competence and generate a sense of renewed mission.

Existence of multiple mechanisms gives rise to the need for a communication mechanism. To this end, we create a team of stakeholders to craft a proactive communication system. The team draws on a variety of media ranging from simple verbal or written messages to complex computerized presentations and networking. Examples include oral or written announcements, memos, newsletters, e-mail, bulletin boards, multimedia presentations, suggestion boxes, question-and-answer or focus groups,

and resource clearinghouses. Form depends on the message's purpose, source, and intended recipient.

Clarifying the need for temporary mechanisms. Successful diffusion requires establishment of a few temporary mechanisms, including external and internal change agents and a steering committee (discussed subsequently). Because these are irregular and involve costs, considerable attention is paid at this stage to clarifying why they are important and how they function.

Restructuring time. Time is one of the most critical elements determining the success of new approaches (National Education Commission on Time and Learning, 1994). Based on his frustrating experiences, Donahoe (1993) stated the case emphatically:

> We could buy time for the school staffs, but they had no space to install it. Organizational activities were crammed into every available corner of the day. It wasn't just a matter of finding time for meetings; there has to be time for all the additional interaction, assignments, and emotional energy that stitch an organization—a culture—together. ... The most radical and politically difficult element of school restructuring is what needs to be done with the use of time in schools so that teachers can expand their role. ... No matter how unthinkable radical change in the school day may be, the school simply cannot continue to function traditionally.

Even if a prototype doesn't call for restructuring the school day, the diffusion process does. Substantial blocks of time are needed for stakeholder development and for individual and collective planning. Thus, a nonnegotiable condition for engagement is an agreed-on approach that ensures essential time is available each week (e.g., 4 to 6 workday hr per week).

Restructuring time represents one of the most difficult diffusion problems. Examples of how the problem is addressed include establishing opportunities for students to spend time pursuing activities such as music, art, and sports with specialists or supervised by aides and community volunteers. Alternatively, school starts later or ends earlier on a given day. As these examples suggest, any approach is controversial, but if the problem is not addressed satisfactorily, successful replication of comprehensive new approaches is unlikely.

Stakeholder foundation building.   It is one thing to establish "partner-ships" with stakeholders such as parents, students, staff, and community agency representatives; it is another thing to create conditions that allow effective participation. One such condition involves translating staff development activity into comprehensive programs for stakeholder development. All stakeholders can benefit from efforts designed to increase levels of competence and enhance motivation for working together.

Stakeholder development is conceived as spanning four stages: orientation, foundation building, capacity building, and continuing education. Some aspects at each stage are for all stakeholders; other aspects are designed for designated groups and individuals. Initial orientation is accomplished through the in-depth interactive presentations for building consensus. Foundation building begins when structural mechanisms are redesigned. The objectives at this stage are to enhance prototype assimilation by all stakeholders and to increase their understanding of and ability to cope with the problems of organizational change. This strengthens and maintains a broad base of informed commitment, active sponsorship, and collaboration. Foundation building also strengthens the skills of those responsible for various structural mechanisms, including the administrative team, planning and implementation teams, lead personnel, and participating parents.

Because of "turnover" among stakeholders, strategies must be developed to provide new arrivals with appropriate orientation and foundation building experiences. (Goals for the capacity building and continuing education stages are outlined in a subsequent section.)

PHASE II—INITIAL IMPLEMENTATION

Initial implementation involves adapting and phasing in new approaches with well-designed guidance and support. The diffusion team works at the site with the organization's leadership to steer and phase in the prototype. The team also ensures stakeholders are provided guidance and support for change. Throughout this phase, formative evaluation procedures are established to provide feedback for program development. A brief discussion of each of these matters follows.

Steering the Prototype and Phasing in Change

If anything is certain about efforts to replicate new approaches to schooling, it is that the process is stressful. Coalitions must be developed, new working

relationships established, disruptive rumors and information overload countered, and interpersonal conflicts resolved. To minimize stress, temporary diffusion mechanisms are created and the prototype is adapted and introduced in phases.

Temporary mechanisms to facilitate the diffusion process.   These are created to facilitate diffusion and are assimilated into regular structural mechanisms at the end of the initial implementation phase. They include (a) a site-based steering mechanism to guide and support replication; (b) a change agent from the diffusion team who works with site stakeholders on a change team that facilitates coalition building, problem solving, and conflict resolution; and (c) mentors and coaches who model and teach elements of the prototype.

Steering. At each jurisdictional level, a steering mechanism—an individual, a small committee, or team—is needed to guide and support the replication process. And an interactive interface is needed between steering and organizational governance mechanisms.

