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ABSTRACT

Project Follow Through involved a diverse and major set of implementation problems: (1) The initial program mandate for an action program clashed with the later switch to an experimental focus; (2) The selection of curriculum rather than structural changes as the major intervention led to greater uncertainty regarding the practices to be installed; (3) Collaboration with local districts required compromises between local and federal priorities; and (4) The installation of new practices in specific schools and classrooms followed an unclear path. For the purpose of classifying this array of problems, the macro- and micro-implementation distinction appears inadequate as an analytical tool. A more elaborate framework seems necessary for understanding or monitoring an implementation process of the Follow Through type. A five-phase model of implementation, in which the emphasis is on variable sequences and emergent phenomena, seems advised. Such an implementation process would involve policy development, program development, project design, practice adoption, and practice implementation phases. Intensive inquiry into all five phases of this model must be conducted to fully analyze the implementation process. Further, at each phase, analytical concern must focus on four general criteria: sound management, fidelity to original intentions, elaboration of vaguely stated objectives into operational practices, and reduction of internal contradictions. While political or administrative realities may restrict changes in program implementation, monitoring should enable more accurate anticipation of likely program outcomes. (RH)

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Why Implementation is Important

A remarkable phenomenon can occur after a new program has been initiated. The program may operate well, but may not be much like the program that was originally designed; more frequently with federal programs in education, the program may not work at all, even though its design appeared unassailable. We now recognize that, among other things, the implementation process itself produces major effects, and that program outcomes may have to be explained as a function of both a) the substance of the program and, possibly more important, b) the way that the program was installed.

Understanding Implementation. The critical nature of the implementation process has only been recognized belatedly. One possible reason for this belated recognition is that implementation may only become critical when federal programs involve the creation of new services (as opposed to regulatory or financing initiatives) that involve intergovernmental collaboration (as opposed to defense or postal services that may be designed and implemented at the federal level alone). Because these types of program only burgeoned in the 1960s, so the argument goes, the importance of implementation effects were only realized after these programs began to operate. Whether the programs of the 1960s were the origin or not, implementation research

was largely nonexistent prior to 1973, when Pressman and Wildavsky (1973) reviewed the literature and found few earlier studies. In general, the implementation process has been underdocumented and poorly understood, although implementation research has increased during the last five years (Yin, 1980b).

This general commentary appears to apply directly to the Follow Through program.* Any analysis of the Follow Through implementation process appears to have been minimal, with little attention having been paid while the projects were being started or when they were evaluated. The evaluation data seem to have left such a large gap that:

> The results of several successive Follow Through evaluations have been reported, without a clear specification of program models, simply by associating outcomes with particular program labels. . . .policymakers and program administrators who want to make use of the results are left with no choice but to assume that each program model constitutes a "black box" whose contents are largely unspecified but whose effects are known to some degree. (Elmore, 1976)

In short, there is little documentation of what was implemented, in operational terms, at each site. Any future replication or modification of the Follow Through program will be most difficult without such knowledge.

Monitoring Implementation. In contrast, if one were to be concerned with the implementation process from the outset of a new program, at least four analytic activities must be conducted, both by program officials as a program is being installed

*The present paper is one of several intended to review the experiences with the Follow Through program and to suggest new approaches for the future design of the program.

and by evaluators as part of their assessment. In other words, implementation analysis should be considered an ongoing administrative activity, much as evaluation has become an integral part of agency operations (Williams, 1976).

First, the implementation process needs to be examined from the viewpoint of sound management: that implementation is proceeding efficiently, within predicted budget estimates, and on schedule. This viewpoint is not especially difficult to understand, and it is an important part of any implementation monitoring.

Second, implementation has to be monitored from a fidelity perspective. It may not always be the case that absolute fidelity between what was intended and what is installed is essential. Nevertheless, the analysis should deliberately monitor any deviations from the original design of the program, just to be sure that the operational objectives are well understood in terms of the programmatic outcomes that can be expected. In many cases, programs may change drastically, thereby negating the relevance of many outcomes first thought to be relevant. This has been observed with education as well as non-education programs.

