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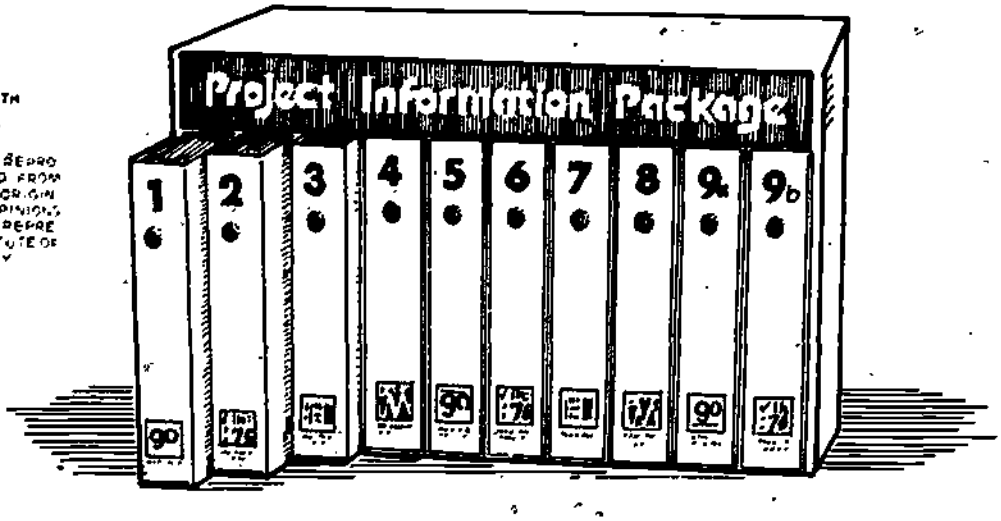
ABSTRACT

This report, the second of three volumes, presents recommendations for revisions to the USOE Project Information Packages (PIPs). Field tests were made to determine experimentally whether the six prototype PIPs were effective mechanisms for replicating the six exemplary projects and what modifications, if any, they required. The primary focus of this volume is the package per se and, in particular, the revisions in content and format required to maximize the utility of the PIPs within the replication system. Five of the most central themes and their relevance to recommendations for PIP revisions are discussed. These themes are (1) the motivational issues in replicating a compensatory education project developed outside of the replicating district, (2) the impact of federal funds on a replication project, (3) the identification of an appropriate context for replicating a project, (4) the timing and scheduling of the replication effort, and (5) the importance of the project director in the replication mechanism. (Author/MLF)

EVALUATION OF THE FIELD TEST OF PROJECT INFORMATION PACKAGES:

Volume II – Recommendations for Package Revisions



- Project Catch-Up
- Project Conquest
- High Intensity Tutoring
- Intensive Reading Instructional Teams
- Programed Tutorial Reading
- Project R-3

Prepared for:
U.S. Office of Education
Department of Health, Education and Welfare
Washington, D.C. 20202

RMC Research Corporation

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EVALUATION OF THE FIELD TEST OF PROJECT INFORMATION PACKAGES:

VOLUME II - RECOMMENDATIONS FOR REVISIONS

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PREFACE

This is a report of the first year results from a two-year field test of Project Information Packages (PIPs). The field test is sponsored by USOE under Title III, Section 306, of the Elementary and Secondary Education Act. The evaluation was commissioned by USOE's Office of Planning, Budgeting; and Evaluation.

SRI is the prime contractor for the evaluation of the field test of PIPs; RMC Research Corporation, developer of the PIPs, is the subcontractor. The first year of the evaluation focused on the viability of PIPs as a mechanism for getting exemplary programs implemented in new sites. The focus for the second year is on project outcomes. Final conclusions about the success of packages as a dissemination mechanism must await information to be obtained during the second year of the field test.

In Volume I we report on the concept of packaging. This volume, Volume II, reports the results of a formative evaluation of the PIPs and recommends revisions. Volume III reports the results of a resource/cost analysis of PIP projects.

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I INTRODUCTION

In this report, the second of three volumes, we present recommendations for revisions to the USOE Project Information Packages (PIPs). Recommendations are based on the 1974-1975 field test of the PIPs. A resource cost analysis of the PIP projects can be found in Volume III. Volume I describes the SRI evaluation of the field test and provides a detailed account of the history of the PIPs and the field-test.

The USOE has long felt that the effectiveness of federally funded programs--particularly those intended to provide compensatoy services to disadvantaged children--could be greatly enhanced through the diffusion of education projects and practices proven to be effective. It became clear recently, however, that the simple dissemination of information about such projects and practices was not a sufficient mechanism for bringing about widespread replication. For this reason, a decision was made in 1973 to attempt a more complete packaging of several exemplary projects. The purpose of this undertaking was to determine whether projects could be packaged with sufficient clarity and in sufficient detail to encourage and enable their replication at sites where educational needs had not been adequately met by existing programs of instruction.

In June 1973 a 12-month research and development contract was awarded to the RMC Research Corporation by USOE to identify up to eight compensatory education projects and develop replication packages for them. Six exemplary projects were identified, and packages were delivered to sites for field testing late in the summer of 1974. A description of the entire contract effort is presented in a report by Tallmadge (1974).

The current two-year evaluation of the PIP field test is the second step in answering the question of PIP viability. The field test consists of attempts by two to five sites to replicate each of the six projects, a total of 19 replications in all. The evaluation of the field test is being conducted by SRI with RMC as a subcontractor. The first-year evaluation activities have included five visits to each site to observe progress and collect student test data. RMC participated in these site visits and provided general support as requested, but was primarily responsible for developing recommendations for PIP revisions.

The original intent of the field test was to determine experimentally whether the six prototype PIPs were effective mechanisms for replicating the six exemplary projects, and what modifications, if any, they required. However, as the field test progressed it became clear that the questions of real interest were (a) What kind of a dissemination system would result in the replication of successful projects in new locations? (b) What role would an information package play in such a system? and (c) What should be in the package? The first two questions are addressed at length in Volume I. The primary focus of this volume is the package per se and, in particular, the revisions in content and format required to maximize the utility of the PIPs within the replication system which is expected to operate.

The general conclusion of the field test has been that the PIPs have been fairly successful in permitting accurate replication of the exemplary projects. This might be taken as an indication that

an adequate revision would consist largely of design and editorial improvements. In fact, however, it now appears that design and editorial considerations are of secondary importance. The most critical considerations in either the original development or the final revision of a PIP are (a) the selection of successful projects to package, (b) the analysis of the factors which constitute the successful projects, and (c) the analysis of the information needs of a replicating site. While the appearance and style of the package materials can certainly encourage and facilitate their use, it can do little else to ensure the establishment of a successful project.

The first consideration is related to the problem of finding dramatically effective projects suitable for replication. The PIP development task, as originally conceived, involved examining only about 24 projects (presumably all identified as successful) and then selecting the 8 projects most suitable for the packaging experiment. However, only a few of the 24 projects originally suggested to RMC could provide reasonably convincing evidence of effectiveness, and a search for demonstrably effective projects became a major part of the RMC effort. After eight months of intensive searching covering hundreds of additional projects, the RMC staff is convinced that there is, at the very most, a handful of compensatory reading or math projects that clearly and dramatically raise student achievement levels. It certainly appears that no existing project can raise achievement score distributions of disadvantaged students to the level typical of middle-class schools.

There appear to be two reasons for the shortage of demonstrably successful projects. First, it is very difficult to make dramatic

improvements in achievement by means of an in-school project, no matter how well designed and operated. Second, it is very difficult to set up an evaluation in the real world that will provide a convincing picture of the effects of the project. It appears to RMC that these are long range problems and that in the immediate future there will be very few projects which will meet USOE criteria for replication. Thus, any PIP replication mechanism would be applied to only a small number of different projects.

The development of PIPs is complicated by the fact that the identification of successful projects is a difficult, highly technical task. Although a procedural guide for the screening of project data was prepared under the original PIP development contract (Tallmadge and Horst 1974), such a guide is only of use to highly trained evaluators since each step in the screening process requires complex judgments. In short, there is no way to mechanize the identification of successful projects. This suggests that the selection of appropriate projects may be one of the most troublesome packaging areas and, clearly, if an inappropriate exemplary project is packaged, no amount of revision will lead to successful replicator projects.

The second consideration in producing a satisfactory package is the analysis of the exemplary site activities and features. A thorough discussion of this consideration can be found in Volume I, but two points should be reiterated here. The first is that no rigorous analytical procedures are available for analyzing projects. An analysis can be made only by a qualified individual on the basis of an extensive

background in the fsctors affecting learning, and a broad perspective gained by comparing a variety of successful and unsuccessful projects.

The second point is that the exemplary project site personnel, even those most responsible for the success of the projects, may not be aware of the factors which make their projects work. While intuitively it might appear that the exemplary site project director should be the ultimate authority on the important features of the project, the field test has demonstrated that this is not always so, and the successful identification of these features rests largely on the skill and experience of the packaging team.

The final consideration in developing a satisfactory package is the analysis of the information needs of a replicating site. This problem includes the design of the entire replication mechanism and involves determining the persons who need information, the information they need, and the time when they need it. Unlike the analysis of the originating projects, the analysis of information needs is, in principle, amenable to systematic development. The field test has, in fact, provided an unusual opportunity to study these needs and to elaborate a model of the replication process in which they are incorporated. In the remaining sections of this report we describe the development of this model and discuss the revision recommendations derived therefrom.

II PROCESSING THE FIELD TEST DATA

From the beginning of the field test, we accumulated data at a rapid rate from a variety of sources. The majority of the data was collected during Site Visits I, II, and IV in August and September, 1974, and April, 1975, respectively. Additional information was obtained from contact report forms submitted to SRI by replicating sites, exemplary sites, USOE, and SRI/RMC whenever a replicating site sought or received assistance from an outside source. It has been RMC's task to process these data in such a way as to permit the identification of needed revisions to the PIP mechanism.

It quickly became apparent that the PIP mechanism was effective to some degree. In spite of starting months later than the PIPs prescribed, personnel were hired, facilities allocated, materials ordered, and students selected, and instruction did occur. On the other hand, it was equally clear that in specific instances projects were not being replicated exactly as intended. Problems varied from PIP to PIP, and within PIPs from site to site, and included everything from difficulties in obtaining qualified staff and in ordering materials to using unspecified instructional approaches.

The reasons for problems encountered by sites fall somewhat naturally into three categories: (a) information in the PIP was unclear, ambiguous, or inadequately emphasized; (b) the process recommended in the PIP for accomplishing a task was inadequate (or on some points the PIP provided no suggestions at all); or (c) the initial conditions assumed in the PIP did not exist. Obviously, the three categories are

not independent. For example, where the PIP assumes the availability of highly skilled personnel, relatively brief explanations of tasks are provided. If such personnel are unavailable at a given site, the PIP materials may prove inadequate. If the assumption of available classroom space is not met, then the processes for arranging for space cannot be followed.

In some cases, revision trade-offs are possible. Assumptions about preexisting conditions can be relaxed and supplementary materials added. Thus, less experienced personnel may prove successful if they are provided with more support and training materials, but clearly there are limits to such trade-offs. No amount of PIP materials can produce a dynamic administrator or skilled teacher overnight and, while money can buy additional space, PIP information by itself cannot create classrooms.

Descriptive Model of the PIP Replication Mechanism

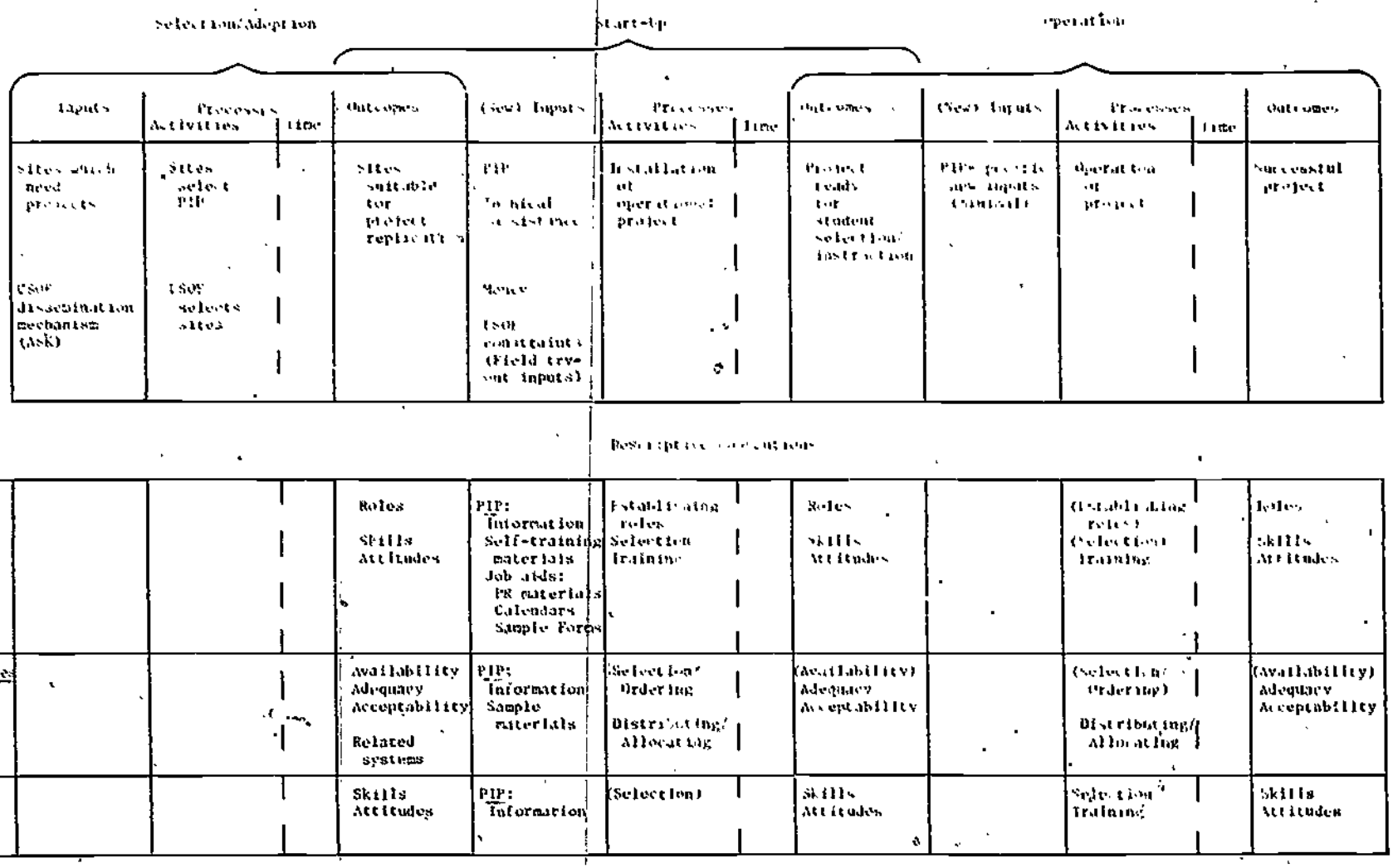
While the basic concepts of the PIP replication mechanism are simple and straightforward, the manner in which all conditions and processes are expected to interact to produce the desired project becomes extremely complex. For RMC to organize the data in such a way as to pinpoint the places in the mechanism requiring revision, some categorizing conventions were needed. These conventions were developed in the context of a model of the intended replication mechanism which will, it is hoped, provide some perspective on the entire process as now perceived by RMC, and permit a simple description of where and why revisions are recommended.