Change agent and change team. During replication, tasks and concerns must be addressed expeditiously. To this end, a full-time agent for change plays a critical role. We use the change agent to help form and train an on-site change team. Such a team consists of personnel representing specific programs, administrators, union chapter chairs, and staff skilled in facilitating problem solving and mediating conflicts. This provides us with a blending of outside and internal agents for change who are responsible and able to address daily concerns.

With the change agent initially taking the lead, members of the change team are catalysts and managers of change. These functions call for a "big picture" understanding of the prototype, the diffusion process, and the local culture. They also require individuals who are committed each day to ensuring effective replication and who have the time and ability to attend to details. Team members help develop linkages among resources, facilitate redesign of regular structural mechanisms, and establish other temporary mechanisms. They also are problem solvers, not only responding as problems arise but also taking a proactive stance by designing strategies to counter anticipated barriers to change, such as negative reactions and dynamics, common factors interfering with working relationships, and system deficiencies. They do all this in ways that enhance empowerment, a sense of community, and general readiness and commitment to new approaches. After the initial implementation stage, they focus on ensuring that institutionalized mechanisms take on functions essential to the maintenance and renewal of new approaches.

Mentors and coaches. During initial implementation, the need for mentors and coaches is acute. There are many scheduled stakeholder development activities, including demonstrations of program elements. Diffusion team members are among the first providing mentorship. We augment them periodically with specially contracted professionals. To expand the pool, the diffusion team also identifies indigenous mentors, starting with those on site who have relevant expertise. Other stakeholders are recruited as volunteers to offer peer support. Ultimately, every stakeholder is a potential mentor or coach for somebody. A regularly accessible cadre of mentors and coaches is an indispensable resource for responding to stakeholders' daily calls for help.

Adapting and phasing in the prototype.   New approaches always are adapted to fit specific contexts, interests, needs, and changing times and conditions. In designing adaptations, discussions to arrive at mutual agreements among stakeholders, governance bodies, and steering groups help avoid violating policies and conditions for engagement.

With consensus to proceed, the steering group working in conjunction with specific planning groups formulates phase-in plans. This involves outlining an introductory sequence and strategies to facilitate implementation. Particular attention is given to the question of where to start and to delineating structures and resources for guidance and support. For instance, in our work on systemic restructuring to better address barriers to student learning, one of the first steps at a school site involves creating processes to map, analyze, coordinate, and redeploy existing resources. Special mechanisms such as an organization facilitator and a resource coordinating team are created to guide and support the activity (Adelman (199!6', Adelman, H. S., & Taylor, L. (in press).

Guidance and Support for Change

Well-designed organizational support and guidance enhance productivity, minimize problems, and accommodate individual differences. This encompasses extensive stakeholder development and personalized day-by-day facilitation. Intensive coaching with some follow-up consultation are key processes.

Stakeholder development.   Outlined in Table 1 are the major stages and goals of stakeholder development. As already noted, these are orientation, foundation building, capacity building, and continuing education. At each stage, activity is designed for all stakeholders as well as for designated

TABLE 1
Stages and Goals of Stakeholder Development

Stage	Provided For	Goal
Orientation	All stakeholders	Develop understanding of prototype and diffusion processes with a view toward building consensus and informed commitment
Foundation building	All stakeholders	Enhance assimilation of the prototype; increase understanding of and ability to cope with the problems of organizational change
	Governance body Planning groups Coordination team Others with daily leadership responsibilities Steering body Change agent and change team Mentors	Strengthen knowledge and skills for carrying out roles and functions related to specific mechanisms
Capacity building	All stakeholders	Evolve the organizational culture and develop attitudes and competence to support the evolving prototype and to work together
	Designated groups, teams, and individuals	Enhance their competence to plan, implement, and evaluate the prototype
Continuing education	All stakeholders	Maintain and enhance productive changes and generate renewal through
	Designated groups and individuals	facilitating additional capacity building, networking, social support, and personal enrichment

Note. Examples of stakeholder groups are administrators, teachers, education support program professionals, classified staff, aides, students, parents, and various community entities. Note that even activities designed for all stakeholders often are provided separately to specific groups in order to personalize content and experiences. Also, stakeholder development programs are needed for the constant influx of newcomers.

groups, teams, and individuals. Of course, even activities for all stakeholders often require separate implementation to personalize content and experiences.

As outlined in our brief discussion of Phase I stakeholder development, foundation building and capacity building opportunities are meant to enhance current and anticipated participation of parents, students, staff, representatives of community leadership and agencies, and volunteers. The focus is on effective decision making, planning, implementation, men-

toring, and evaluation. As noted, an early need is to strengthen the skills of those on leadership councils, administrative teams, planning and implementation teams, and change teams.