Third, the monitoring should be sure that elaboration is occurring during the implementation process. At the federal level, the vagueness of initial program goals is a well-known phenonemon (Weiss and Rein, 19 ; and Farrar, 19). Legislators are likely to have declared some broad-aimed objectives that are simply not specific enough to prescribe the relevant programmatic activity. Elaboration or clarification must occur

before a program can be initiated, and this process must therefore be part of the implementation process.

Fourth, and possibly most difficult, implementation needs to be monitored from the standpoint of the reduction of self-contradictions. Programs cannot be successfully mounted if competing goals lead to contradictory actions. Although some political compromises must be made, one purpose of the implementation process is to sort out these contradictions, and to reduce them if possible.

These four analytic activities may be considered the criteria for monitoring and assessing the process of implementing a federal program that must ultimately be operated at a local level. The process is likely to occur smoothly (and in an acceptable fashion to central managers) to the extent that it: 1) follows sound management practice, 2) maintains some fidelity with original intentions, 3) elaborates vaguely stated objectives into operational practices, and 4) reduces internal contradictions.

Were There Implementation Problems in the Follow Through Program?

Any call for an increased understanding and monitoring of the implementation process should not merely be considered an item of academic curiosity. Reviews of the Follow Through program have suggested that numerous and genuine implementation problems were encountered. At a minimum, an implementation monitoring activity would have provided forewarning of these problems.

The most prominent finding from evaluations of the Follow Through program was that there was more variability in outcomes,

from site to site, than there were differences among curriculum models (Abt Associates, 1977). The potency of the "treatment," in other words, was counteracted by other conditions. Despite controversy over other aspects of the Follow Through evaluations (e.g., House et al., 1978; and Anderson et al., 1978), this finding has been unchallenged. The design of the evaluations did not directly address the implementation process, however. As noted by Hodges et al. (1980, p. 42), "...one of the real misfortunes of the Follow Through evaluations is that so little can be said about why the various effects occurred." Thus, one can only speculate about the reasons for this outcome.

First, it might be claimed that variations from site to site existed because the treatment was weak or non-existent. One would expect a high degree of variation, for instance, in the local outcomes from a federal financing or general revenue-sharing program, where local sites might only be asked to account for the funds but not necessarily to spend them in any uniform way. In the case of the Follow Through program, this argument must be ruled out because the curriculum models were an explicit and essential part of the program. Local sites were to work with specific model sponsors, who in turn were to help implement a specific curriculum change. Each model sponsor worked with several local sites (there were 22 sponsors and 178 sites), and the collaborative activities were intense. In spite of this program design, which involved the selection of specific curriculum models and assistance from an external organization, varia-

A second possibility is that the local variations were a reflection of a systemic condition in this country. According to this argument, local sites chronically differ from each other to such an extent that no uniform changes can ever be expected. In part, such an argument does have some surface validity. Every teacher seems to teach in a distinctive manner, and every school does produce its own unique brand of education. Moreover, differences in neighborhood populations create considerable differences among school populations. In spite of these observations, however, the localist argument cannot be fully satisfying. Any emphasis on the differences among schools cannot be made without equal attention to their similarities. After all, from locale to locale, parents and students still find educational services operated in much the same way, and the success of the operations are often judged by the same standardized tests. Thus, from another perspective, school practices may even appear to be overly homogeneous, which in the past has in fact led to the desire to create alternative schools.

A third explanation for the Follow Through finding is an implementation argument: The original curriculum models and the conditions at the local site interacted in a distinctive manner, producing an idiosyncratic set of outcomes. This explanation lies at the heart of Berman and McLaughlin's research on other federal education programs (1974-1978), which found that "mutual adaptation" occurred whenever a new practice was installed in a school; both the practice and the school changed in the process of implementation. In short, the implementation process itself will have an effect on the outcomes of the program.

Of the three explanations, the last--emphasizing the importance of the implementation process--seems to be the most plausible. The major finding about the Follow Through program, then, may be regarded as an implementation finding and therefore reinforces the desire to understand and monitor the implementation process. In the course of installing a new program, some changes seem to be occurring that have an important impact on programmatic outcomes. Yet, we seem to have little knowledge about these changes and hence can do little to control them.