The basic concepts of the PIP replication mechanism derive from the original SRI/RMC proposal for the evaluation of the PIP field test. The model divides the replication of a project into three stages: (a) selection/adoption, (b) start-up, and (c) operation. Selection/adoption was assumed to be a dual process whereby sites select the PIPs that suit their needs and apply to USOE for grants, and USOE reviews the applications and awards the grants. Start-up begins with the delivery of a PIP and associated funds to a suitable site, and ends when the project is ready for operation. In general, start-up is completed by the end of the summer vacation. Operation is the instructional and administrative activity of the school year, beginning with the first contact between teachers and students for instruction or testing.

Each of the three stages is further broken down into inputs, processes, and outcomes, and these substages are organized to reflect the basic project components of personnel, other resources, and students. In this model all three components are receivers of inputs and processes, not initiators. For example, in the personnel section, data are organized according to what is done to teachers, not by them. This organization of the model is summarized in Figure 1.

The selection/adoption model is still under development. Refinement of this stage is contingent on the resolution of issues subject to USOE decisions. Selection of PIPs by sites and awarding of grants by USOE involve USOE and district-level personnel who are not part of the project per se and are not, therefore, included in Figure 1. Figure 1 is intended to incorporate only those aspects of the selection/adoption stage directly related to project components and does not

Figure 1: Descriptive Model of the PIP Replication Mechanism



reflect the assumed USOE dissemination mechanism or the site mechanism for securing grants.

Several other features of the replication model should be noted. The intended outcome of the selection/adoption stage is a site that meets the requirements for replicating the project chosen. This outcome is described in terms of the characteristics of personnel, other resources, and students at the site, and constitutes a major component of the inputs to the start-up stage. The remainder of inputs to start-up include the PIP, money, technical assistance, and other inputs that are supplied to the site to help in replicating the desired project. In other words, assistance supplied to the site is a subset of the inputs to the start-up stage. Inputs to the start-up stage also include the site itself with its personnel, other facilities, and students.

Similarly, the outcomes of start-up are inputs to the operation stage. However, unlike start-up, there are very few additional inputs during operation. This is a consequence of a basic PIP replication concept: the concept that a package of information (and associated funds) can be sufficient to produce the replication of a project if delivered to an appropriate site. To the extent that this concept proved unworkable in the current field test, new inputs in the forms of monitoring, technical assistance, and the like would have been required in the operation stage.

The process column under each stage includes the activities carried out at that stage and the timing considerations for each activity. Timing includes the amount of time allotted for each activity,

the sequences of activities, and the period in the school year during which the activity is expected to take place.

Descriptive Conventions Used in the Model

The lower section of Figure 1 displays the specific descriptive conventions (see Appendix D for definitions) adopted by RMC in categorizing field test data. Personnel are divided into (a) the project director, (b) other project staff, and (c) nonproject personnel. These categories were adopted because of the qualitatively different ways in which the PIP mechanism interacts with them. The project directors are central to the project replication. They are intended to be selected by the time of the site proposal or grant request, and most of the PIP materials are directed to them. While the PIPs provide them with some job aids in the form of calendars, sample forms, and the like, it is assumed that they possess most of the required characteristics at the time they are selected, and much of their PIP material simply describes what they should accomplish with minimal suggestions on how to proceed.

Personnel inputs and personnel outcomes are described in terms of the titles of the personnel required, and their required characteristics. Characteristics of personnel, or outcomes, are categorized under either skills or attitudes. In addition, for the purposes of the replication model there are critical roles, interrelationships, job positions, and the like, which are not considered to be either skills or attitudes. Thus, for example, the amount of authority assigned to a project director may be one of the most important factors to describe, and a third category of "roles, etc." is provided to encompass such personnel descriptors.

Processes related to personnel are broken down into selection and training. Training is taken in the broad sense to include any activities designed to change skills or attitudes. In addition to conventional skill training, this definition encompasses all orientation and instructional activities. Procedures designed to create roles or authority relationships may not fall under either selection or training (e.g., giving a project director the task of hiring teachers to establish his authority over them). Such procedures are included under a third category, establishing roles.

The remaining personnel column is (new) inputs. During start-up, these inputs include the PIP, other technical assistance, money, constraints, and, for the current year, field-test events. These inputs are described in this report in a manner that should be generally self-explanatory. The exception is the content of the PIP, for which the following descriptive conventions have been adopted.

Information includes descriptions of tasks and activities in terms of intended outcomes and their sequences. The significance of this category for the revision of PIPs is the assumption that project directors and other staff will know how to accomplish the tasks and activities described in this brief manner.

Self-training materials are intended to help personnel acquire new skills, and range from informal tips and suggestions to, in one PIP, a programed tape/slide training sequence. While it is not always possible to categorize materials unambiguously under information or training, the distinction is helpful in considering revisions because

it makes explicit assumptions on the extent to which various personnel will come to the project with the necessary skills or will require PIP assistance in acquiring them. By and large, the PIPs were designed as information packages with only limited self-training materials. The major project training activity, training of project staff, was generally assigned to the project directors, and it was assumed that they have most of the basic skills needed to conduct such training.

The major remaining component of a project is its students. Students are described under the same conventions as personnel. Their characteristics (outcomes) include skills and attitudes; selection and training are the processes in which they are involved.

Most of the description of students and the processes that affect them are included under operation processes and outcomes. While student outcomes in terms of skills and attitudes constitute the ultimate goals of any educational project, the major emphasis of the first year of current field test is on evaluating the potential of the PIP replication mechanism for the replication of selected instructional processes. These processes are included under the operation process of <u>student training</u>. It should be noted that these instructional processes can be defined, in large part, in terms of teacher behaviors and interactions with materials. Thus, student training will encompass the operation outcomes for personnel and other resources.

Conceptually, the model in Figure 1 provides a simple framework for isolating the points at which the <u>PIP replication mechanism</u> might be revised. In practice, however, there are major problems in describing

the replication mechanism in terms of this or any other model. In particular, the number of specific items that could be listed under each heading is infinite, so there is no practicable way of describing the mechanism exhaustively. For example, consider the problem of describing the skills and attitudes of the project director which are assumed to exist at the outcome of the selection/adoption stage. It is clear that the project director must have appropriate technical and managerial skills and must have a generally positive attitude toward the project. However, enumerating all of these skills and attitudes at a detailed level is clearly impractical, especially since it would be necessary in the process to exclude all the possible human characteristics the project director must not have. Attempting to list all the processes intended to modify personnel characteristics presents a similar problem.

Early attempts by RMC to produce such lists led to considerable frustration. The lists quickly became long and unwieldy with details that were obvious or trivial; when used as a basis of comparison for the actual sites, the lists never seemed to have a place for the critical site-specific problems. What was needed was a list of categories to systematize the description; this would provide an overall perspective on the mechanism in question and would highlight those parts of the mechanism requiring revision. Clearly, a systematic procedure for generating such a description was needed.

The procedure which was adopted took as its primary input the field-test data on problems encountered by sites. The rationale for this procedure was simply that any aspect of the replication process

that did not go as intended at one or more sites indicated a possible defect in the intended replication mechanism and a potential point for a recommended revision.

The data used to develop the model came from a variety of sources. The reports of site observations by SRI, RMC, and USOE site visitors were the major source of data. While it has not been practicable to list every sense in which sites are replicating successfully, it is quite possible to list the major ways in which sites are deviating from intended practices. Included here are examples of observed failures to replicate, problems and user comments on reasons for problems, ambiguities in the PIPs, and lack of information. Observers obtained verbal reports, reviewed marginal notes written in the PIPs by project staff, and looked for specific evidence of use or nonuse of PIP components. In addition, all requests by project staff for assistance from outside sources were monitored via contact report forms.

The first step in the analysis procedure was to screen all of the data described above. All reports and other data sources were systematically reviewed, each problem or deviation was entered on a separate card, and the cards were sorted into the various categories shown in Table 1. Initially, cards from each site were processed separately so that 19 different sets of cards resulted.

The resulting picture of the problems at a given site was incomplete. While the outcomes of start-up were generally portrayed fairly systematically, there were gaps in the preceding columns. The practical problems faced by the site observer virtually preclude

Table 1

FACTORS LEADING TO LACK OF TEACHER ENTHUSIASM
IN A PROJECT R=3 SITE

	Selection/Adoption Outcomes	(New) Input	Process		Outcome
			Activity	Time	
Personnel	• Project director uncertain if R=3 can be replicated this year • Project director is hired as "helping" teacher instead of "project director" • Project director has little administrative experience • Project director was not involved in or identified in grant application • Project director did not have district job appropriate to PIP role	• Inadequate funds allocated to pay two additional teachers (total of 12 is needed, project has 10) • PIP is not clear on how many planning periods teachers need per day • PIP does not discuss alternative staff configurations for more than or less than 250 students	• Principal rather than project director hires staff • Principal assigns existing seventh grade teachers to R=3 • Self-orientation for project director is limited • Project director has difficulty describing gaming/simulation to staff • Project director selects more qualified aides (both have their B.A. or M.A. degrees) • Staff orientation lacks enthusiasm	• Only one month instead of anticipated four months for start-up • Orientation occurs after schools open in September	Teachers are not enthusiastic about the R=3 project Project director expresses lack of confidence in being able to replicate R=3 for the current school year
Other Resources (Materials, Facilities)*	• Inadequate lead time provided for obtaining other resources on PIP schedule • Adequate copies of R=3 materials (from exemplary site) not available • R=3 materials viewed as relating to a different sociothnic group • District/school channels for approval of orders in conflict with PIP • Appropriate space for project director's and secretary's office not available • Appropriate classroom space for teachers not available	• Inadequate funds for 7th graders • PIP is not clear on which resources are essential to purchase • PIP does not state rational for purchasing certain facilities (e.g., carpeting and hexagonal tables) • PIP does not contain an adequate number of brochures on the core materials • Information on which gaming/simulation materials to order is unclear • Some gaming/simulation materials are illegible	• Facilities are not ordered (no carpeting and hexagonal tables ordered) • Classroom space for each teacher is not allocated • Materials and facilities are not distributed to each classroom as specified	• Ordering begins in August instead of May	Classrooms are not ready for instruction Adequate R=3 materials not available
Students	• Number of students to be served does not match PIP configuration (345 as opposed to 250)		• Students not grouped in groups of 20-22 (students grouped alphabetically in groups of 16-30)	• Project director has less than two weeks for grouping and scheduling as opposed to an entire month	Inappropriate pupil-teacher ratios

*Technically, time falls under selection/adoption processes.

recording every possible aspect of each process and every possible characteristic of each person involved in the project and, in many cases, the critical things to look for became apparent only after an associated outcome went awry. To identify and fill in the gaps we used the following procedure: the start-up outcome problems for a given site were organized into manageable units. For example, one unit might consist of required teacher skills which were not present at the end of start-up. The intended mechanisms which were designed to produce the skills were then systematically reviewed beginning with other start-up outcomes, then working backward through the related start-up processes, start-up inputs, and selection/adoption outcomes.

To be specific, when looking for the reasons why teachers lacked certain desired attitudes, the other start-up outcomes to consider would include, at least, the expected attitudes of the project director toward the project and the availability and adequacy of the materials and facilities. Next, start-up processes would be reviewed to see where breakdowns occurred in training the teachers or ordering materials. Then start-up inputs would be examined to determine where the PIP appeared deficient, where the outcomes of selection/adoption were not as expected, and where money, USOE constraints, field-test inputs, and the like, affected training or ordering processes.

As each category of the mechanism was considered, there were three judgments to be made: (a) the category does not bear on the problem under consideration (e.g., lack of desired attitudes), either directly or through any relation to an intervening category that

relates to the problem; (b) the category is relevant to the problem, but cards are already prepared for the deviations at this site that fall in this category and affect the problem; (c) there appear to be relevant deviations in the category that were either overlooked in screening the data or not recorded by site visitors. Where a deviation was simply overlooked, a card was prepared and included in the appropriate category. Where the information was missing (e.g., where there was no information as to why specific materials were unavailable), a note was made to obtain the information by phone or during a subsequent site visit. An example of the resulting site description is shown in Table 1, abridged somewhat for illustrative purposes.

Once this backward review process was complete for a given problem at a given site, it was repeated for the next start-up outcome and so on until all of the unintended outcomes were covered. As may be observed from Table 1, beginning with teacher attitude problems immediately brings in a variety of other outcome problems. Thus, successive outcome problems can be processed quickly, since many of their causes will have been previously noted.

Before the process was considered finished for the site, a forward review was also completed. This involved taking each deviation in the selection/adoption outcomes, and looking for expected problems at successive stages. This review was carried out in a manner analogous to that of the backward review, with each category of each stage given individual consideration. The result of this entire procedure was a set of cards for each site, categorized according to the model in Figure 1 and detailing for each site the critical steps in the replication

mechanism where problems occurred. An example of the content for one site (actual start-up personnel processes) is presented in Horst et al. (1975).

It should be reemphasized that the description of individual sites was in terms of the actual problems they encountered. The next step in processing the field-test data was to combine the data from all sites using a given PIP and to restate the problems positively in terms of the processes and characteristics that make up the intended replication mechanism. The products of this step are six descriptions, one for each PIP, of the project replication mechanism. These descriptions are, in essence, similar to those developed by SRI/RMC from the PIPs as the first step in the current study. The two major differences are that the stages of the replication mechanism are explicitly modeled, and the steps which have proven critical in the field test are systematically included in the descriptions. The descriptions should then provide the required basis for specifying required PIP revisions.

For the purposes of describing the overall findings relevant to PIP revision and ensuring that formats of PIP descriptions are consistent across PIPs, one final processing step has been undertaken. The descriptions for the six individual PIPs have been combined and summarized into a generalized model of the PIP replication mechanism. This model is an elaboration of the basic model shown in Figure 1 but, like the individual PIP descriptions, the model reflects the experience of the field test. The model is included in Appendix C.