Mentorship and technical assistance are forms of personalized stakeholder development offered in response to the many specific requests that arise during the capacity building and continuing education stages. Continuing education provides a critical vehicle for enhancing productive changes, generating renewal, and countering burnout. Continuing education builds capacity and can foster networking and other forms of task-related, social, and personal support as well as provide a wide range of enrichment opportunities. Throughout each stage, technology is an important tool as well as a major focus of what is learned. As new stakeholders arrive, technology is particularly useful in helping them "catch up."

Facilitating day-by-day stakeholder performance and prototype implementation.   If the steps discussed to this point are done well, a sound foundation for initial implementation should be in place. This initial phase-in period can, however, consume considerable effort, create special problems, and may yield a temporary drop in some performance indicators. Good day-by-day facilitation aims at minimizing such negative outcomes by mobilizing and maintaining stakeholder motivation for change and addressing barriers to productive working relationships.

Motivation for change. Comprehensive change usually is achieved only when (a) fairly high levels of positive energy are mobilized over extended periods of time among a critical mass of stakeholders, (b) sustained energy is appropriately directed, and (c) individuals are not pushed beyond their capabilities. The construct of personalization offers a concept around which to organize thinking about these matters (Adelman & Taylor, 1993b, 1994). The concept is defined psychologically to underscore the importance of each stakeholder's perception in determining motivation. From an intervention perspective, the emphasis is not only on matching current developmental capabilities but also on the significance of matching levels of motivation and especially attending to intrinsic motivation. That is, personalization calls for systematically planning and implementing processes focused not only on knowledge and skills but also on attitudes. In particular, when the intent is to create an "environment" that mobilizes ongoing stakeholder involvement, a primary and constant focus is on fostering positive attitudes. Indeed, one of the first concerns of the diffusion process is fostering the type of motivational readiness and commitment that appropriately mobilizes and directs the energy of stakeholders.

Mobilization probably is best facilitated when outcomes are perceived by individuals as desirable and attainable through appropriate effort, and procedures are perceived as good ways to reach desired ends. Even if a task isn't enjoyable, expectation that the outcome will be a source of satisfaction can be a powerful intrinsic motivator. Task persistence is facilitated, for example, by expectations that participation will yield feelings of competence, self-determination, or connectedness with others. From this perspective, some of the most basic facilitation strategies involve ensuring that individuals have valued opportunities and options, a meaningful role in decision making, feedback that emphasizes progress toward desired outcomes, and positive working relationships (Adelman & Taylor, 1993a, 1994; Deci & Ryan, 1985).

Because low and negative motivation are related to resistance to change and poor functioning, matching motivation is a first-order facilitation consideration. Approximating a good motivational fit, of course, also requires matching capabilities, such as starting with fewer elements at sites at which resources are limited and accounting for variability in stakeholders' competence.

Barriers to working relationships. In our efforts to facilitate systemic changes, we always encounter some individuals who do not want change. Those who value the current state of affairs and others who do not see the value of proposed changes are apathetic and reluctant and often actively resistant. The same is true for people who expect that change will undermine their status or require new abilities. Among those who start out with a positive disposition toward change, positive motivation often subsides as the diffusion process proceeds. Attitudes may even turn negative if hopes and positive expectations are frustrated or because individuals conclude they are unable to perform as expected. We find there is a greater chance of this happening when unrealistic expectations are engendered and not corrected. Individuals who are not highly motivated do not perform as well as they might. This is even truer for individuals with negative attitudes. The latter are frequent faultfinders and prime candidates for creating and exacerbating interpersonal conflicts.

Interpersonal conflicts are the bane of efforts to establish effective working relationships. During periods of organizational change, they contribute to individual resistance and apathy; a host of resentments, including "us versus them" dynamics; and the constant flow of rumors that overemphasize the negative and underestimate the positive. Such problems seriously impede effective replication. Thus, building and maintaining working relationships are among the most basic concerns confronting those with responsibility for diffusion.

Because working relationship problems are associated with specific individuals, it is tempting to make attributions solely to personal disposi- tions such as an individual's negative attitudes, lack of ability, and person- ality deficiencies. Such attributions ignore the possibility that some of the problems (or at least their roots) were present in the organization prior to plans for restructuring. The politics and psychology that surround organ- izational change may simply magnify troubling matters or generate new stimuli that become targets for discontent. Other problems are a direct product of the activities and relationships that the diffusion process engen- ders. Whichever is the case, it is clear that a variety of human, community, and institutional differences characterize any organization, and organiza- tional settings foster an extensive range of interpersonal dynamics. Some of these differences and dynamics motivate patterns of poor communica- tion, avoidance, and conflict. All of these contribute to collaborative failure and burnout.