In spite of the general importance of the implementation process, as well as the possibly critical role it played in the Follow Through program, the shape of any analysis of implementation is not obvious. Implementation theory is still insufficiently developed at this time (Hargrove, 1980) to offer any practical advice on how implementation is to be monitored or analyzed. The conceptual framework described below offers one such possibility.

Models for Analyzing Implementation

Macro- vs. Micro-Implementation. Previous work on the implementation of federal service delivery programs has tended to distinguish between two stages of implementation (McLaughlin and Berman, 1975; and Berman, 1978). First, a program must be designed and installed in a way which allows it to actually begin functioning in the service delivery role. This stage is termed macro-implementation. Second, intended recipients of services must accept and actually use the resources, programs, ideas or other capacities that are delivered. This second stage,

which has received the greater amount of attention in the educational literature, is called micro-implementation (for studies of micro-implementation see Fullan and Pomfret, 1977; Berman and McLaughlin, 1974-1978; and Rosenblum and Louis, 1979).

The Need for a More Refined Model: Examples From Follow Through. The concepts of macro- and micro-implementation at first appear effective in defining different bodies of literature, particularly within the field of educational research. However, in any empirical inquiry the concepts are too gross to capture the process that is involved. To demonstrate this, an interesting exercise is to examine the reported experiences in implementing the Follow Through program (e.g., Elmore, 1976; and Weikart and Banet, 1976).

Several implementation difficulties were reported. Roughly in chronological sequence, a major change occurred when the budget for the Follow Through program was reduced in December 1976. As a result, the initial plan to support Follow Through as an action program, mimicking the success of the Head Start program, had to be revised. Interests by officials in the Department of Health, Education, and Welfare led to the development of Follow Through as a planned variation program, in which experimentation would be a deliberate part of the design of Follow Through activities. Unfortunately, as Elmore (1976) points out, the federal regulations and action guidelines for Follow Through were nevertheless not similarly revised, so that the planned variation and experimentation had to proceed under a set of rules more congenial to an action program.

Further implementation problems were encountered in the course of focusing on program (curriculum) models as the substance of the Follow Through activity. Again, Elmore (1976) notes that an alternative approach--systematically varying the structural conditions under which schools operate--might have been pursued instead and would have matched existing research and policy needs. The program models, however, were not well developed and generally did not specify the operational changes that school staffs were to make (e.g., Weikart and Banet, 1976). The organizations that served as model sponsors only gradually realized this problem.

A third problem, related to the first two, was the surprise encountered by federal officials and model sponsors in their first contacts with local project sites. The local projects, according to Elmore (1976), were not as amenable to external direction as, for example, had been the Head Start sites. One obvious reason for this was the fact that the Follow Through sites were within existing school systems, whereas the Head Start sites were non-school district facilities. Thus, to implement the Follow Through program, more protracted negotiations had to take place, and the resulting activities had to reflect district as well as federal priorities. For example, the local districts initially selected sites that were likely to succeed, and not necessarily those with the greatest need for Follow Through activities (Elmore, 1976).

Yet another series of implementation problems arose in the classrooms and schools in which the Follow Through activities

were to be initiated. The program models, as previously noted, had not been designed in such great operational detail that adaptations were precluded. What was eventually installed in each classroom was a set of curriculum activities that were, in fact, not later documented sufficiently for replication (Elmore, 1976). Moreover, teacher training programs had to be designed under hurried conditions, and the more general question of how to change teacher behavior remained unsettled (Weikart and Banet, 1976).

In summary, the Follow Through program involved a diverse and major set of implementation problems:

- the initial program mandate as an action program clashed with the later switch to an experimental program;
- the selection of curriculum rather than structural changes as the major intervention led to greater uncertainty regarding the practices to be installed;
- collaboration with local districts required compromises between local and federal priorities; and
- the installation of new practices in specific schools and classrooms followed an unclear path.