Once the generalized model was complete, it could be used to process field-test data more systematically. Since SRI staff used the same analysis categories to process field-test data, it was possible to use SRI's analyses of individual sites to compile summaries for each PIP with brief site ratings for each category. A set of six summary analysis notebooks was prepared with a section for each column of the PIP replication mechanism (e.g., start-up processes), and, within each section, a page for each row (e.g., materials selection/ordering). These pages were numbered for cross-referencing to the revisions notebook described below. The analysis summaries focused on field-test-site problems that showed a need for revision, rather than attempting to document field-test results in general.

Each PIP analysis summary was prepared jointly with a revision summary. In a second set of notebooks, one for each project, RMC staff listed revision recommendations for the proposed new components of the Analysis and Selection Kit (ASK) and PIP.

Revision recommendations were keyed to the analysis summary by indicating the section where the justification for revisions could be found. In the revision recommendations, sources for revision data were also listed. The analysis and revision notebooks are designed to be the basic source materials used in preparing revised versions of the ASK and PIP materials.

III FIELD-TEST RESULTS

With the completion of the first year of data collection, certain problems and issues are apparent which will affect recommendations on PIP revisions and, ultimately, the viability of the entire PIP replication concept. These problems and issues have emerged as themes that run across the various stages of the PIP replication model (see Figure 1) and, in fact, are probably relevant to any replication or dissemination program.

In this section of the report we discuss five of the most central themes and their relevance to recommendations for PIP revisions. These themes are: (a) the motivational issues in replicating a compensatory education project developed outside of the replicating district; (b) the impact of federal funds on a replication project; (c) the identification of an appropriate context for replicating a project; (d) the timing and scheduling of the replication effort; and (e) the importance of the project director in the replication mechanism. Following the discussion of these five themes, we deal with several additional themes more briefly and list the specific concepts which proved most difficult to convey.

Motivation for Replication

Perhaps the most basic issue in developing a PIP replication mechanism concerns the reasons that anyone would want to replicate a project developed by someone else. The reasons, as originally viewed by RMC, seemed obvious and straightforward. The evidence is clear that very few schools have developed compensatory education projects

that have proven impressively effective. Thus, it seemed likely that many less successful schools would jump at the chance to replicate a project that embodied the secrets of success.

As RMC interacted with a variety of school personnel, it became apparent that this view was quite naive. It had seemed obvious to the RMC staff members that the development of a successful project is, technically, an exceedingly difficult task, that very few schools have been able to develop such projects, and that the most rigorous evaluation of achievement gains is a critical step in demonstrating effectiveness. However, it appeared that this orientation was not widely held among applied educators and, in fact, was totally alien to many. Instead, a more common philosophy appeared to be that a professional educator is capable of identifying a successful project when he or she sees it and furthermore, is able to choose selectively those ideas which will be helpful in his own school.

The RMC view implies intensive efforts to identify projects that "really work" (and, to the extent possible, to determine why they work), and then to replicate their essential features as accurately as possible in new settings. The more common view implies that the local educator should have a continual stream of ideas coming across his or her desk from as many "successful" projects as possible, so that he or she might select those ideas best suited to his or her school situation.

In the PIP field test this discrepancy in viewpoints has had a major impact. The PIP materials were written with the idea that a

site would be looking for complete information about what the exemplary site had done so that the new site could learn all of the approaches and emphases that made the project effective and could replicate the exemplary project as faithfully as possible. Actually, replicating sites have tended to search the PIPs looking for "good ideas" and, more to the point, looking for specific requirements that they must meet as a condition of their funding grants. In fact, the major concern of some sites has seemed to be how far they will be allowed to go in changing the projects to suit their perceived needs.

Since some field-test sites differ considerably from the exemplary sites, interest in adaptation is inevitable, and this theme is discussed below. The immediate impact on the field test was, however, to raise the issue of enforced compliance with PIP specifications. In particular, USOE asked RMC to settle questions as to which specifications should be enforced and which should not. This required a rather abrupt change in the orientation of the RMC staff. For approximately a year, they had been attempting to answer the question: "Given a site similar to the developer site, what will the personnel need and wish to know in order to replicate the original project?" The new question might be phrased: "Given a site which may differ substantially from the developer site, which project features, if forced upon the site, would be sufficient to ensure effective instruction?"

These questions are certainly oversimplified and the latter, in particular, is offered more as an attempt to define one of the possible extremes than as an attempt to portray accurately the USOE emphasis.

In fact, while this latter question appears to RMC to be unanswerable, there do appear to be techniques for increasing the likelihood that replicating sites will be motivated to replicate accurately.

A "carrot and stick" approach by a funding agency is the most straightforward approach. The carrot in the form of funds and assistance should provide the means of replication. The stick could take the form of firm insistence (by monitors thoroughly familiar with project features) on compliance with the spirit of the projects.

Where funds and monitoring mechanisms are unavailable, it may still be possible to encourage replication. Careful selection of sites and project directors can ensure that replication will be feasible and that relevant personnel will have a positive attitude toward replication. Sites can be given time to carry out the PIP prescribed activities. Finally, for concepts that were widely overlooked or ignored in the field test, PIP materials should incorporate a heavy emphasis on convincing the replicators. The motivation and rationale for the project approach should be carefully presented, and the consequences of ignoring the approach, illustrated by anonymous examples from the field test, should be explained.

Impact of Federal Funds

A second major theme which has emerged from the PIP field test is the impact of federal funding on all aspects of the replication process. Some of the effects are a result of the interaction of funding considerations with problems peculiar to a given site. Others are no doubt related to the fact that sites knew little more at the time they applied

for field-test grants than that funds were available. They were, in every sense, applying for a pig-in-a-poke, knowing only that they would be required to put up with an unspecified amount of evaluation and federal control in return for the funds and the PIP. Thus, while most sites reported specific instructional goals as their primary motivation, the bias may have been toward sites with compelling needs for money as opposed to sites eager to replicate a particular PIP project.

It now appears that at least three factors related to funding will always operate to a greater or lesser extent in any replicating site. One is simply that, given funds, sites will be motivated to replicate projects whether or not they are convinced in advance of the utility of doing so. However, they may apply for a grant with no real intention of replicating precisely. The need for money may override concerns about adhering to project intent.

The second factor is reflected in project directors becoming overly concerned with slavish adherence to minor details in the PIPs in order to meet grant requirements, while ignoring more central project concepts. This problem of failing to see the forest for the trees was aggravated in the field test by lack of time to assimilate PIP concepts.

The third factor is the amount of power acquired by the project and project director simply by virtue of controlling a large sum of money. Where properly used, this power may be very helpful in overcoming a variety of obstacles but where used excessively, as in commandeering space or placing heavy demands on principals, it may alienate the very people on whom the project depends for support.

Appropriate Context

A third theme that pervades the field test is the importance of an appropriate context for each PIP. The range of permissible variation differs substantially from PIP to PIP, but even the most widely applicable projects could not be considered "universal."

Many objective site characteristics can be matched fairly mechanically. Suitable sites must have the same problem that the selected project was designed to solve. This may mean little more than matching subject matter and student level, but lack of matching, particularly on student level, has proven troublesome in certain test sites. The size and organization of the school system must be such as to permit some reasonable configuration of the PIP project. Projects designed for large, urban districts may not be reasonable when scaled down to fit a small rural school. On the other hand, large districts cannot expect to serve their entire population of students during the first year, especially in those projects that require establishing a separate laboratory for every 50 or 75 students served. Both problems have been encountered in the field test.

The personnel at the replicating site must accept the basic concepts of the project and of the PIP replication process. Acceptance of the project includes the specific materials, tests, hardware, and motivational techniques as well as the general instructional concepts of the project. It also means acceptance of the origin of the project, including the socioethnic make-up of the exemplary-site staff and students. All of these issues have arisen at one or more of the field-test sites.

Two implications of these context issues should be noted. First, replicating sites find many reasons for wishing to adapt projects to fit local preferences. In many cases, the things they wish to change may be the very ones which make the project work and, further, their reasons for making changes may be without justification. For example, in one site the project director wanted to change the materials used to teach reading because, he said, the materials recommended in the PIP had been tried previously in the district and the students had found them boring and frustrating. The project director was prevailed upon to order the PIP-specified materials and, according to the SRI site visitor who subsequently observed students using the materials, the students seemed highly motivated and interested. When used in the PIP-prescribed manner, the materials appeared to be very satisfactory.

The second implication of the context issue concerns the content of the ASK. Clearly if a replicating site is to match the exemplary site on all of the variables suggested above and is to accept the project in its entirety, the replicating site personnel must be aware of all the issues before deciding they wish to apply for the project. This means that the issues must be clearly laid out in the ASK materials, and recommendations to this effect are given in the next section of this report.

Time and Scheduling

The amount of time required for start-up and the specific times of year that various tasks should be accomplished are discussed in Chapter I of this volume. The issue is elaborated here because of the central role that timing plays in the replication mechanism as perceived by RMC.

The basic activities of start-up are obtaining and training staff, obtaining materials and facilities, arranging for student scheduling, and eliciting support for the project. The late start of the field test has resulted in problems in all these areas at virtually every site. Success in dealing with the problems has varied according to the nature of the problem, the project, and the particular site in question.

Perhaps the major problem is in obtaining appropriate staff. Several sites have had to settle for inexperienced project directors or teachers because experienced personnel were already committed. This problem is difficult to correct because, once hired, inappropriate staff are difficult to replace. It is clear this may be expected to have a permanent impact on the project.

Few of the sites were able to follow PIP training specifications before starting the project instructional activities and, while the effects of experience and in-service training should dissipate this problem with time, it is bound to have some adverse effect on the initial operation of the project. Also, once staff members become used to operating a project incorrectly, it becomes more difficult to introduce new techniques. This could have a more permanent impact on project effectiveness.

Problems with ordering materials are relatively straightforward. The major requirement is for current information on what to order and enough lead time so that materials can arrive and teachers can familiarize themselves with the materials before school starts. The arrival of certain materials before school starts is critical to appropriate

instruction in most projects. If substitutions are made for basic materials, the character of the projects could be entirely different. This is clear in tutoring projects that use a structured sequence. If materials requiring very different types of interaction are used, the project is likely to become established in an inappropriate pattern. In at least one lab project, teacher-made dittos were substituted for commercial materials for several months. Behavior problems and an atmosphere of tedium, so inappropriate to a laboratory project, were evident until materials arrived. This would be unnecessary if ordering was completed early enough. Allocation of facilities, is more complicated since commitments are usually made in the spring or summer. Scheduling of students is closely related since, like allocation of facilities, it is usually handled by the school principals and is fixed in spring or early summer. Most sites were able to provide some sort of solution to these problems, but in some cases the last-minute reallocation of facilities and the reshuffling of schedules aroused lasting hostility at the sites.

After problems with obtaining personnel, the most irreversible effect of a summer starting date would appear at this point to be the impossibility of involving school personnel at an early date and eliciting their support. It is still too soon to assess the ultimate impact of this problem on project success, but it is clear that projects do not survive without fairly widespread support, and it may be that long term funding would be required to permit a project to recover from early hostility.

Appropriate Project Director

The final major theme to be developed here is the critical role of the project director. In every project, the project director is the administrative driving force that must make the project work. In four of the six projects, the project director also plays an active professional role in the operation of the project. Without a highly motivated and reasonably dynamic project director there is little reason to expect that any of the projects can succeed.

In the search for successful projects conducted by RMC, the qualities of the project director seemed to be among the major variables affecting project effectiveness. While a good project director is clearly not sufficient to ensure success, the contributions of a director seem to be necessary to the operation of most of the projects reviewed, and, in particular, to four of the six PIP projects. Although RMC tried to find projects which minimized the importance of any one key person, very few such projects could be identified. Only the two tutoring projects appear to be able to operate with only administrative inputs from the director, and even these projects require a highly competent director during the start-up stage.

The need for qualified project directors has figured in all of the PIP mechanism development. The general solution, as conceived by RMC, is to select the best project director available as part of the selection/adoption stage, and to provide him or her with a maximum of support in the PIP. Due to the time schedule for the field test, very little input to the selection of project directors was possible, and the test-site project directors are, in general, one or more steps

down the administrative ladder from the project directors in the exemplary sites. In some sites, a combination of enthusiasm, talent, and PIP inputs has produced remarkably good results, but in others the lack of experience has reduced the success of the projects.

To a large extent, district-level officers, much like the exemplary site project directors, were responsible for obtaining the grants. However, rather than operating the projects themselves, they have assigned the title of Project Director to a person at a lower level (e.g., a local reading coordinator). This has created administrative structures quite different from the exemplary sites, where the administrative authority and operational responsibility resided in a single person. In many of the replicating sites, the project director has the operational responsibility while much of the authority appears to remain in the hands of the district officer who obtained the grant.

The problem of authority structure was aggravated in the field test by time problems. Some of the project directors were new to administrative positions, and would have benefited, no doubt, by time to assimilate their new responsibilities and by the mechanisms built into the PIPs to establish their authority (e.g., project directors are supposed to hire the remaining staff, but in the field test this was often done by the district officer who obtained the grant before the project director was hired).

From the beginning, RMC has viewed the selection of an appropriate project director and the establishment of an appropriate role for the project director as central to successful project operation. As data

have been collected during the field test, this view has been clearly substantiated, although the unexpected ability of inexperienced administrators to set up a successful project with the aid of a PIP has also been encouraging.

Other Themes

The impact of the SRI/RMC evaluation is hard to measure, but has clearly been a factor in the replication. Many tasks have been initiated or completed to coincide with SRI/RMC site visits. In several cases, the first involvement of the project director was during the August site visit. There may be cases where tasks were rushed unnecessarily to meet a site visit deadline.

The need for technical assistance is clearly a function of the skills of the staff and the similarity of the replicating site to the exemplary site. However, even where sites are doing very well, there appears to be a felt need for reassurance on occasion. It also appears that reliance on the exemplary site for technical assistance will not be satisfactory. The exemplary sites are not experts on the start-up process since they did not develop the projects on the same time scale. Furthermore, projects and project directors change at the exemplary sites, and even the original project directors may not understand the problems faced by a site in a different context. In any case, if more than a few sites were to replicate in any one year, the consulting load on the exemplary site would be excessive.

Some sites desire technical assistance on ways of compensating for deviations, that is, if they have hired the wrong type of teachers

or obtained inadequate facilities they want advice on what to do to get the same results as the exemplary sites. Such advice may amount to changing the project in major ways and, without evidence of effectiveness, must be considered as speculative. To the extent possible this problem should be resolved by improving the selection/adoption process to preclude major deviations.

Budgeting problems of various types have occurred in several sites. One product of the field-test resource cost analysis is an improved budgeting model. For example, several districts did not release enough funds at the start of the project to allow for the purchase of needed materials. This kind of budgeting problem should be dealt with during selection/adoption phase.