Each day at school sites we see a host of differences that are responded to by individuals or groups in ways that generate conflict. Any difference is up for grabs, including variations in sociocultural and economic back- ground, current lifestyle, primary language spoken, skin color, gender, power, status, intervention orientation, and so forth. Often, students, par- ents, teachers, or administrators are motivated to act in this way because of previous unfair treatment such as being discriminated against or deprived of opportunity and status at school, on the job, and in society. Such indi- viduals promote conflict to strike back, to seek redress in hopes of correcting long-standing power imbalances, or to call attention to other problems.

In addition to the negative dynamics generated by overplaying differ- ences, a multitude of other negative dynamics creep in over time as people work together. Common interfering dynamics we deal with regularly include excessive dependency and approval seeking, competition, stereo- typical thinking and judgmental bias, transference and countertransfer- ence, rescue–persecution cycles, resistance, reluctance, and psychological withdrawal.

During periods of change, another frequent and difficult-to-deal-with source of interfering dynamics are shifts in power. Theoreticians distin- guish "power over" from "power to" and "power from." *Power over* in- volves explicit or implicit dominance over others and events; *power to* is seen as increased opportunities to act; *power from* implies ability to resist the power of others (see Hollander & Offermann, 1990; Riger, 1993). Riger notes:

> The concept of empowerment is sometimes used in a way that confounds a
> sense of efficacy or esteem (part of "power to") with that of actual decision-

making control over resources ("power over"). Many intervention efforts aimed at empowerment increase people's power to act, for example, by enhancing self-esteem, but do little to affect their power over resources and policies. (p. 282)

Efforts to restructure schools often are designed to extend the idea of "power to," by empowering all stakeholders. Unfortunately, the complexities of empowerment, as reflected in the these distinctions as well as others related to its political and psychological facets, are not well addressed. As practiced, empowerment of some often disempowers others. Politically, enfranchising a new group of stakeholders usually reduces some other group's power base. Psychologically, empowering some persons can result in others feeling disempowered (and thus feeling threatened and pushed or left out). Riger (1993) cautioned:

If empowerment of the disenfranchised is the primary value, then what is to hold together societies made up of different groups? Competition among groups for dominance and control without the simultaneous acknowledgment of common interests can lead to a conflict like we see today in the former Yugoslavia. ... Does empowerment of disenfranchised people and groups simultaneously bring about a greater sense of community and strengthen the ties that hold our society together, or does it promote certain individuals or groups at the expense of others, increasing competitiveness and lack of cohesion? (p. 290)

Problems related to shifts in power take a variety of forms. As changes are introduced, some staff members inevitably feel disempowered because the control or influence they have accrued over activities and information through an official position or personal status is reduced. Others feel disempowered if their status as an "insider" with direct connections to key decision makers is jeopardized. Ironically, individuals who express honest concerns or doubts about how power is redistributed often are written off as resistant. And in many cases, the acquisition of power precedes the ability to use it effectively and wisely.

One of the main functions of a site change team is to develop direct lines of communication with all involved to facilitate productive working relationships and to identify and deal with problems quickly. In addressing these concerns, the primary focus is on guiding and supporting good working relationships. This is done by ensuring an appropriate structure of organizational and programmatic mechanisms and a positive working climate. Proactively, this involves mechanisms for creating an atmosphere in which defensiveness is curtailed and positive rapport is engendered. In particular, mechanisms are needed for continuous stakeholder develop-

ment and problem prevention using processes that foster interpersonal connections and a sense of community. Reactively, the emphasis is on mechanisms and processes for problem solving, resolving conflict, and providing ongoing support to rebuild relationships. Through enactment of new policies and waivers of existing policies, decision makers can encourage critiques oriented to problem solving, safeguards to protect those making the effort to change, expressions of appreciation for effort, and celebrations of progress.

A well-functioning set of mechanisms can prevent many problems and respond effectively to those that do arise. With this in mind, our first efforts usually focus on ensuring that the institutionalized and temporary structural mechanisms are appropriately designed and functioning. The work of the change team and those who implement stakeholder development is essential in this regard. Each mechanism has a role in building positive working relationships and in anticipating, identifying, and responding to problems quickly. People staffing mechanisms learn to perform specific functions related to these concerns; members of the change team monitor how well mechanisms are functioning and take steps to address deficiencies. Special attention is paid to ensuring that problem-solving mechanisms and communication processes are in place and are staffed with enough properly trained individuals and that stakeholders are appropriately informed about how to use the procedures.