As an analytic tool, the macro- and micro-implementation distinction appears inadequate to classify this array of problems. A more elaborate framework seems necessary for understanding or monitoring this type of implementation process. Such a framework is described next.

A Five-Phase Model of Implementation. Based on observations of a variety of federal-local service programs, including Follow Through, a five-phase model of implementation appears necessary.

These five phases may be labelled:

- o a Policy Development Phase
- o a Program Development Phase
- o a Project Design Phase
- o a Practice Adoption Phase; and
- o a Practice Implementation Phase

It is important to emphasize the term "phase" rather than the more typically used notion of "stage," because these elements of the implementation process should not be considered as following a clear linear sequence. In some situations, there may be some evidence of linearity; however, phases are often overlapping or may occur out of sequence. Furthermore, the use of the term "phase" attempts to acknowledge the viewpoint that policy and design are emergent phenomena that are never fully formed, but are constantly in the process of formulation as different interests come together in a programmatic context (Farrar et al., 1979; and March and Olsen, 1976).

The five phases may be briefly described as follows. At the policy development phase, Congressional legislation and intent lead to the issuance of federal regulations regarding a new program. The regulations are usually issued after much review and comment, and the design of the program may already exhibit changes from the initial legislation. More important, the regulations are a detailed elaboration of the original legislation.

At the program development phase, the regulations are used to produce programmatic guidelines, including the issuance

of solicitations for proposals and, ultimately, the making of a set of project awards.

At the project design phase, each awardee designs a specific project, based in part on its original proposal but integrated with local organizational conditions and constraints. This phase ends with the establishment of a project organization and procedures.

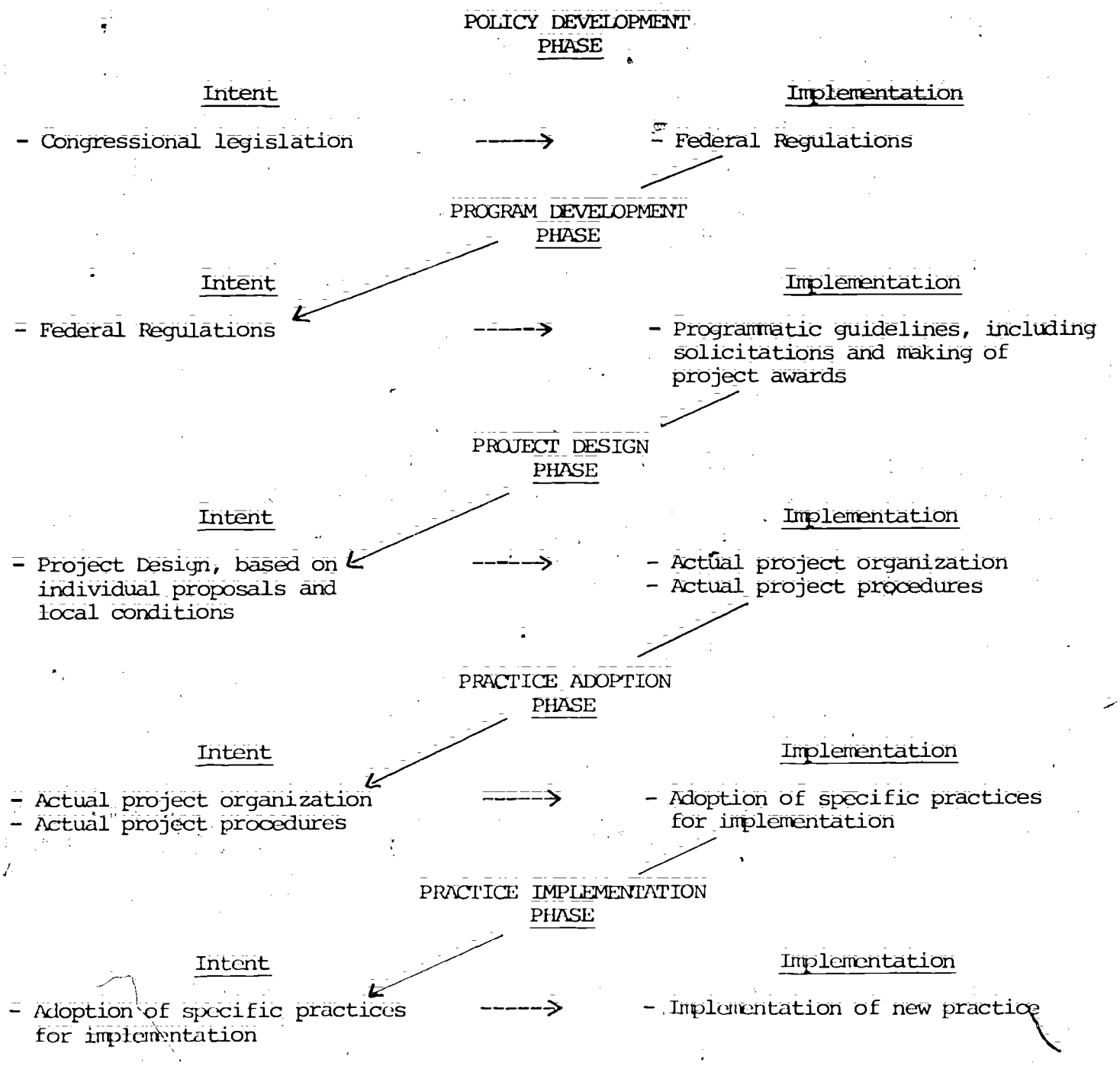
At the practice adoption phase, project procedures are adapted to the needs and conditions of the numerous local settings (e.g., classrooms or schools) that are to participate in the program. Specific practices (e.g., curriculum models) are selected as the ones to be adopted or installed.