Missed or Misunderstood PIP Concepts

While the themes discussed above stand out as critical in the revision of the PIP replication mechanism, many specific issues are also emerging. We discuss several of these below.

The preservice workshops were widely viewed as orientation sessions and, therefore, not very important. In revised PIPs these workshops should be presented as the central mechanism for putting the project together. They might be renamed Project Installation Workshops.

Mechanisms for establishing the roles of the project director were not followed. The important factor of involvement in obtaining the grant was not practical in the current field test. The need for a high-level person was not generally perceived. The jobs appeared to

be one-year, temporary positions. At some sites, staff members were hired before the project directors. Some project directors do not have complete authority over their budgets. The ultimate effects of these problems are still not clear.

Procedures for selection of students were not understood as having multiple objectives. Some sites streamlined the procedures or used existing district procedures and lost the intended contact between the regular classroom teachers and the project teachers. Even extensive discussion in the PIPs did not convey the importance of this issue. The value of the interactions with students during the selection process was also overlooked.

Enlisting the support of the regular classroom teachers has been given a low priority in several sites. In addition to the student selection procedures mentioned above, other PIP-specified mechanisms have been ignored.

Learning Atmosphere

Most PIP field-test sites focused on the required machines, the correct number of students, the appropriate categories of personnel, the correct schedules, and other clearly defined objective features. The result was that projects appeared superficially to be good replications, even outdoing the exemplary sites in materials, equipment, and decorations. Unfortunately, these trappings are not, in themselves, sufficient to ensure student learning. The actual interaction between teacher and students during instruction often differed in very important ways from that intended; a few replications became caricatures of exemplary site projects.

The less structured the program, the more this was a problem. For example, in Catch-Up, which has a relatively unstructured teaching situation, it is quite possible to equip the labs perfectly and still miss the Catch-Up approach completely. In Conquest, however, which has a more highly structured instructional system, the carrels and programed materials contribute substantially to creating the Conquest approach.

A solution for the less structured project may be to present the instructional approach on videotape or film to the new teachers, since these media are more suited to conveying the atmosphere and dynamic interactions of the project than is simple printed exposition.

IV SPECIFICATIONS FOR PIP REPLICATION MECHANISM MATERIALS

Assumptions and Issues

To be fully effective, materials for use in any replication effort must be carefully tailored to the exact processes that will actually operate. The specifications described in this section are intended to reflect both the experience gained from the PIP field-test mechanism and the RMC understanding of the mechanisms that may be established in succeeding years. The following key assumptions affect the specifications in major ways:

Ability to Replicate

PIPs are not projects. They are simply packages of information about projects and provide neither the resources nor the attitudes that the projects require. In designing a PIP, it must be assumed that any site attempting to use the information to replicate a project will have access to the necessary building blocks. In general, these include the availability of a qualified project director, appropriate staff, funds to pay these personnel and purchase materials, and basic facilities required for the project. The ability to replicate also requires a supportive school district environment, where the principles of the project are acceptable and the acquisition of appropriate staff and materials is facilitated.

To some extent, it is possible to compensate for deficiencies in the experience of personnel. In particular, it has been found in the field test that a talented and enthusiastic project director can make up for a lack of administrative experience by relying on PIP guidance.

Similarly, talented teachers learn new approaches and techniques readily. Revised materials should provide these inexperienced but talented personnel with the additional information they need to acquire the new skills quickly. But in general, a PIP can only describe the required context and resources. It can not supply them.

Motivation to Replicate

Given an appropriate context with the required personnel and material resources, it must still be assumed that a site has some motivation to replicate a project. During the initial PIP development process, it was assumed that the opportunity to install a uniquely successful project would provide the incentive to follow the procedures of the originating projects as closely as possible. This has not proven to be true since professional educators do not generally perceive project success as being extraordinarily unique or difficult to achieve and are inclined to trust their own judgments on specific details rather than following PIP instructions slavishly.

The field test involved a much more tangible incentive in the form of money, that is, careful adherence to PIP instructions was a condition of the field-test grants. This procedure was quite effective in getting sites to follow the PIPs, even in cases where PIP procedures were initially perceived as arbitrary or undesirable by the replicating staff. It is interesting to note that, in several instances where sites initiated such procedures grudgingly, the procedures proved their worth and the attitudes of site personnel toward them became increasingly positive. In any case, it now appears

unlikely that large-scale funding will be a continuing part of the PIP replication mechanism and any "enforcement" of PIP procedures by any agency appears unlikely. It must be assumed, then, that the basic motivation to follow the procedures specified in the PIPs will have to be generated by the PIP materials themselves.

Timing of the Replication Process

A basic motivation for the PIP development effort has been the perceived desirability of establishing new, successful projects in short periods of time. All existing PIPs are based on schedules that will have the projects reasonably operational when school opens in the fall. To meet this schedule, most projects require extensive start-up activities during the preceding spring and summer months. The costs of start-up include staff time and the materials to equip project rooms. These costs may run from a few thousand dollars up to twenty or thirty thousand dollars, depending on the nature and size of the project.

The PIP specifications assume that the associated funding problems are manageable. If, due to budgetary considerations, materials ordering and other start-up activities must be delayed until July or even later, the current PIP mechanism will not be suitable for most projects. Compensating for the lack of spring start-up is not simply a matter of slipping the September start date by a few months. In general, the required teachers and other resources have already been committed to other projects by the end of spring term and are simply unavailable.

This is not to say that a PIP using a different time scale would be either less useful or more difficult to design. PIPs designed to permit start-up over a period of one to two years would be quite possible. They should also fill a very real need, especially in schools which have in the past been unable to develop effective projects on any time scale. It should also be noted that the current PIPs are, in a sense, evolutionary approaches requiring several years for complete development, since only rather small configurations are recommended for the first year of most projects. Nevertheless, the current PIP mechanism is based on a one-year timeline, from awareness to operations, and the utility of the PIP materials recommended in this report rests on the assumption that funds will be available for spring start-up.

Two other issues must be discussed briefly. The first concerns the amount of technical assistance needed by a site to replicate a project. In some cases, PIP materials recommend specific kinds of technical assistance and describe how the assistance can be obtained. In most field-test sites, project directors and teachers felt a need for moral support and wanted to see the originating sites or talk to the exemplary project director. However, it did not appear that replicators needed contact with the exemplary project to replicate accurately, or that the exemplary project director was the best source, even where information was truly needed. For these reasons the specifications for revised PIP materials are still based on the assumption that replicators will not have access to the exemplary sites.

A final and especially critical issue concerns the relation of a PIP replication project to existing projects in the district. In the field test, PIP projects have been used to fill in areas of need which no preexisting projects addressed. An alternative use which now appears likely is the use of a PIP to replace an existing project. This possibility has profound implications for the viability of the PIP concept, especially where the only hope for the success of the selected PIP project is to release established personnel and hire a new project director and staff. The practical and political problems of such an attempt should be obvious, and there appears to be a definite possibility that sites will try to use PIPs in this way. The problem of using inappropriate existing staff or facilities in PIP projects should be addressed in the ASK so that it will arise as seldom as possible in practice, but beyond that, methods for dealing with this problem are beyond the scope of the PIP materials.

Revision Principles

In addition to the above issues and assumptions, there are several general revision principles that apply to all PIPs. The first involves changing the PIP materials from a process orientation to an outcome orientation. This change is recommended as a result of the persisting confusion over the issue of the "essential features" of each project. In the prototype PIPs, the project features were presented by describing project resources and explaining processes for using the resources. Given this approach, the task of defining exactly which features were "essential" and which were "flexible"

was impossible for two reasons. On the one hand, there are always several ways of doing anything and, in some instances, the exemplary site may have chosen a particular approach rather arbitrarily. On the other hand, the approach used by the exemplary site may have been developed to capitalize on a unique situation and might have had very different results in a slightly different setting. Clearly, the outcomes, not the procedures, were essential, and the revised PIP should make these outcomes completely clear.

As discussed in the introduction to this volume, the identification of these outcomes is still a judgmental process which depends on the insight of the personnel who analyze the exemplary site. However, most of the essential outcomes are fairly obvious, broad, and noncontroversial (e.g., regular classroom teachers support the project and release students willingly; project teachers know each student's needs and provide suitable instruction).

This is not to say that exemplary site procedures are unimportant. To a large extent it is the development of workable procedures rather than the setting of unusual goals that distinguishes successful projects. Therefore, an approach of convincing replicators of the value of project procedures is the second major PIP revision principle. This principle derives from the assumption discussed above that there will be no monetary incentives to replicate accurately. In the field-test sites, PIP procedures were followed initially because doing so was a condition of the grants and, since

most of the procedures proved to be unusually effective, it is reasonable to hope that these procedures will be continued. In lieu of such incentives it will be necessary to convince replicators that PIP-specified procedures, while possibly requiring some site-specific adaptation, are basically practical and effective, and further, that commonly tried alternative procedures are likely to fail. Without the experience of the field test this approach would have been impossible. However, a considerable amount of information has been gained from the field test on the features that sites will tend to modify and, in many cases, on the consequences of such modification.

A third revision principle concerns the physical organization of PIP materials. In the prototype PIPs, all of the materials were packaged in a single large box and, within the box, were divided among 10 drawers on the basis of content. Only a single copy of each item was included in the box. This arrangement assumed that certain items would be shared among the project staff. Other items such as the teachers' manuals, which were clearly required in multiple copies, had to be packaged separately for shipping.

In the field test, the principle of sharing items did not work out, and it quickly became apparent that each person who needs access to a particular item should have his or her own copy. As materials were completed, it also became clear that the multidrawer boxes were unnecessarily bulky, and that by incorporating the content of various booklets as sections or chapters of the major manuals,

a much more compact and usable package would result. Therefore, it is recommended that the revised PIPs should be organized by type of personnel, with all required items packaged together for shipping. In practice, this will usually mean that one package of project director materials and several packages of teachers' materials would be ordered by each site. For some projects, additional packages will be required for principals or other special personnel. The contents of each package are discussed below.

A fourth revision principle is the addition of information on training and instruction. Of course there will also be extensive revision or expansion of every section of the PIPs to eliminate specific sources of confusion encountered by field-test sites, but the major modification will be the creation of essentially new materials on pre- and in-service training, and on instructional techniques. In keeping with the original conception of PIPs as information packages, very little in the way of training material was provided in the prototypes for either project directors or teachers. Thus, while project directors were told what training topics to cover with project teachers, they were not told how to conduct the training. Similarly, teachers were provided with descriptions of the kinds of instruction they were expected to provide, but it was left to the project director or to their own skills to organize the instructional program. Although this approach mirrored the development of the exemplary project and was reasonably successful in a few of the field-test sites, in general it was clear that additional materials would be required for the project directors if a satisfactory

preservice workshop were to be conducted, and that teachers could establish appropriate instructional techniques more quickly and with much more confidence if they were given detailed guidelines on how to proceed. These additional materials are described below in this section and in Appendix A.

A fifth and final revision principle is the addition of the funding agencies and potential project monitors or consultants as integral parts of the PIP replication mechanism. This revision of the mechanism generates a corresponding need to provide information and materials that may help the various officials contribute to the success of the replication process. While this critical component of the mechanism is still in a state of flux, it is possible to identify desirable inputs from relevant agencies and to provide the materials that would enable them to make such inputs. It is understood that as the dissemination mechanisms evolve, these materials should be adapted to fit new requirements.

Recommended Materials for the Revised PIP Replication Mechanism

The various manuals, brochures, and other materials now recommended for use in the PIP replication mechanism are listed in Table 2 and are discussed below. Detailed specifications are listed in Appendix A. These materials were discussed in RMC's preliminary revision recommendations (Horst et al. 1975) in relation to the prototype PIP components. Subsequent inputs from the field test and USOE have resulted in further reorganization and in changing the names of some items. These changes have been indicated in the discussions of the items.

Table 2

RECOMMENDED MATERIALS FOR THE REVISED
PIP REPLICATION MECHANISM*

Selection/Adoption Materials

Analysis and Selection Kit (ASK)
1. Overview brochure
2. Project Selection Guide
3. Project description booklets (6)
4. Criteria checklists (6)

Project Orientation and PIP Application Materials
5. Presenting Project __ (guide)
6. Filmstrip/cassette tape
7. One-page handout description
8. Illustrated brochure
9. Poster
10. Applying for a PIP
11. Budgeting Worksheets

Funding Agency Materials
12. Disseminating agency manuals
13. Applying for a PIP (model)

Start-Up/Operation Materials

Project Director's Materials
14. Project Management Directory (with Evaluation Manual)
15. Materials/Equipment Package
16. Project Management Calendar
17. Orientation/public relations package
18. Training Manual
19. Training videotape
20. Tape/slides skill training kit (PTR only)

Teacher's Materials
21. Teacher's Manual
22. Project-developed materials (Materials/Equipment Package)

Materials for Other Personnel
23. Conquest counselor's manual
24. Conquest nurse's manual
25. PTR principal's manual

* See Appendix A for specifications.

Materials are grouped in Table 2 into adoption/selection items (formerly referred to collectively as ASK items) and start-up/operation items (formerly referred to as PIP items). This grouping is determined by the initial point in the replication mechanism at which materials are expected to be used. Most of the selection/adoption items will continue to be used during start-up and operation.

Analysis and Selection Kit (ASK)

The concepts and scope of the ASK have changed continually during their development in parallel with the corresponding development of the dissemination mechanism to which the ASK relates. It now appears certain that this development process will continue and that no single fixed mechanism will be established in the immediate future. In developing these recommendations, an attempt has been made to make the materials as flexible as possible so as not to restrict their usefulness to any single dissemination process, but it must be recognized that unanticipated changes may require further modifications or revisions of the materials.

In this report the term "ASK" has been reserved for the initial package of awareness and selection materials that a potential replicator will receive. The specific items in the ASK are:

Item	Former Designation
Overview brochure	ASK I
Project Selection Guide	ASK II
Project description booklets	ASK II
Criteria checklists	ASK II

This set of materials is intended to introduce district level local education agency (LEA) personnel to the concept of the PIPs and to the features of the six PIP projects. In addition, it should provide enough information on each of the projects to let the LEA official determine the suitability of each project for his district. Throughout these materials, the distinction between the projects themselves and the information packages which tell how to replicate the projects must be clearly maintained. While some educators may feel the need to see the complete set of PIP materials before determining whether they will be adequate to support the replication process in their districts, the ASK materials should present the project features and requirements in enough detail to permit selection among the six projects.

Getting an appropriate tone for the ASK materials presents some rather unusual problems, since the ASK must serve both marketing and screening functions. Since the entire purpose of the PIP development effort is to improve compensatory education on the widest possible scale, the marketing role of the ASK is clearly critical. All LEAs which could benefit from a PIP should have the PIP concept sold to them in the most convincing way possible. However, many LEAs will not be suitable PIP sites and these sites must be thoroughly and systematically discouraged from applying for a PIP. This requires a somewhat unconventional marketing strategy emphasizing that the PIP replication mechanism is very effective but only if the LEA conforms to the prerequisites.