The time to begin minimizing problems stemming from power shifts is during the readiness phase of the diffusion process. Ways to ease the transition are designed; those newly assuming power are engaged in activity to enhance their ability to use it appropriately. Ultimately, however, success in countering negative reactions to shifts in power seems to depend on whether the changes help or interfere with building a sense of interdependence and relatedness. Thus, in fostering a positive working climate, we focus on developing a commitment among a critical mass of stakeholders with respect to creating and maintaining a psychological sense of community. In this context, we stress six basic guidelines for working together: (a) minimizing negative prejudgments about those with whom one works, (b) taking time to make connections, (c) identifying what will be gained from the collaboration in terms of mutually desired outcomes to clarify the value of working together, (d) enhancing expectations that working relationships will be productive—important is establishing credibility with each other, (e) establishing a structure that provides support and guidance to aid task focus, and (f) providing periodic reminders of the positive outcomes that have resulted from working together. Basic to all this is helping them learn to interact in ways that convey genuine empathy and warmth (e.g., the ability to understand and appreciate what others are

thinking and feeling and to transmit a sense of liking) and genuine regard and respect (e.g., the ability to transmit real interest and to interact in a way that enables others to maintain a feeling of integrity and personal control). We also find it necessary to help many stakeholders work on talking with, not at, others (e.g., being a good listener, not being judgmental, not prying, sharing one's experiences as appropriate and needed).

In those instances in which it is necessary to target a specific problem and designated persons, we find rather simple strategies often are effective. For example, most motivated individuals can be directly taught ways to improve understanding and communication and avoid or resolve interpersonal conflicts. Sometimes, however, significant remedial action is necessary, as when overcoming barriers to a working relationship involves countering negative attitudes. Helpful in this regard are analyses that suggest the importance of establishing each participant's credibility (e.g., by maximizing task focus and positive outcomes) and clarifying the values gained from individuals working together (Sue & Zane, 1987).

Establishing Formative Evaluation Procedures

As suggested previously, effective efforts to "reinvent" schools require ensuring that stakeholders have the time to develop and institutionalize a sound prototype and that they are not penalized for unavoidable missteps. Thus, as a prototype is phased in, evaluation is used formatively to revise and fine-tune processes during each phase. Outcome efficacy is demonstrated over a period of several years once the prototype is in place.

Formative evaluation of diffusion efforts focuses on gathering and analyzing information relevant to development of a new approach, such as information on planning processes, governance structure, policies and resources, implementation strategies and barriers, program organization and staffing, and initial outcomes. Also of use are data on the characteristics of participating stakeholders, including who they are, what they want and need, and how they differ from those who do not participate. The information aids in judging the "fit" of prerequisite conditions and processes.

To be maximally useful, a data set allows for baseline and subgroup comparisons and includes multiple variables so that findings can be disaggregated during analysis. Of particular interest are data differentiating stakeholders in terms of demographics, initial levels of motivation and development, and type, severity, and pervasiveness of barriers. With respect to process, it is useful to have data differentiating stage of prototype development and differences in program quality. A well-designed information management system is a major aid.

Optimally, data should allow for formative-leading-to-summative evaluations. A formative evaluation system that over time yields summative findings facilitates ongoing planning in ways that improve processes and, thus, outcomes. At the same time, such a system can be used to validate the prototype and pursue specific research questions.

PHASE III—INSTITUTIONALIZING
NEW APPROACHES

Maintaining and enhancing changes is as difficult as making them in the first place. Even when prototypes are implemented, they often are not sustained over time. Institutionalizing new approaches entails ensuring that the organization assumes long-term ownership and that a blueprint exists for countering forces that erode progress. The aim is to sustain and enhance productive changes and generate renewal. Institutionalization, however, is more than a technical process. It requires assimilation of and ongoing adherence to the values inherent in the prototype's underlying rationale. Critical in all this are specific plans that guarantee ongoing and enhanced leadership and that delineate ways in which planning, implementation, coordination, and continuing education mechanisms are maintained.

Ownership, Guidance, and Support

Sustaining and evolving changes requires that an organization's governance body assumes ownership and program advocacy, including taking over the temporary steering group's functions, addressing ongoing policy and long-range planning concerns, and maintaining financial support. The foundation for such ownership is laid during the readiness phase. Each element becomes the organization's property as it is implemented. The official "deed" of ownership is transferred as soon as the prototype is in place.

Ownership is no guarantee of institutionalization. Various forces that erode new approaches always are at work. For instance, teams at a site experience turnover, problems with communication and sharing of resources are chronic, competing interests and the attractiveness of moving on to something new shift attention and resources to other activities.