Finally, at the practice implementation phase, the intended practices are converted into actual administrative or classroom practices. In the long run, these changes become incorporated into standard practice. The linked nature of these five phases is illustrated in Figure 1.

This model suggests that implementation at one phase frequently becomes a major component of the set of plans or intentions at the next phase. Intent at each phase is usually embodied in a set of goals or objectives. As a result of either conscious or serendipitous choices in the implementation of each phase, activities are set in motion that are believed to address the goals that were developed. However, in most implementation efforts, many choices must be made both quickly and in the absence of complete and sound information about the consequences that the choices may have for meeting the objectives that were intended.

Figure 1

FIVE PHASES IN THE IMPLEMENTATION OF A FEDERAL SERVICE PROGRAM INTENDED TO AFFECT LOCAL PRACTICE



Within each phase, the concepts of sound management, fidelity, elaboration, and reduction of self-contradictions are relevant. In general, these comprise a "muddling through" model of policy development (Lindblom, 1959). For instance, where differences between intent and implementation are a result of the serendipity of everyday coping decisions that are made by any organization or program, the concept of slippage (or lack of fidelity) is appropriate. Slippage can occur at every phase, with changes creating an implementation outcome that is different from the intentions at the outset of each phase.

Implementation Monitoring

A full analysis of the implementation process must involve intensive inquiry into all five phases of this model. The purpose of the analysis would depend upon whether it was conducted as the program was evolving--a monitoring function--or whether it was conducted as part of a post-hoc evaluation. The evaluation function appears obvious: The implementation analysis would provide a better understanding of how the programmatic outcomes had been achieved, and would also provide information on how to replicate efforts in the future.

More problematic is the monitoring function. If analysis were to be conducted as a program was evolving, how could the information be used? Suppose, for example, that analysts were able to note that a program was developing an increasing rather than decreasing set of self-contradictions (the differences between Follow Through as a planned variation program and the

program regulations that continued to assume Follow Through to be an action program constitute one such contradiction). Political necessities might dictate that such contradictions, however obvious, could not be eliminated. Under such a situation, the analysts' role would at least be to foreshadow the likely outcomes. (In this case, because the participatory and social service aspects of the Follow Through program were considered highly potent but could not be varied, the outcomes of curriculum variations could have been expected to have been minimal.)