It is intended that sites expressing serious interest in obtaining a PIP should get the entire set of ASK materials as a unit. However, some of the items may be useful in isolation as well. The Overview Brochure, in particular, is designed to do double duty. Recommended specifications call for a six to eight page brochure in an attractive format. It should provide an overview of the available projects and of the history and features of the packages that can be absorbed in no more than a few moments. In principle, this overview could be bound into the PIP concept booklet, but RMC is convinced that the same information will be needed in the format of a low-cost brochure suitable for mailing or handing out on a large scale and, given that such a brochure exists, it seems more efficient to simply enclose it in the ASK than to rearrange the information and print it in the PIP concept booklet.

The Project Selection Guide together with the project description booklet, should describe the details of the PIP replication mechanism and the types of materials included in a PIP as well as the major features and demands on the districts for each project. In short, after reading these materials, the LEA official should be able to decide whether he or she is interested in a PIP and, if so, which project is most suitable. The decision should be based on a clear understanding of what the district would be getting, and what it would be getting into.

The Project Selection Guide is intended primarily as an introduction and guide to the use of the six project description booklets,

although it could also be used alone as a detailed introduction to the projects and the PIPs. The major portion of the booklet should follow the topics and format of the project description booklets, but should describe the purpose of each topic and should discuss relevant project features that are common across all or most of the projects.

In addition to the projects, however, the Project Selection Guide should also describe the PIP materials and their intended use so that the reader can visualize the kinds of assistance that the PIP can provide and, equally important, the kinds of things that are not included in a PIP. It is especially important to make clear that the PIP is designed to permit the total replication of a complete, successful instructional and management system, and that it is not a useful grab bag of new techniques or ideas that can be pulled out and used in isolation.

Ideally, a third kind of information concerning the availability of grants and procedures for making applications should also be included in the Project Selection Guide. However, since this information will vary from state to state and from year to year it is recommended that it be developed separately by the appropriate funding agencies and inserted with the ASK materials.

Six project description booklets are recommended, one for each project. Each booklet should begin with a short narrative description of the most significant project features. Then in more detail, the booklet should (a) cover the instructional and management features systematically, (b) describe feasible project configurations

and associated costs, (c) explain the project requirements for personnel and other resources and facilities, (d) outline the tasks and schedules that would be involved in getting the project started, and (e) summarize the project features and demands in a checklist.

Since these booklets will serve as the introduction to the PIPs, they should be attractively designed and illustrated. Design should also take into consideration the critical nature of the information involved, since the failure on the part of a reader to identify a single important point could lead to an inappropriate choice and consequent waste of effort and money.

To facilitate comparisons among projects, it is recommended that the six booklets have identical format and be bound separately so that they can be opened to the same page and placed side by side for comparison of a single feature across projects. Booklets should be carefully coordinated so that common features are described in similar or identical wording wherever they occur; differences in the wording or order of points should indicate only real differences among the projects.

The criteria checklists are the final recommended item in the ASK. These lists are modified summary checklists from the project description booklets, printed on separate sheets of paper. Assuming that LEAs will apply to obtain a PIP from some state or federal agency, this checklist should become the application blank for the next set of materials (the project orientation and PIP application materials). The checklist itself should be completed by the LEA, indicating

agreements with project philosophy, availability of required personnel and other resources, and so on.

The purpose of including the checklists is to emphasize to the applicant that, as part of the subsequent proposal, it will be necessary to convince the agency that all of the listed points have been considered and that the selected project will indeed be suitable for the applicant's district. It is recognized that no such review process may be established in time for use in the fall of 1975, but the problem of getting the LEA to consider all of the important points in detail is a critical one, and RMC believes that the checklist/application offers a partial solution. Therefore, it is strongly urged that the most thorough review process possible be established for processing applications and that the checklist or some reasonable alternative play a central role.

Project Orientation Materials

The ASK materials are intended to let the LEA determine whether a PIP is desirable and, if so, for which project. Assuming that the appropriate district officials have decided to pursue the possibility of a PIP for a specific project, some asssumptions must be made as to what materials they will need next. The working assumption of the PIP replication mechanism is that they will have to present the proposed project to various groups (e.g., school board, superintendent, principals, teachers, parent advisory groups) for approval and, concurrently, develop plans for funding the project. It is recommended that a set of materials be provided to assist

in these tasks. (All of the orientation materials will have continuing application through start-up and into the operational stage of the project.) This set of materials (previously labeled ASK III) includes the following items:

- Presenting Project ___ (guide)
- Filmstrip/cassette tape
- One-page handout description
- Illustrated brochure
- Poster
- Applying for a PIP
- Budgeting Worksheets

While the LEA official will have had access to the ASK materials, he or she will probably find that they are not suitable for preparing a presentation to any of the groups named above. The ASK materials are designed to permit comparisons among six projects rather than to facilitate the presentation of a single one. The ASK also emphasizes the potential problem areas for each project, most of which should not be relevant in sites which have reached the stage of seriously considering proceeding with a particular PIP project.

The materials needed for a presentation are somewhat different. First, a model outline for a presentation should be included. Then the basic points about the project should be extracted from the appropriate project description booklet along with the general points and PIP description from the PIP concept booklet. Suggestions on uses of the filmstrip/tape orientation and the printed materials should also be included, and a set of questions to expect should be listed along with appropriate answers in summary form. Special emphasis should be placed on project features that have proven either especially

attractive or particularly troublesome to replicating sites. All of the above information should be incorporated into a single guide booklet for each project (Presenting Project).

The filmstrip/cassette tape represents a conventional and fairly successful orientation medium. The film/tape presentations in the prototype PIPs received mixed receptions but were used reasonably effectively in many sites. The major criticism was an excessive emphasis on the exemplary sites. Replicators who did not identify closely with the exemplary site characteristics were reluctant to use the film/tape. A general shift from a project management orientation to a students' perspective of project activities is recommended. It is also clear that substantial improvements can be made in the general appeal and technical quality of the films.

Before producing new filmstrips, careful consideration should be given to the potential advantages of 16 mm sound movie film. Although production costs for movie film are higher than for filmstrips, movie film is a substantially more flexible medium for conveying both the flavor and the details of project operation. While the filmstrip is intended only as an orientation item, the added information possible in movie film should make a presentation in this medium suitable for training as well. In this capacity it could be used as an integral part of the preservice training workshop both for orientation of new teachers and, to a lesser extent, for training on specific skills. Additional uses could be specified for subsequent in-service sessions. It is anticipated that these uses would improve classroom instruction

in the replicating sites and, further, that the film would reduce the high level of concern over not being able to see the exemplary project in person, and that these advantages would offset the higher production costs.

In addition to oral and film presentations, replicators clearly need accurate printed materials to aid them in orienting various audiences. The prototype PIPs included a variety of posters and handouts, but the one which was most widely used was a brief one-page summary of project features. This item was used as a handout for a wide range of audiences and as a poster for school bulletin boards. It is recommended that this item be included in the revised orientation materials.

Although the one-page handout was widely used in a number of sites, it was clear that more effective materials could be provided for some of the uses to which it was put if they could be carefully targeted. Therefore, it is recommended that the three main areas of use be distinguished, and separate materials prepared for each area. The one-page handouts should be directed at interested lay audiences, especially parents, and existing versions should be reviewed to eliminate any overly technical jargon. A second, more detailed, presentation should be developed for the professional audience including district level and school personnel. Finally, a poster suitable for display on a bulletin board should be designed specifically for that purpose. The objective of this item should be restricted to its awareness value, and a minumum of text should be included.

In combination, these three items should cover the major publicity and orientation needs expressed by replicating sites. To be maximally effective, it is recommended that posters not only be provided in multiple copies in the project orientation materials, but also that masters suitable for local reproduction be included in the project director's materials.

The two additional items included in this section are designed to assist the appropriate district level personnel in preparing proposals to agencies which might fund the PIP project. The first of these, the Applying for a PIP booklet should ideally list the available sources of funds and the procedures involved in applying for funds and should describe in detail the format and content of the required proposal. Clearly, this information can only come from the funding agencies. Unfortunately, it is not yet possible to specify with any finality which agencies will participate in disseminating PIP projects or what their roles will be in selecting, funding, and monitoring PIP sites. From the standpoint of the LEA official, however, the availability of accurate information on applying for new funding or meeting the requirements of existing funding is one of the most critical factors in determining whether it is possible to proceed with installing a project. Therefore, RMC recommends that, for the fall of 1975, the model Applying for a PIP booklet described below under Disseminating Agency Materials be made available in draft form to the various agencies participating in PIP dissemination. It is hoped that this will contribute to the process of getting more adequate information to the sites. In any event, the draft will receive a critical review prior

to the preparation of final copy in the spring of 1976, and this review should improve the utility of the material for use in subsequent years.

The final item, a set of budgeting worksheets for each PIP, is a product of the RMC resource cost analysis conducted during the first year of the PIP field test. The worksheets are intended to eliminate the major problems encountered by the field-test sites in attempting to construct a realistic budget for a project about which little is known. The worksheet should provide the LEA with the various line items required for the project, and the cost per unit for standard items (e.g., materials). Appropriate blanks should be provided for the numbers of units and for the cost per unit of items (such as teachers' salaries) which vary widely from district to district.

Disseminating Agency Materials

As discussed above, preparation of any materials for funding agencies (or other agencies participating in PIP dissemination) presents some difficulties, since the agencies and their roles are not yet clearly defined. Nevertheless, it is safe to assume that any participating agency officials will want to know something about the PIPs and, further, that some will be in a position to enhance the replication effort if they are given the information that they need. Materials to provide this information have been identified collectively in previous RMC documents as ASK IV.

It is assumed that the ASK will be included as a component of the disseminating agency materials. In addition, it is recommended

that a disseminating agency manual be prepared covering the following supplementary content: (a) orientation and history, (b) replication schedules, (c) proposal preparation, (d) proposal evaluation, (e) budgeting guidelines, and (f) monitoring of PIP projects.

A supplementary orientation and history section is required in addition to that in the ASK because of the special position of the disseminating agency official. It is assumed that the official will have some interest in the relationship of his or her own organization to the PIP development and dissemination system and will need to know the role of the agency in the replication mechanism. The official will need to have an overview of the factors that appear to contribute to the success or failure of a PIP replication attempt and, in particular, what should and should not be expected from a PIP.

A replication time schedule should be provided, giving the times that actions on the part of the LEA or funding agency are required. While it will not be possible to specify exact dates because of the variety of agencies and schedules involved, general types of activities, such as initial awareness, LEA selection and approval of PIPs, agency assignment of PIPs, and start-up activities, should be listed. The intent of the sequence should be made clear, and the anticipated consequences of altering the schedule should be indicated. It may be assumed that the recommended schedules will not be practicable in some instances, but the provision of a written schedule at this point in the development of the dissemination

systems should provide a fixed point from which to develop more adequate timelines for succeeding years.

A proposal preparation section should describe the inputs needed by the LEAs from the funding agencies to prepare adequate grant applications. Currently, such applications appear to be a major source of confusion in most LEAs. Many districts have highly competent personnel who specialize in preparing applications but, while their proposals may be of high quality, they may not always have the necessary information to focus on the points with which the funding agency is most concerned. This will be especially true with requests for PIPs, since experience from other grants will be of little relevance. In other words, if the funding agencies want to get relevant applications from LEAs, they will have to provide concise information on PIP application requirements.

In the case of smaller districts without access to professional grant application writers, this information is even more essential. It seems quite likely that, without considerable guidance, many such districts will be scared off by the unusual application procedures, and that these may be the very districts in which the PIPs would have the most impact.

It is recommended that, in addition to a brief discussion of the issues, a model of the booklet Applying for a PIP be provided to the various funding agencies. The model should be developed in cooperation with the agencies and, while it probably could

not be used in its entirety by any single official, it should be a considerable aid as a starting point for developing a locally accurate information booklet.

Proposal evaluation is closely related to proposal preparation. As PIP or grant applications containing specific proposals are received, the disseminating agency official will require some project-by-project guidelines as to whether a site is likely to succeed with the selected project. Factors to consider when reviewing applications should be listed in an annotated checklist format, and should include, at least, the project-relevant points to look for in a statement of needs, the critical context variables, the important project characteristics to which the district should agree, and the local personnel from whom agreement to participate should be obtained. For each factor, the annotation should include a brief rationale and an indication of the anticipated consequences if a particular requirement is not met by the district.

Budgeting guidelines should be provided since the LEAs may turn to the funding agency for help in this area. To a large extent, copies of the budgeting worksheets for each PIP project should provide the required information, but a brief explanation of each item should be included in the funding agency manual.

Monitoring guidelines may be the least used section of the disseminating agency manual, since it appears likely that many agency officials will have neither the authority nor the time to make extensive inputs to PIP sites. Nevertheless, the field test has

unequivocally demonstrated the impact that such monitoring can have, and every effort should be made in preparing materials to ensure that any monitoring which occurs has a positive effect. This section should explain the desirable impact that monitoring can have during both start-up and operation and provide checklists of relevant project features to look for if visits can be made to the sites. In addition, information should be provided on whom to contact for technical assistance on issues that are causing difficulty at the sites and, to the extent possible, on the action which should be taken when problems do arise.

Project Director's Materials

The project director's materials constitute the major part of the PIP proper. It is recommended that, under the revised organization, these materials be physically packaged as a unit or module, and teacher's materials should be packaged separately. It is anticipated that, for most projects, one package of teacher's materials will be supplied for each teacher, and one for the project director, but that only a single package of project director's materials will be required in a given site. This package should include:

- Project Management Directory
- Evaluation Manual
- Materials/Equipment Package
- Project Management Calendar
- Orientation/public relations materials
- Training manual
- Training film (tentative)
- Tape/slides skill training kit (PTR only).

The central item in the project director's package and, indeed, in the entire PIP, is the Project Management Directory. Because of

the problems encountered by field-test sites in locating information in the various prototype PIP booklets, it is recommended that all of the contents of relevance to the project director, with the exceptions discussed below, be bound together in a single volume. This volume should be organized, indexed, and designed to provide a convenient source of all of the information the project director requires.

The experience of the field test has illuminated two major kinds of content issues. The first involves the categories of information required by replicators. While much of the information is highly project specific, the content may be grouped under functional headings which are common to all existing PIPs. The recommended headings can be found in Appendix A. It is recommended that, under the revised organization, all information pertaining to a given heading should be included in the appropriate section, even though it may also be covered elsewhere (e.g., filmstrip) and some redundancy may result. The alternative procedure of extensive cross-referencing which was used in the prototype PIPs was found to be unwieldy and confusing. Project directors reported they were often unsure of where they had seen a particular point discussed.