To minimize problems, steps are taken to detect them and provide technical assistance for ongoing problem solving. This requires someone who has the time, energy, and expertise to meet periodically with stake-

holders to anticipate problems and marshal appropriate resources to sustain and evolve the prototype's integrity. Various organization leaders can be tapped to carry out these functions, and a diffusion project staff member who visits periodically also offers a possible mechanism for meeting these needs.

Ongoing Leadership

Whose responsibility is it to maintain and evolve the replicated prototype? Who values and advocates its continuation? As problems arise, who leads the way in resolving them? When new approaches are introduced, official leaders such as administrators, mentor staff, union chapter chairs, and elected parent representatives come to play key roles. Also, a variety of natural leaders usually emerges. (Obviously, the two types of leaders are not mutually exclusive.)

During the institutionalization phase, both official and natural leadership are essential to ensure a broad enough base for ongoing advocacy, problem solving, enhancement, and renewal. Official leaders provide a legitimate power base as various interests compete for the organization's limited resources, and they play a key role in ensuring that the contributions of natural leaders are recognized and rewarded.

Maintenance of Planning, Implementation, and Coordination Mechanisms

The functional integrity of mechanisms for planning, implementation, and coordination is maintained by ensuring the activity is an official part of the organizational structure, has appropriate leadership, and is effectively supported. A critical mass of team members keeps the workload manageable and ensures a broad base of involvement. Adequate resources keep teams performing effectively. In particular, teams need time to learn roles and perform functions and working conditions that generate reasonably interesting tasks, technical support for problem solving, recognition and rewards for contributions, immediate replacements when individuals leave, continuing education to enhance team functioning, and so forth. The key to maintaining essential mechanisms, of course, is to use processes that enhance the continuing motivation of those who operate them. Related to this is the use of processes for monitoring systems to detect signs of waning motivation and to take immediate steps to deal with the problem.

Continuing Education

At this point, there should be little doubt about the importance of continuing education and technical assistance in maintaining and enhancing productive changes and generating renewal. As noted, this requires activity designed to facilitate additional capacity building, networking, social support, and personal enrichment. And as with all stages of stakeholder development (again, see Table 1), transition programs are essential for new arrivals on the scene.

PHASE IV—ONGOING EVOLUTION AND RENEWAL

The ongoing evolution of organizations and programs is the product of efforts to account for accomplishments, deal with changing times and conditions, generate renewal, and incorporate new knowledge. Properly designed continuing education consolidates new approaches and fosters further change through exposure to new ideas. As the following discussion indicates, ongoing evolution and renewal also is fostered by evaluation designed to document accomplishments and improve quality.

Formative and Summative Evaluation

Increased concern about accountability has advanced the way evaluation is conceived (Posavac & Carey, 1989; Rossi & Freeman, 1989; Scriven, 1993; Sechrest & Figueredo, 1993; Shadish, Jr., Cook, & Leviton, 1991; Stufflebeam & Webster, 1983). At the same time, social and political forces literally shape the whole enterprise and in the process narrow the way professionals, clients, policymakers, underwriters, and the general public think about program evaluation. A prevailing cry is for specific evidence of efficacy—usually in terms of readily measured immediate benefits—and for cost containment. Although understandable in light of the unfilled promise of so many programs and the insatiable demands on limited public finances, such naive accountability mandates ignore the complexities of developing and diffusing new approaches. The problem is well exemplified by the narrow focus found in reviews, analyses, and reanalyses of data on early education (e.g., see Bond & Compas, 1989; Dryfoos, 1990; Mitchell, Seligson, & Marx, 1989; Schorr, 1988; Slavin, Karweit, & Madden, 1989). Overemphasis on evaluating the efficacy of underdeveloped prototypes draws resources away from formative evaluation. Cost-effective outcomes are not achievable in the absence of effective prototype development.

Premature efforts to carry out comprehensive summative evaluations clearly are not cost-effective.

Evaluation involves determining the worth or value of something (Stake, 1967). More formally defined, it is a systematic process designed to describe and judge an intervention's antecedents, transactions, and overall impact and value for purposes of making decisions and advancing knowledge. As Stake's (1967) framework suggests, evaluation encompasses the acts of describing and judging an intervention's (a) rationale, including assumptions and intentions; (b) standards for making judgments; (c) actual activity, including intended and unintended procedures and outcomes; and (d) costs—financial, negative effects, and so forth. To achieve these ends in a comprehensive manner, both immediate and long-term information is gathered. (See Rossi & Freeman, 1989; Scriven, 1993; Shadish, Jr., et al., 1991, on the problem of defining evaluation.)