In short, the more preferable objective would be for implementation monitoring to lead to changes in the implementation process. However, even if such changes are precluded by political or even administrative realities, a second objective is still relevant: The analysis should at a minimum lead to a more accurate anticipation of the likely outcomes of a program. The five phase model illustrates how such outcomes could be affected, and the following discussion covers the major concerns at each phase.

Policy Development. The major activities at this phase involve the development and passage of new legislation, and the issuance of the federal regulations for a new program. Several previous studies have examined the difficulties arising during this implementation phase (e.g., Bardach, 1977; and Rein and Rabinovitz, 1977). In general, the process must cope with the translation of overly general mandates, as reflected in the legislation, into an operational program. Because numerous individuals and organizations may participate in the process,

it has been correctly depicted as a bargining process (Ingram, 1977).

One of the distinctive characteristics of this phase is that political issues, as opposed to administrative ones, are more dominant in determining the legislation and regulations (Brown and Frieden, 1976; Derthick, 1976; and Rabinovitz, 1976). Thus, implementation monitoring and analysis must consider the political motives of the various participants. To the extent that the motives are contradictory and cannot be ignored, analysts may expect a program to produce mixed effects. To the extent that the motives are amenable to some sort of compromise, a new establishment of priorities can be encouraged, and the expected programmatic outcomes revised accordingly.

Program Development. An increasing amount of research has been conducted on this particular phase of the implementation process (e.g., Yin 1980a). Analysts had been generally aware of the importance of the translation of regulations into specific guidelines and solicitations, but the creation of a few major block grant programs (e.g., in community development and in employment) also resulted in the establishment of an extensive bureaucratic apparatus at the federal level. A headquarters, regional, and district office all began to have significant roles in implementing these programs, and this complex apparatus has been found to heavily affect the way a program is implemented--e.g., the local projects selected for funding (Williams, 1980a and 1980b).

This somewhat paradoxical outcome (the block grants were originally designed to increase local autonomy) has occurred over the past few years because of an increase in federal rules regarding the constraints and limitations on spending. In contrast to the political nature of the first phase of the implementation process, the program development phase is mainly influenced by bureaucratic rules--i.e., federal agency officials who conduct such activities as:

- translating regulations into guidelines,
- developing field monitoring offices,
- determining precise eligibility criteria for potential project sponsors,
- issuing solicitations for proposals,
- establishing the procedures for reviewing local plans, and
- monitoring progress.

As any federal program manager knows, much discretion exists at this level, even where the regulations may appear to have been explicit and detailed. Thus, loss of fidelity, incomplete elaboration, and increased self-contradictions can all occur at this phase. Moreover, wise federal officials already recognize the limitations on their actions, such as the issuance of solicitations. Such solicitations must be within the conceptual and economic reach of the local agencies or organizations likely to be submitting proposals. The best solicitation is not necessarily the one that calls for the ideal assignment; the solicitation is limited by the capabilities of the likely bidders (Weidman, 1977).

Whatever the program development process, the outcome is reflected in the specific project proposals that are designed. These may be formally submitted by local sites to a federal awarding agency; the projects may alternatively be part of an overall local plan, administered by a "prime sponsor." An awards process thus serves as one screen through which different proposed ways of operationalizing a program must pass. The outcome at this phase is the initiation of a series of specific projects, which will collectively carry out the mandate of the original program.

Project Design Phase. The project design phase is the first phase in which activities must be considered on a project-by-project basis. In other words, the unit of analysis for implementation monitoring must now shift from the program to the project level, and anlaysts must now be concerned with how each project is being implemented.

In this phase, the project design will be initially based on the proposal that elicited the federal award or that was part of the broader local plan. Generally, the project will have been initiated at a bureaucratic level which, while at the local level, is still one layer more general than the level at which practice is ultimately installed. The more general level may be considered a school district (in the case of Follow Through) or a "prime sponsor" (in the case of many other major federal programs). In either case, the project design is controlled by a set of administrators who themselves are not the ones who will install a new service practice.

For this reason, discretion may be assumed to have been transferred, at this phase, to administrative officials at the local level. The implementation of this phase is thus mainly at the control of local administrative officials, which contrasts this phase with the previous two--dominated by federal political and bureaucratic interests respectively.