The second content issue is the level of detail required on each point. The assumption on which the original PIPs were developed was that project directors would be highly qualified, and that only brief explanations and descriptions were required on most points. On the basis of the field test, it now appears that the PIPs could be substantially more useful in a much larger variety of sites than

intended if considerably more explanation were provided. At the same time, explanations should be more concise so that the reader will not be overwhelmed by the bulk of the content.

It is estimated that the revised sections of the Project Management Directory should each average about ten pages in length. This amount of text may indeed prove tedious to the highly skilled reader, and it is therefore recommended that each section begin with a single-page outline, or table of contents, that will enable the reader to skip quickly to those topics which are of current relevance. In addition, a one-page summary of the entire content area should be presented, giving the essential outcomes, the corresponding tasks, and the time schedule for accomplishing the tasks.

The construction and appearance of the Project Management Directory are important in relation to both credibility and convenience. While the cheapest way to prepare the manual would be in the form of a saddle-stitched, soft-cover book, it is believed that the increased credibility and flexibility of hard-cover ring binders will justify the added cost.

Any judgment on the credibility value of ring binders is admittedly subjective and would be exceedingly difficult to verify. Little evidence of impact on users could be gained by straightforward approaches such as asking user opinions or determining whether users would be willing to pay the difference. However, there is the logical argument that the PIPs are supposed to be

seen as a different kind of educational package, and preparing standard, soft-cover manuals, which have the same appearance as the student workbooks and other commercial materials with which teachers are deluged, would hardly seem to foster an image of uniqueness.

The utilitarian advantages of ring binders are more obvious and clear cut. The total bulk of the project director's manuals will run to several hundred pages and will comprise a variety of parts. The ring binder provides a durable, economical, and attractive container for these materials, and one which will stand up conveniently on a bookcase.

The flexibility of the ring binder extends to both production and use. From the production standpoint, it lends itself to binding in a variety of nonstandard pages. It is anticipated that these may include plastic sheets holding 35 mm slides, and tabbed section dividers. The ring binder also lends itself to changing or adding pages, and will permit a limited amount of final revision after sites receive their copies. In principle, this would also simplify updating of PIP materials, were this ever to be attempted.

From the user's standpoint, the ring binder is the only standard binding which is sturdy, lies flat when open, and permits sections to be removed and replaced readily for independent use. It also permits the project director to add materials easily as they are locally developed or obtained from outside sources.

The Materials/Equipment Packages should be derived directly from the Hardware/Software Packets in the prototype PIPs. The design of this section proved reasonably satisfactory. However, its utility was limited in practice by incomplete execution of the design. An additional review of the materials actually used in the exemplary sites should be undertaken, and descriptions of the contents, approach, special uses, and teacher evaluations of every item should be included along with accurate ordering information. Where possible, manufacturers' brochures and information on contacting manufacturers' representatives should also be included.

Future updating of the materials section remains a major unresolved problem. For many of the PIP projects, the information on ordering materials is one of the most useful parts of the PIP. The difficulty lies in attempting to keep the information current and accurate. Unless some mechanism for updating PIPs can be established, the value of this section will be greatly reduced with each succeeding year.

The Project Management Calendar is intended to reinforce the importance of the start-up and operation time schedules. It lists the tasks to be completed each month, and provides space by each date for the project director to enter appointments, deadlines, and the like. In the prototype PIPs, the calendar was bound into the Project Management Directory and, although some project directors have made good use of this item, often a conventional wall calendar was used for noting activities while the PIP calendar remained blank.

It is recommended that in the revised PIPs the calendar be a separate item based on the conventional commercial calendar format. Calendar pages should provide room to make entries by each date. The facing pages, which in commercial calendars usually consist of scenic pictures, should be attractively illustrated and should include a list of objectives and tasks for the month.

Ideally, the calendar, like the materials information, should be revised yearly. This could be done rather easily and inexpensively since only the date pages would need to be changed, but some mechanism for overseeing the operation would be required. Alternatives are to leave the date pages blank (requiring the project director to fill them in), to print calendars for several years ahead, or to print a single sheet containing all PIP information with a space for commercially available, unillustrated calendar pages to be attached.

The project director's orientation/public relations materials were discussed above under project orientation and proposal preparation materials. It cannot be assumed that the project director will be the same person who applied for the grant, and it seems desirable to include additional copies of the materials in the project director's package. Preferably, these copies should be in a format suitable for local reproduction, since this feature was widely requested at the field-test sites. This means that black-on-white masters in convenient sizes are required, because reproduction of colored, nonstandard materials is complex and expensive.

The filmstrip/tape presentation may be available from the district administrator who first received it, but the experience of the field test indicates that, if the project director is expected to use it, a second copy should be provided. In addition, some provision should be made for replacing film/tape materials that become lost or damaged either before or during operation of the project.

The recommended training manual would constitute a major addition to the prototype PIPs. The need for such a manual was clearly demonstrated by the generally inadequate or inappropriate training conducted at many of the field-test sites. Their problems were certainly aggravated by shortened and disrupted start-up schedules but, in most cases, there was reason to believe that additional time would not have made much difference, and that training would not have followed the intention of the PIPs.

The new training manual should be divided into two parts. The first part should serve as a detailed guide for the project director to use in conducting a preservice (project installation) workshop. The guide should be keyed to the teacher's manual and should provide suggested organization, content, schedule, and training techniques for each topic of the workshop.

The content of the workshop should, in general, be reduced from that suggested in the prototype PIPs. Rather than attempting to provide orientation to the entire spectrum of project skills, materials, and activities, the workshop should provide intensive training on the most imminent project tasks. In typical projects

these tasks may include ordering materials, setting up the classroom, orienting regular school staff, selecting students, establishing record-keeping procedures, testing students, and beginning instruction. During the field test, replicating sites, especially those employing a wide range of materials, tended to concentrate on mastering all of the materials at the expense of the other tasks and skills. Actually, it should prove more effective to work with a carefully selected subset of materials in the beginning days of instruction, and use scheduled in-service sessions to add materials to the program over the first few months of operation.

The second part of the training manual should provide guidance for the in-service training required in most PIP projects. General topics should be provided for the entire year, with more detailed session-by-session suggestions for the early months of operation. In-service training should complement the preservice workshop by providing review and expansion on relevant subjects after the teachers have become immersed in the project. During the first few months it should be seen as an extension of the preservice workshop, adding basic training on instruction or materials use as the instructional program develops.

The concept of a training videotape to supplement other training materials evolved originally because of problems certain field-test sites had in grasping what instruction looks like as a whole. While they set up the specified environment, obtained the correct materials, and hired the proper numbers of personnel, some of the less tangible features of instruction were distorted or missing.

It is clear that film and videotape are well suited to conveying the dynamic qualities of a project. Furthermore, in the last few months new high-quality, low-cost color cameras and editing devices have become available which have drastically reduced costs of producing suitable quality half- or three-quarter inch tape. A booklet conveying the same amount of information about the instructional process would require extensive analysis and writing time, and costs could easily equal or exceed the cost of a videotape. Printed information is also filtered through the analysts' perception, and much information is likely to be distorted or lost. Videotape provides an accurate picture of instruction including the affective setting and, by answering the question of what instruction really looks like, the need for costly site visits could be prevented.

However, despite the apparent advantages of videotape, the medium has not been formally tested as a PIP component. Therefore, a pilot videotape is recommended so that its effects may be systematically evaluated.

The tape/slides skill training kits are peculiar to the PTR PIP. This was the only project of the six PIPs for which skill training was required but for which the training capacity was unlikely to exist at the site. The basic format of these materials proved satisfactory and should be continued, although a number of specific revision requirements have been recorded by the field-test evaluation staff.

In addition to the items discussed above, the project director should get one set of the teacher's materials, described below.

Teacher's Materials

The teacher's materials are obviously important in any information package describing an instructional project. Because of the central role of the project director in most of the PIP projects, however, the teacher's materials have been relegated to a secondary status. The materials include:

- Teacher's Manual
- Project-developed materials, and/or Materials/Equipment Package.

The teacher's manual should serve as a textbook for the preservice workshop, and as a reference manual throughout the remainder of the year. It is recommended that this manual be prepared in the same format as the Project Management Directory, but that somewhat more investment is warranted in illustration and design. The emphases on the appearance of the manual and on its use as an integral part of the preservice workshop are intended to make the manual more attractive and familiar to the teachers, and thus encourage them to refer to it more frequently.

The organization of the teacher's manual should also follow the Project Management Directory. The manual should be in looseleaf format with tabbed section dividers separating the content areas. All information should be grouped functionally, with an outline of the content plus a summary of objectives, tasks, and schedules occupying the first two pages of each section.

Many projects require that the teachers have access to information on ordering materials. This information from the project

director's materials should be provided for teachers to use at their own convenience. Many PIPs also include materials developed at the exemplary sites, and copies must be available to replicating teachers.

The numbers and types of such materials are highly project specific, as is the number of copies required per site. In some cases, each teacher may need his or her own copies. In others, the number of items is large, and the cost of providing individual copies could be excessive. In these cases only a single set per lab, classroom, or other unit of organization may be required.

Materials for Other Personnel

It can be expected that some projects will require materials for personnel other than the project director and project teachers. Where these materials are limited to a few pages of orientation items, they should be handed out by the project director or teachers and incorporated as a part of their basic packages. In some projects, however, other kinds of personnel will play important project roles and will therefore require manuals of their own. Among the six projects packaged to date, only two originally incorporated such manuals. The manuals are:

- Counselor's manual (Conquest)
- Nurse's manual (Conquest)
- Principal's manual (PTR).

The counselor is an important component of Conquest, and the field test has demonstrated the need for an effective counselor's manual. The original Conquest site made use of a professional

counselor already employed in the district, and the prototype manual was based on her materials. Replicating sites did not have access to the part-time services of professional, school district counselors, and obtained less experienced personnel to fill the positions. These persons turned out to be extremely talented and capable, and the process was, on the whole, quite satisfactory. However, due to their lack of experience and their unfamiliarity with the project, their information needs were not completely met, and it is recommended that the revised manuals be supplemented to meet the needs of such personnel. The supplementary information should include additional suggestions on effective counseling approaches, and reviews of some of the counseling materials that have proven to be helpful.

The Conquest nurse's manual is somewhat simpler, since nurses can be assumed to possess the requisite professional skills. The manual provides an orientation to the nurse's role in the project, and samples of record-keeping forms used at the originating sites. Health services and record-keeping practices vary from site to site, and the manual requires some revision based on replicating site inputs.

The staff organization of the PTR project differs from the other projects in that the school principals play a more central role. A principal's manual is required to orient the principals to the project and explain the ways in which they can contribute to its success. Although the tryout has provided useful inputs which should be incorporated into the revised manual, no major redefinition of purpose or reorganization of content is required.

Based on the field tryout results, one additional item should be included. In PTR the "Teachers Manual" is actually used by the tutorial supervisor. It is recommended that a brief booklet explaining the actual teachers role be provided as well.

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V SUMMARY AND CONCLUSIONS

This report constitutes recommendations by RMC to SRI on PIP revisions. It is the position of RMC that the revisions to the existing PIPs outlined in Chapter IV of this report would be adequate to permit replication of the six packaged projects, given appropriate replicating sites. However, RMC feels that the more important question is whether a PIP replication mechanism can be developed that will actually result in dissemination of effective educational projects.

There are three basic parts to any such replication mechanism, and issues related to each part directly affect the revision recommendations prepared by RMC. The three basic parts are (a) identification of effective projects suitable for replication, (b) selection of sites for replication of the effective projects, and (c) provision of the motivation and resources needed to replicate the projects.

RMC believes that, at most, very few existing projects have a major impact on student achievement test scores, and that even fewer are suitable for replication. This implies that a substantial proportion of any long range development effort should go toward identifying (or developing) projects suitable for replication and, more immediately, that the number of additional packages developed in the near future will be small. In short, the revised PIPs should not be seen as prototypes for a massive packaging program. This position affects every aspect of ASK and PIP revision, from content to mediation, since it implies a small number of carefully developed PIPs rather than a large number of low-cost packages.

The second part of the replication mechanism is the selection of replicating sites. Issues affecting RMC revision recommendations include:

- The mechanics of the site selection procedures envisioned by USOE.
- The type of site in which USOE wishes to replicate projects.

These issues clearly affect the basic design of the ASK. They also affect every section of the PIP since they determine the qualifications of the project directors and other staff which, in turn, determine the level of detail and the amount of training material required in the PIPs. More generally, the selection procedures determine the match between the exemplary site and the replicating site and, unless this match is adequate, no information package can result in an accurate replication.

The final part of the replication mechanism must provide the motivation and resources required by the site. The PIP is only the information component of the required resources and must be consistent with the following USOE determined variables:

- Funding level
- Enforcement/monitoring level
- Technical assistance level
- Timing of funding (spring or summer).

It now appears that USOE intends to play a very limited role in funding, monitoring, and assistance. While the reasons for this position are clear, it must be made equally clear that the impact

which can be expected from any nationwide replication system is closely related to the level of federal participation.

If USOE is not supplying funds directly for PIPs, the timing of funding becomes an independent issue. The recommended PIP revisions assume enough funds to permit start-up in the spring. If such funds prove to be generally unavailable in the spring, then a quite different start-up schedule (perhaps 18 months) must be developed.

Since a PIP must be designed to suit the replication mechanism of which it is a part, and the current replication mechanism is in a state of flux, all recommendations included in this volume must be considered provisional. The field-test has demonstrated that a PIP can substitute for, or supplement, more costly technical assistance. However, neither packages, technicians, nor any other information source can create the required successful projects or the desire to replicate them. If PIPs are to play a major role in improving education in the United States it can only be in the context of a continuing project and dissemination system development effort. As the system evolves, the packages must keep pace with system requirements.

Appendix A

RECOMMENDED MATERIALS FOR THE REVISED PIP REPLICATION MECHANISM

Appendix A

RECOMMENDED MATERIALS FOR THE REVISED PIP REPLICATION MECHANISM

Selection/Adoption Materials

Analysis and Selection Kit (ASK)

1. Overview brochure
2. Project Selection Guide
3. Project description booklets (6)
4. Criteria checklists (6)

Project Orientation and PIP Application Materials

5. Presenting Project __ (guide)
6. Filmstrip/cassette tape
7. One-page handout description
8. Illustrated brochure
9. Poster
10. Applying for a PIP
11. Budgeting Worksheets

Funding Agency Materials

12. Disseminating agency manuals
13. Applying for a PIP (model)

Start-Up/Operation Materials

Project Director's Materials

14. Project Management Directory (with Evaluation Manual)
15. Materials/Equipment Package
16. Project Management Calendar
17. Orientation/public relations package
18. Training Manual
19. Training videotape
20. Tape/slides skill training kit (PTR only)

Teacher's Materials

21. Teacher's Manual
22. Project-developed materials (Materials/Equipment Package)

Materials for Other Personnel

23. Conquest counselor's manual
24. Conquest nurse's manual
25. PTR principal's manual

SELECTION/ADOPTION MATERIALS

Analysis and Selection Kit (ASK)

This package of materials will enable school district officials who administer funds for special projects to learn about the six projects that have been packaged for replication. The materials, including a brochure, seven booklets, and six criteria checklists, will be packaged in a vinyl envelope and mailed in a larger envelope. Directions for use of the materials will be included.