Evaluation of new approaches involves more than determining efficacy for students. Broadly stated, it encompasses concerns about how to expand evaluation not only to contribute to improving practice but also to aid in evolving prototypes and policy (General Accounting Office, 1989). Essentially, the need is for formative evaluation designed in a way that leads naturally to evaluating outcomes. Moreover, replicating a restructuring prototype involves not only changing individuals but also changing organizations and systems. Thus, both individuals and systems are the focus of evaluation. With respect to effectiveness of efforts to replicate school restructuring prototypes, the immediate focus is on the successful replication of the prototype itself. Ultimately, of course, efficacy of schooling is a matter of student outcomes.

All this presumes existence of an appropriate mechanism to provide and analyze essential information. In this respect, a diffusion project's staff can help establish the foundation for evaluation by creating an evaluation team. A stakeholder development program can help prepare designated groups and individuals to evaluate with a view toward evolving the prototype.

Pursuing Outcome Efficacy

The process of evaluating outcome efficacy is costly in terms of financial investment, the negative psychological impact on those evaluated, and the ways it can inappropriately reshape new approaches. This, of course, is not an argument against evaluating outcomes. Rather, it is meant to underscore concerns to encourage greater attention to addressing them.

Once new approaches are established, an ongoing concern is to avoid developing outcome evaluation as an adversarial process. The psychology

of evaluation suggests that an overemphasis on accountability tends to produce negative reactions. That is, such an overemphasis stimulates psychological reactance, which often manifests itself in debilitating and counterproductive behavior. One way to minimize such reactions is to formulate the purposes of evaluation in terms of quality improvement and getting credit for all that is accomplished.

Because of increased interest in accountability, many complex aims are broken down into specific objectives. Indeed, short-range objectives stated in measurable terms generally assume a central role in planning. The benefits of measuring the attainment of intended outcomes are undeniable. This is not to say, however, that all intended outcomes are appropriately represented when stated and measured as short-range objectives. The ability to specify and readily measure short-term objectives is not the same thing as identifying what should be done. Short-range objectives are not ends in themselves; they are a small part of a particular goal and aim and sometimes are prerequisites for moving on to a goal. It is essential not to lose sight of the fact that many specific objectives are relatively small, unrepresentative, and often unimportant segments of the most valued aims society has for its citizens—and that citizens have for themselves.

Unfortunately, as accountability pressures increase, diffusion of prototypes may be guided more by evaluation needs than by long-range aims. That is, demands for immediate accountability can reshape practices so that the emphasis shifts to immediate and readily measured objectives and away from fundamental purposes. Over time, this can inappropriately lead to radical revision of the underlying rationale for new approaches.

With specific respect to diffusion, the first accomplishment is the replication itself: Is it effectively replicated? At how many locations? The next outcome concern is the degree to which the changes enhance student outcomes, such as attitudes toward school, health, attendance, behavior, and academic achievement. A final set of evaluation concerns is the degree to which student outcomes are further enhanced.

CONCLUDING COMMENTS

Those who set out to restructure education are confronted with two enormous tasks. The first is to develop prototypes; the second involves replication. One without the other is insufficient. That is, effective diffusion approaches are an essential facet of efforts to advance educational reform. Yet, considerably more attention is paid to developing and validating prototypes than to delineating and testing diffusion processes. Clearly, it is time to correct this deficiency.

The ideas presented in this article are meant to stimulate work on the problem of replicating new approaches to schooling. The general framework provides an overview of the diffusion process; the specific steps provide enough specifics to guide planning and implementation of institutional changes and evaluation of their relation to the ultimate efficacy of prototypes. To ensure that this model is directly applicable for efforts to make systemic change in schools and school districts, we are continuing to hone it in such arenas.

As we have stressed throughout this article, a sophisticated appreciation of replication models has major implications for professionals whose work calls for facilitating school change. In particular, the complexity of a diffusion process underscores a host of new functions that require knowledge and skills not currently part of the preservice preparation of such professionals. For example, tasks involved in creating readiness and initial implementation include promoting and marketing new approaches, negotiating conditions for engagement, facilitating development of change mechanisms, and facilitating redesign of an institution's basic structural mechanisms. Substantive diffusion efforts require guidance and support from professionals with mastery-level competence related to such tasks, including a highly developed understanding of the underlying processes that facilitate or hinder institutional change. Of particular importance is an understanding of strategies for enhancing a climate for change and an institutional culture in which all stakeholders continue to learn and evolve. Concepts espoused by community psychologists such as empowering settings and enhancing a sense of community are especially significant (Rappaport, 1995; Trickett, Watts, & Birman, 1995; Zimmerman, 1995). In this respect, the reader will have noted the consistency of our model and experiences with analyses of what it takes to empower settings (Maton & Salem, 1995) and with the ecological principles of interdependence, cycling of resources, adaptation, and succession (Kelly, 1987). Clearly, there is much to address in continuing education courses and in redesigning preservice preparation of all those who provide guidance and support for systemic change related to schools and schooling.