Existing research has only begun to explore the implementation process at the project design phase. Large-scale evaluations have now tended to cover such issues as project administration and procedures, recruitment and turnover among project directors, and other conditions affecting the way that the project will be designed. However, the research has not yet led to a coherent body of theory.

The outcome, at this phase of the implementation process, is the development of a specific project organization and set of procedures. This outcome may vary from that originally proposed; in other words, the process of project design is to incorporate the initial intentions--as reflected in a formal proposal or plan--with a real set of resources, so that specific project procedures are established. The actual project, as implemented, may again only imprecisely resemble the types of activities that had been envisioned in the policy development and program developmentphases. Further slippage from earlier intentions may have occurred, and such phenomena must be documented as part of the implementation monitoring activity.

Practice Adoption Phase. The development of a specific project organization and set of procedures is but the beginning

of yet a fourth phase of implementation--ending with the selection of a specific idea or practice to be adopted, along with the identification of target sites and related adoption conditions. The process whereby adoption decisions are made has been one of the more thoroughly studied topics in previous research (e.g., Rogers and Shoemaker, 1971; and Rothman, 1974). The earliest studies of adoption decisions tended to focus on those situations in which an adoption was made by a single individual--e.g., a farmer, a doctor, or a consumer. However, this research has gradually expanded to cover those situations in which the adoption is made by an organizational unit, and in which the decision to adopt is therefore more complex and difficult to study (see Yin, 1979, pp. 368-378, for a review).

In the case of the Follow Through program, the adoption process involved the decision by a local project to select a specific model sponsor with whom to collaborate. In many cases, the sites already had working relationships with specific model sponsors; in the remaining cases, however, projects reviewed the potential sponsors of interest, and ultimately selected one of them. In either situation, one of the distinctive aspects of the Follow Through program was the need for interorganizational collaboration. This fourth phase of the implementation process therefore created a new complexity at the local level, again likely to affect the criteria of sound management, fidelity, elaboration, and reduction of self-contradictions.

Practice Implementation Phase. This final phase is the one that best matches the original objectives of Berman (1978)

in describing a "micro-implementation" process. Thus, once a new practice or idea has been adopted, the way that it will actually be implemented in local practice will be affected by a new set of conditions--local service situations, practitioner attitudes and behavior, and the robustness of the new idea in the first place (Elmore, 1978). As is now understood, numerous changes can occur during this phase, to the extent that the practice that is finally implemented may not even resemble the one that was initially adopted. Again, such slippage between intent and implementation may not necessarily be viewed negatively; perfectly acceptable adaptations may have been made in the translation from practice adoption to practice implementation.

At this phase, implementation analysts must pay close attention to the specific activities at the implementing sites (e.g., Attewell and Gerstein, 1979). There may be more than one such site per project, and the focus of attention must therefore shift to yet another unit of analysis--i.e., from project administration to site implementation activities. Whether changes in the implementation process can be made or not, the implementation analysis will at least reveal how activities might have changed, and how different outcomes might not be expected.

Implications for Future Program Design

This inquiry began with the observation that implementation outcomes seemed to have played an important though unassessed role in the Follow Through program, and that these outcomes are suspected to be important in numerous federal programs.

Because the implementation process appears to be so important, and because progarmmatic intentions often change to such a large extent when a program is finally implemented at the local level, our inquiry has suggested the need for close monitoring of the implementation process.

A five-phase framework can be the basis for such monitoring activities. At each phase, analytic concern must focus on four general criteria: sound management, fidelity, elaboration, and reduction of self-contradictions. Successful implementation at each stage will be an activity that has a positive effect on these criteria. However, even where the implementation activity creates new problems that cannot be resolved, the analysts' role is to develop sufficient documentation to foreshadow the ultimate outcomes likely to occur.

These five phases seem to be applicable to every situation in which a federal program involving service changes is eventually to be conducted at the local level. To reduce implementation problems, not only should analysis be conducted, but new programs ought to be designed with these implementation conditions explicitly addressed.