Item 1: Overview Brochure

Audience: District administrators

Purpose: To announce the availability of PIPs and provide a brief description of the projects.

Description: This six-page brochure tells that PIPs are available, what they are and why, and gives enough of a description of each project for the district administrator to decide whether further investigation would be justified.

Outline:

Cover page:	Name of program (PIP)
First page:	USOE disclaimer
Second page:	Overview of the PIP Approach to dissemination
Third page:	Brief descriptions of six projects
Fourth page:	Chart comparing projects
Fifth page:	ASK/PIP contents
Sixth page:	Adopting district commitments and steps to obtain a PIP.
Back cover:	Address space

Format: 6 x 9, two color, glossy.

Item 2: Project Selection Guide

Audience: District administrators

Purpose: To explain the PIP replication concept and provide guidance in using the six PIP Description booklets.

Description: This 14-page booklet introduces the reader to the PIP replication concept, serves as a guide for using the six description booklets and for choosing a project for further pursuit. It provides information about features that are common across all six projects, such as the importance of an effective project director. Roughly parallel in format to the six project description booklets which follow it, it has a distinctive cover design incorporating the PIP logo.

Outline:

I. PIP History
   - A. PIP development
   - B. PIP field tryout

II. ASK Contents

III. The PIP Concept
   - A. The Projects
   - B. Adopting a Project
   - C. Why Project Information Packages
   - D. Obtaining a PIP

IV. PIP Contents

V. Considerations in Selecting a Project

VI. Using the project description booklets
   - A. Introduction
   - B. Instruction
   - C. Management/Communication
   - D. Estimating Costs
   - E. Project Organization
   - F. Personnel
   - G. Materials/Equipment
   - H. Getting Started
   - I. Adoption Criteria

VII. Personnel
   A. Content and purpose
   B. Generalizations

VIII. Checklist
   A. Content and purpose

Format: 6 x 9 inches, one full-page picture; cover two color.

Item 3: Project Description Booklets

Audience: District administrators

Purpose: To explain the six projects and enable district personnel to select one.

Description: These six 24-page booklets have glossy covers, each in a characteristic PIP color, and exactly parallel formats for easy comparison and contrast. They are stapled separately but packaged together. Each gives readers an overview of one of the six projects. Descriptions of management and instruction emphasize the context and philosophy of each original project. Special designation of personnel requirements and common problem areas warns the reader of potential pitfalls.

Outline:

Front cover (outside): Title and PIP logo
Front cover (inside): project summary
Page ii: title page
iii: table of contents
1: one narrative, "child's eye view" paragraph describing project; line drawing
2: full-page picture characteristic of project
3: one-two paragraphs describing essence of project
4-5: instruction section (symbol) and bulleted points; problems to anticipate
6-7: management section (symbol) and bulleted points; problems to anticipate
8: centerfold: budget worksheet and description
9: configuration charts
10: personnel section (symbol); project director; bulleted points; problems to anticipate
11-13: remainder of personnel section and bulleted points
14: materials/equipment section (symbol) and bulleted points; problems to anticipate
15: facilities section (symbol) and bulleted points; problems to anticipate
16-17: getting started (schedule of tasks)
18-19: project summary (checklist of bulleted points)
Back cover (outside): USOE disclaimer
Insert sheet: order form for project orientation and PIP application materials

Format: 6 x 9 inches, two-color covers.

Item 4: Criteria Checklists

Audience: District administrators

Purpose: To serve as an order blank for the project orientation materials for a single project, and to reemphasize the critical features and requirements of that project.

Description: The inside of this item consists of the checklist from a project description booklet. The reverse side will be left blank so that ordering information can be added to suit each different funding agency.

Format: one sheet, single color, 8 1/2 x 11, folded once for mailing.

Project Orientation and PIP Application Materials

Items 5-9 make up the project orientation packet. These materials will be provided on request to help the potential project director or other LEA official in convincing a district hierarchy or parent advisory committee to endorse a PIP application. The materials will also be used as training resources to introduce staff members to the project. In addition, it is anticipated they will prove useful both for acquainting nonproject professional staff with a project and for conducting presentations to lay audiences with a general interest in the project.

Items 10 and 11, the PIP application materials, will be used by the district official charged with preparing the application for the PIP.

Item 5: Presenting Project ____ (Guide)

Audience: Project director or district administrator

Purpose: To provide guidelines for presenting an informational program about the project to general audiences.

Description: This eight page booklet describes the project orientation materials and suggests a format/agenda for presenting the project to an audience.

Outline:

I. Introduction

A. Importance and purpose of presentation: project success unlikely without support and general understanding

B. Possible/probable chief concerns and worries of intended audiences (e.g., parents, school board)

C. Presenter's attitude and bearing will influence audience reception and perception of the project

II. How to Use PR materials

A. List of materials and their purposes

B. How to use the materials

C. Other equipment (e.g., projector, screen)

III. Sample Presentation Agenda - what's going to be talked about/shown in sequence

IV. Anticipated Questions and Answers

A. Achievement data

B. Validation contexts

C. PIP Concept history

D. History of this project

E. Program for underachieving kids

F. Etc.

Format: 8 1/2 x 11 inches, 8 pages, unillustrated.

Item 6: Filmstrip/Cassette Tape

Audience: General

Purpose: To provide viewer with general orientation to project.

Description: This presentation, about 7-10 minutes long, gives a narrative of the project in full implementation seen through a student's eyes; project staff are drawn in from the child's perspective as they are encountered by the child engaged in the project.

Format: Color filmstrip, cassette tape, synchronized.

Item 7: One-page Handout Description

Audience: Parents

Purpose: To give concise accurate information about project to parents of participating children.

Description: Beneath a picture or line drawing that epitomizes the project are short phrases listing the main purposes of the project.

Format: 8 1/2 x 11 inches, illustrated one-side print, reproducible.

Item 8: Four-page Illustrated Brochure

Audience: Teachers, principals; board members

Purpose: To summarize main features and processes of project.

Description: The front cover will contain same picture or line drawing as item 7; inside is a stylized flow chart of project activities; back cover has a summary printed project description.

Format: 8 1/2 x 11 folded, illustrated, one color.

Item 9: Poster

Audience: General

Purpose: To draw attention to project.

Description: Below the same picture as on items 7 and 8, short phrases listing main purposes and features of project are listed below project name.

Format: 17 x 22 glossy poster.

Item 10: Applying for a PIP (Instructions)

Audience: District administrators applying for PIPs

Purpose: To explain the steps involved in applying for a PIP and to describe the various procedures available for obtaining funds.

Description: The contents and format of this item are still tentative. A typed and stapled draft will be prepared for use in autumn 1975 based on inputs from BSS, Title I, Title 3, and OPBE personnel. (See Item 13.)

Item 11: Budgeting Worksheets

Audience: District administrators applying for PIPs

Purpose: To permit an accurate estimate of the costs of starting and operating a PIP project.

Description: The worksheets will consist of a project budget with detailed line items. Each line item will include blanks for the total number of inputs required, the number which can be obtained at no cost, the number for which additional funds will be required, and the average cost per unit for the latter items.

Attached instructions will explain how to estimate the cost of each item and will provide estimates for those items which do not vary widely from area to area (e.g., materials and equipment).

Outline:

I. Staff: broken down by categories

II. Facilities:
- A. Space: office and instructional
- B. Furniture and fixtures

III. Equipment
- A. Major items costed separately
- B. Small items, grouped

IV. Materials/Supplies
- A. Nonconsumable
- B. Consumable

V. Transportation

VI. Technical Assistance

VII. Public Relations

Format: 3 single sheets, 11 x 17 folded, saddle stitched, one color.

Disseminating Agency Materials

The disseminating agency materials will include sections on PIP orientation and history, replication schedules, PIP application preparation and evaluation, budgeting, and project monitoring. It will also include a model of an information booklet to be provided to LEAs applying for PIPs.

Item I2: Disseminating Agency Manual

Audience: Government or other persons participating in the selection or monitoring of PIP sites, or in the dissemination of PIPs.

Purpose: To explain the PIP replication mechanism and materials, and to convey the intended role of the disseminating agency.

Description: A manual will be prepared in draft form for fall 1975 tryout. Finished materials will be developed in the spring of 1976 based on inputs from the tryout. The draft will be prepared in unillustrated, report format.

Outline:

I. History and Orientation

II. Replication Schedules

III. Application Preparation

IV. Application Evaluation

V. Budgeting Guidelines

VI. Monitoring of PIP Projects

Format: Draft, 8 1/2 x 11, stapled report, 50 pages.

Item 13: Applying for a PIP (Model)

Audience: Government or other persons participating in the selection or monitoring of PIP sites or in the dissemination of PIPs.

Purpose: To supplement Section III (Application Preparation) in the Disseminating Agency Manual. The model booklet will assist the agency official in preparing an information booklet for LEAs.

Description: The model is an unillustrated booklet describing the PIP dissemination mechanism, the procedures for obtaining a PIP (and related materials), and the regulations and restrictions that may be involved. The booklet may also explain how to obtain funding for the PIP project. This information will vary depending on the agency involved, and may be as specific as instructions on the use of previously committed funds for PIP replication, or as general as a list of state and federal agencies to contact for possible availability of funds.

Format: 8 1/2 x 11, saddle-stitched booklet, six pages.

Start-Up/Operation Materials

Project Director's Materials

The project director has ultimate responsibility for project operations. The director must plan, implement, and monitor operation of the entire project. Therefore a substantial package of materials is designated for the director's use. Each of items 14-18 (also 19 if elected and 20 in PTR) is a self-contained unit within the project director's package with instructions on use and purpose. The first four items in this group will be used throughout the project year; the final three are intended primarily for use in the training activities during start-up and the early stages of implementation.

Item 14: Project Management Directory

Audience: Project director (PD)

Purpose: To serve as guide for planning, implementing, and managing project.

Description: The Project Management Directory includes 14 sections in a looseleaf binder with tab dividers for each section. The front side of each divider has a section title, the back a section table of contents. The first page of each section lists essential outcomes at the top, with major tasks and dates at the bottom. All but the first section provide "do's and don'ts" with illustrations from the field test. Most sections include job aids (not indicated below).

Outline:

I. Overview.
   A. Project Overview
      An overview from the PD's viewpoint giving the basic project concepts, listing the major essential outcomes, and summarizing the PD's role

   B. PIP Description
      Overview of the total set of ASK/PIP materials, and illustrated guide to the PD Manual

II. Management Approach
   A. Project Philosophy/Roles
   B. Tasks of the PD
   C. PD technical and administrative skill requirements
   D. Project context requirements - reiteration of ASK
   E. Adapting to local conditions

III. Communication (Public Relations)
   A. Importance of PR with subsections describing what is needed for:
      1. School Board
      2. District Staff
      3. Principals
      4. Sending teachers
      5. Parents
      6. Community

   B. Description of PR package

IV. Instruction

A. General Approach
B. Classroom Environment
C. Scheduling/grouping of students
D. Testing
E. Record keeping
F. Use of materials/machines
G. Motivation
H. Staff roles in instruction
I. Summary of staff skills needed for these roles
J. Sequencing
K. Pacing

V. Materials/Equipment/Supplies/Tests/Facilities

A. Overview plus five subsections each covering:
B. Purpose (core/supplemental)
C. Ordering procedures and schedules
D. Distribution/arrangement
E. Costs

VI. Students/Selection

A. Intended Population
B. Selection Procedures
C. Role of selection in project

VII. Staff Selection

A. Staff roles summary
B. Recruiting techniques/materials
C. Selection criteria
   1. Skills
   2. Attitudes
D. Replacement
E. Substitutes

VIII. Staff Training (Summary of Training Module)

A. Preservice Workshop
   1. Goals (skills, attitudes, preparation of classrooms, etc.)
   2. Preparation, dates, content, approach
   3. Resources, special consultants required

B. In-service Training
   1. Goals
   2. Topics, techniques, schedules

IX. Staff Relationships

X. Budget

A. Basic program costs
B. Expenditure schedule: problems to anticipate
C. Roles of teachers in allocating funds

XI. External Assistance/Monitoring

A. Constraints of grant
B. Monitoring procedures
C. Who to call for assistance (grant/technical)

XII. Project Continuation

A. Planning the second year
   1. Issues to anticipate
   2. When to start

B. Operation after the first year

XIII. Index to Entire PIP

Evaluation Manual: summative and formative, keyed to funding agency requirements. (The evaluation section will be bound as a separate manual.)

A. Testing procedures
B. Data analysis
C. PD assessment of training sessions and project operation
D. Teacher/other staff/student questionnaire sampling

Format: 8.1/2 x 11 inches, 150 pages, illustrated, ring binder with PIP cover design.

Item 15: Materials/Equipment Package

Audience: Project director, teachers, other staff as relevant

Purpose: To give an overview of the materials/equipment needed to operate project, and to provide information on ordering.

Description: Following a general statement about the use of materials/equipment in the project, each piece is listed with the following information:

1. Name
2. Model or edition
3. Name and purchasing address of maker
4. Lead time normally required for delivery
5. Cost
6. Description
7. Purpose in project/justification
8. Special uses
9. Teacher comments
10. Number of units needed per lab/class

Format: loose-leaf bound, 8 1/2 x 11, 100 pages, unillustrated, three-hole punched (should be included in the Project Management Directory cover).

Item 16: Project Management Calendar

Audience: Project director

Purpose: To provide reinforcement of the project preparation and operation timetable for the project director.

Description: The calendar is bound separately from the Project Management Directory so that it can be affixed to the wall or carried by the director; each month is assigned five blank weekly sections with spaces for the date to be inserted; a task overview is provided at the beginning of the calendar.

Format: 8 1/2 x 11 inches, bound on long side.

Item 17: Orientation/Public Relations Package

Audience: Project director

Purpose: To provide the project director with materials with which to orient project and other school staff to the project and conduct community awareness programs.

Description: This package is composed of items 5 through 9 described above.

Item 18: Training Manual

Audience: Project director

Purpose: To clarify the purposes and methods of staff training and offer suggested agendae, activities for training.