There are also implications for designing new positions. In our work, we have helped create a position called an organization facilitator to aid school districts involved in major restructuring. This specially trained change agent embodies the necessary expertise to help school sites and complexes implement and institutionalize substantively new approaches (Adelman & Taylor, 1993a, 1993b, 1994). Current efforts to fundamentally restructure education support programs and services in the Los Angeles Unified School District are pioneering use of such a facilitator. Work to date suggests one such professional can rotate within a group of 10 to 12 schools to phase in

rather complex structural changes at each site over a period of a year. Then, the facilitator can move on to another group of schools. After moving on, the facilitator returns periodically to assist with maintenance, share new ideas for advancing reforms, and contribute to related inservice. Over the next 3 to 5 years, plans call for a relatively small cadre of organization facilitators ($N = 27$) to phase in desired structural changes throughout a very large district. We are finding that pupil service personnel who are redeployed and trained for these positions adapt quite easily to the functions and report high levels of job satisfaction.

Given the complexity of institutionalizing school reform, it is unfair to those who labor for such reform if we do not end by placing the efforts in broad perspective. The quality of schooling, family life, and community functioning spirals up or down as a function of the quality of the ongoing transactions among each. Thus, education restructuring takes place within the context of a political agenda that addresses systemic ways to strengthen the family and community (e.g., strategies to enhance economic opportunity, adult literacy, and so forth). Major improvements in public education are unlikely to occur until there is the political will to pursue comprehensive, integrated approaches that weave together school and a variety of other reform initiatives.

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APPENDIX

Fundamental Facets of Ongoing Infrastructure Mechanisms

Governance.   Governance functions encompass power, policy, and economic concerns. In fostering new approaches to schooling, governing bodies ensure that there are appropriate incentives for change and mecha-

nisms and resources for carrying out plans. For instance, decisions are made about matters such as who to include in decision making regarding proposed changes and related budget considerations; what types of personnel, training, and other resources are required; and whether to experiment with demonstrations before attempting widespread change. In education, unilateral decision making by administrators is giving way to shared governance mechanisms such as elected leadership councils consisting of representatives of administration, classified staff, community leadership and agencies, parents, professional staff, students, and the unions. As restructuring moves toward formal integration of school and community resources, it seems evident that new models for governance at various jurisdictional levels will evolve to deal with the complexities of joint decision making, blended resources, and so forth.

Planning and implementation.   Mechanisms for planning and implementation are developed to accomplish specific organizational and program objectives. Tasks include adapting programs, planning ways to pace change, designing optional procedures for implementing activity, identifying appropriate resources, and so forth. For purposes of diffusion, we conceive such mechanisms in terms of broad-based teams and form them around the primary components of a prototype. The size of such teams is determined by factors such as workload, stakeholder representation, and interest. As needed, additional planning and implementation mechanisms are established with respect to specific elements of each major component. Because tasks related to such elements are less demanding, these mechanisms are staffed by an individual or a small work group of two to three persons.

Coordination and integration.   A coordination/integration team is designed to ensure cohesive functioning by countering piecemeal thinking and fragmented operations. The first emphasis is on coordinating existing activity and then ensuring continued coordination as additional elements are introduced. A subsequent focus on integration helps reduce redundancy.

Daily leadership.   A key area of concern is daily facilitation of individual and group efforts to implement planned activity related to instruction, addressing barriers to learning, and management. A cadre of leaders is needed to provide stakeholders at a site with high-quality support, includ-

ing mentorship, modeling, and creative problem solving. Some lead by taking on the role of a group leader; some are designated as lead personnel based on special expertise related to a particular program facet. Such persons usually also are members of governance, planning and implementation, and coordination/integration groups.

Communication and information management.   Effective communication and ready access to information are essential to organizational success. Clarity, immediacy, and responsiveness are critical for planning and implementation and for combating rumors and other counterproductive phenomena. Streamlined communication processes are especially important during a diffusion process because periods of organizational change require frequent sharing of information and tend to exacerbate miscommunication. Without well-designed processes for communicating and for updating and accessing information, major coordination, follow-through, and evaluation, problems arise. The range of activity encompassed by communication and information management makes it essential that all mechanisms are proactive in carrying out the tasks. That is, each has designated responsibilities for communication and information management. The whole endeavor can be woven together by a designated work group or under the auspices of the coordination and integration mechanism. In designing effective and efficient communication mechanisms, great care must be taken to protect privacy and confidentiality.

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