Description: This manual gives a rationale for and describes the training activities needed for the project. The pre-service and in-service components of the total training program are dealt with separately, mirroring the structure training will take. Each staff member's role and consequent training needs are discussed as a unit. Methods for evaluating training and building in-service training units around problems are discussed.

Outline:

I. Introduction
   A. Importance of training to project
   B. Rationale of suggested format
      1. Preservice workshop: start-up tasks/skills
      2. In-service training: full implementation tasks/skills
   C. Organization of this manual (cross-referenced to Teacher's Manual)
   D. Use of this manual

II. Training Topics for Staff
   A. Description of each staff member's role
   B. Summary of skills needed

III. The Start-up Training Workshop: Suggested Mode and Environment
   A. Workshop atmosphere
   B. Programed behavioral learning units
      1. Simulation
      2. Role playing
   C. Interspersion of classroom preparation
   D. Suggested agenda and timeline

IV. The Start-up Training Workshop: Topics/Skills
   A. Project Teachers
      1. Set each topic/skill in context
      2. Training exercises
         a. materials needed
         b. activities
   B. Other Personnel
      1. Set each topic/skill in context
      2. Training exercises
         a. materials
         b. activities

V. In-service: Continuing Training
   A. Topics/Skills
      1. Set each topic/skill in context
      2. Training exercises
      3. Timetable/Indicators of readiness
   B. Suggested Formats

VI. In-service: Troubleshooting and Problem Solving
   A. Common Problems
      1. Indicators
      2. Using problems as in-service topics

VII. Training Evaluation
   A. Indicators of successful training
      1. Implicit
         a. observation
         b. staff relationships
         c. student behavior
      2. Explicit
         a. questionnaires
         b. other instruments

VIII. Summary
   A. Anticipated outcomes of training
      1. Efficient goal accomplishment
      2. Morale
      3. Things to look for
   B. Impact of effective training on PD role

IX. Training Materials List

X. Glossary

XI. Index

Format: 8 1/2 x 11 inches, 30 pages, illustrated, saddle stitched, three-hole punched.

Item 19: Training Videotape (HIT Only)

Audience: Project staff, general

Purpose: To give orientation to the project, particularly to its spirit and feeling.

Description: This videotape is a new idea for inclusion in the PIP. Its status is tentative at this time. If included, the tape would greatly increase the capacity of the orientation and early training materials to convey the spirit and essence of a project to teachers, and would explicitly show instructional procedures unfolding step by step. It will be designed to be used with the training manual.

Format: 3/4" color videocassette.

Item 20: Tape/Slide Training Presentation (PTR Only)

Audience: Tutors, tutorial supervisor

Purpose: To introduce tutors to the materials they will use and give them practice in their use.

Description: The tape/slide presentation is a self-paced activity-oriented "walk-through" of the tutoring guide and record documents the tutors use in tutoring students and keeping the detailed records necessary to monitor student progress; the presentation can be used by an individual tutor or with a group; the presentation script suggests points at which the tutor should turn off the projector and practice the skill just demonstrated, either alone or in a role-playing dyad with another tutor; the early sections of the presentation are very detailed and specific, while later portions are less so, relying on the tutor's growing familiarity with the materials to guide the practice work.

Outline:

I. Introduction to Tutoring Kit Materials

II. Making Tutoring Cueing Marks in Texts

III. Presenting the Lessons

IV. Marking Tutoring Session Record Forms

V. Marking Teacher/Parent Report Forms

Format: Color slides, cassette tape.

Teacher's Materials

Items 21 and 22 serve a dual function for the teacher. During the start-up phase they will be used as an integral part of the training program. Through the project year, teachers will refer to these materials for specific information or reminders of procedures. Separate items, they will be packaged together to be sure teachers receive both.

Item 21: Teacher's Manual

Audience: Project teachers

Purpose: To give detailed orientation to project; to be a planning and operational guide for project teachers.

Description: The teacher's manual consists of a general overview of the project and a discussion of the teacher's role and activities followed by detailed guidelines for accomplishing teacher tasks; the sections dealing with accomplishing teacher tasks are arranged sequentially as the tasks occur and each is followed, where appropriate, by training activities for the task-related skills.

Outline (Subject to variation to suit project-specific requirements):

I. Introduction

- A. Purpose
  1. Familiarize with project
  2. Be a resource document for year
- B. Overview of manual
  1. Description of contents
     a. narratives
     b. skill summaries
     c. training sections and related materials
        1) sequence based on use of skills in project
        2) keyed to project director's Training Manual
  2. How to use manual

II. History and Overview

- A. ESEA developmental funding
- B. PIP Concept
  1. Why
  2. What
- C. Project Overview
  1. Rationale - need addressed, history
  2. Goals
  3. Philosophy
- D. Narrative of fully operating project
  1. How project fits into school
- E. Summary of results project has achieved

III. You and the Project

A. Roles
   1. Major teacher tasks
      a. list
      b. narrative
      c. summary

B. Responsibilities
   1. Project duties
      a. teaching
      b. inservice meetings
      c. other meetings
   2. Accountable for
      a. teacher evaluation

C. Relationships
   1. Communication
      a. students
      b. project director
      c. project peers
         1) working as a team
      d. principal
      e. nonproject staff
      f. parents
         1) parent involvement
      g. visitors
      h. others
   2. What to expect from supervision
      a. project director
         1) in-service training
      b. principal
      c. other district administrators
      d. counselor

D. Attitudes
   1. Confidence
   2. Respect for different cultures

IV. Getting Ready

A. Narrative of preparation
   1. Activities of teacher up to getting kids

B. Summary of tasks involved

IV. (Continued)

C. Description of tasks
   1. Procedures for materials/equipment ordering and use budget
   2. Arranging classroom for instruction
      a. furniture
      b. materials and equipment
      c. displays
   3. Curriculum planning
      a. defining objectives
      b. keying materials to objectives
      c. lesson plans
      d. integrating curriculum into school
   4. Student identification land selection
   5. Student scheduling

D. Training exercises for appropriate tasks (vary from project to project)

V. Beginning Instruction

A. Narrative of first phase with kids
   1. Activities from assignment of students up to normal operation

B. Summary of tasks involved

C. Description of tasks
   1. Diagnosis
      a. criterion referenced tests
      b. other methods
   2. Assigning work/prescribing
      a. contract teaching
   3. Student grouping for instruction
   4. Presentation mode
      a. one to one
      b. small group
      c. lecture/discussion
      d. other (e.g., gaming/simulation materials)
   5. Teaching process.
      a. team teaching
      b. resource people
      c. other (e.g., field trip)
   6. Motivation
      a. rewards
      b. kids' confidence and other attitudes

D. Training exercises for appropriate tasks (e.g., contract teaching)

VI. Maintaining the Program

A. Narrative of fully operating project
   1. Classroom routine during operation

B. Summary of tasks involved

C. Description of tasks
   1. Monitoring instruction
      a. monitoring progress/activities
         1) keeping records
            a) student folders
         2) test results
   2. Adapting the program
   3. Expanding the program

D. Training exercises for appropriate tasks (e.g., keeping records)

VII. Common Problems/Troubleshooting

A. Narrative of typical problems
   1. Causes
   2. Symptoms
   3. Solutions/Coping

VIII. Winding Down (End of Project Year)

A. Narrative of end of year

B. Summary of tasks involved

C. Description of tasks
   1. Standardized testing
   2. Other evaluative methods
   3. Student records to be passed on
      a. recommendations
   4. Materials/equipment storage

D. Training programs for appropriate tasks (e.g., testing)

IX. Miscellaneous

A. Summer school

B. Calendar

C. Checklists
   1. In-service training
   2. Special events (awards, holidays, ceremonies)

X. Conclusion

A. Summary of skills

B. Pep talk - motivation

XI. Materials Directory

XII. Glossary

XIII. Index

Format: 8 1/2 x 11, 100 pages, illustrated, ring binder with PIP cover design

Item 22: Project-Developed Materials

Audience: Project teachers

Purpose: To provide teachers at replicating sites with models or descriptions of commercially unavailable materials developed at the exemplary projects.

Description: Materials are project specific. They include manuals, instructional games, and the like.

Materials for Other Personnel

Project Conquest and Programed Tutorial Reading involve additional staff members. Items 22, 24, and 25 are manuals for these project members. Their purpose and format are essentially the same as those of the teachers' manuals, and they contain all the information the users will need to fulfill their project roles.

Item 23: Conquest Counselor's Manual

Audience: Conquest counselors

Purpose: To explain the role of the counselor in Conquest and suggest useful counseling materials.

Description: The manual provides a brief introduction to Conquest, taken from the Teacher's Manual. A supplementary section is provided to elaborate on the counselor's role. A list of materials that have proven useful to Conquest counselors is included along with brief descriptions of the uses of these materials. No materials intended to provide professional training in counseling are included.

Format: 8 1/2 x 11, 20 pages, illustrated, saddle stitched.

Item 24: Conquest Nurse's Manual

Audience: Conquest nurses

Purpose: To explain the role of the nurses in Conquest and provide sample record-keeping forms for their consideration.

Description: The manual provides a brief introduction to Conquest, taken from the Teacher's Manual. A supplementary section is provided to elaborate on the nurse's role. A set of record-keeping forms used by Conquest nurses and brief explanations of the purposes of the forms are also included.

Format: 8 1/2 x 11, 20 pages, illustrated, saddle stitched.

Item 25: PTR Principal's Manual

Audience: Principal in PTR school

Purpose: To acquaint the school principal with PTR and delineate those areas in which the principal must get involved in the project.

Description: This manual provides the building principal with an overview of PTR and how it fits into the school and supplements and supports the instructional activities of the regular classroom teachers; it tells how the principal is to participate in the project as a supervisor of tutors.

Outline:

I. Introduction
   A. Overview of PTR
      1. Purposes
      2. Rationale

II. How PTR fits into the school
   A. Supplements and supports classroom teachers

III. How Principal is involved
   A. Facilities
   B. Tutor hiring
   C. Scheduling
   D. Tutor monitoring
   E. Community relations
   F. Relationship to tutorial supervisor

IV. Glossary

V. Index

Format: 8 1/2 x 11, 20 pages, illustrated, saddle stitched.

Appendix B

PIP REVISION RECOMMENDATIONS

Appendix B

PIP REVISION RECOMMENDATIONS

The revision recommendations in this section are presented at a general level to address the major, overriding difficulties that arose in the field test for each packaged approach. They are designed to supplement the revisions proposed in Chapter IV for all PIPs.

Project Catch-Up Revisions

Two major problems in certain Catch-Up replicating sites could best be solved in the ASK. These problems seemed to stem from the divergence between the rural, sparsely populated context of replicating sites and the urban, populous location of the exemplary site in Newport Beach. The problems--a lack of highly qualified, half-time staff, and a dearth of nearby publishers' representatives--relate to the lack of similarity between exemplary and replicating sites.

Replicating project directors could not find the staff they required. As a result, the quality of teaching was not always as high as it was in Newport Beach. Some personnel lacked the skills and confidence necessary to operate a teacher-based approach such as Catch-Up. The director of the exemplary project "buys" skills rather than trains for them. This is feasible in populous locations such as Newport Beach where the infrastructure supplies sophisticated and able teachers. It is often impossible in remote areas without a supply of qualified people to hire.

Further, an urban area attracts publishers who are eager to bring sample kits and conduct demonstrations. So many publishers approach teachers in Newport Beach that screening them becomes a problem. This was hardly the case in rural, remote Catch-Up replicating sites. While this problem can be partially solved after PIP delivery by supplying more information on materials, sites must be warned in the ASK that teachers will have to learn to use many kits on their own. In the past, this caused teachers distress and probably contributed to an

initially inefficient use of the materials. Continual changes in published materials make futile the packaging of detailed directions for their use. Advising sites in the ASK to consider their access to publishers and warning remote sites of potential problems are more practical solutions.

Site visitors found that the Catch-Up PIP apparently did not convey some aspects of the central mechanism of the project, since no replicating site personnel could articulate it clearly. In some cases, students were mechanically assigned half-hour periods of instruction—not assigned tasks and instructional periods flexibly according to their needs—and taught in ways that appeared tedious. Few teachers specifically mentioned meeting the individual needs of his or her "brood" of 18 students. Teachers were unaware of having a personal materials budget for buying games that might especially appeal to their students. There was little flexibility evident at the beginning of operation in the use of equipment or in encouraging students to choose activities.

The central mechanism, that is, providing adequate resources and time for qualified people to use those resources with a manageable group of students, did not seem to be completely clear. The concept of individual accountability for students' gains was somewhat threatening, so many teachers took group, rather than individual, responsibility for gains. This reduced the emphasis on seeing that their 18 students, one way or another, learned basic reading and math skills. Clearer descriptions of Catch-Up's vital integrated parts, and how they fit together, will be included in the revised ASK and PIP.

Another problem in some tryout sites was that the atmosphere was tangibly different from that in the Newport Beach labs. Missing was some of the sense of ease and fun evident in the learning situation in Newport Beach. This was probably influenced by teacher selection, but it seems clear that the PIP did not convey the way teachers interact with students to help them feel (and be) successful. The positive attitudes, so difficult to convey in writing and still photography, seem critical to Catch-Up's success. The medium of film could help solve this communication problem. When written about, the confidence, ease, and positive orientation of teachers sound like easy-to-ignore idealistic generalizations. Portrayed on film, however, the affective climate would be clear and directly appealing.

Certain teachers in replication sites seemed to operate with three students in much the same way they would with 30--in a didactic, authoritarian mode. A film might provide a vivid alternative, giving teachers an idea of how to act, not as typical classroom teachers but as more relaxed Catch-Up teachers. This would not be a training film with skill objectives, but a film with an affective orientation.

In addition to its direct appeal as a model, a film could clarify written materials and substitute for personal visits. So often after reading an entire PIP, the reader asked, "But what is the project really like?" Catch-Up is particularly elusive with its many flexible, intangible elements. A well-made film of instruction might go a long way in improving replications.

High Intensity Tutoring (HIT) Revisions

HIT replication sites had instructional and professional relationships problems that could be solved through PIP revisions and grade-level-matching problems that could be solved through use of a revised ASK.

HIT instruction at Highland Park was intense. The pace was fast, with tutors checking each response as it was made. Line-by-line programed materials lent themselves to accurate, immediate correction. One mark was entered on the tutee's score sheet for each correct response when the student made it, not after a series of answers. Tutoring itself lasted 20-25 minutes, probably as long as the intense, rapid pace could be maintained. This was all active time. Tutors came early and saw that folders were in place and that tutees were occupied with work at all times, whether tutors were obtaining new drill materials, teachers were taking roll, or visitors were present.

In contrast, instruction in some HIT replication sites was less intense. The pace was not as smooth or fast as it was at Highland Park. Tutors checked a whole page or even several pages after tutees completed them, and appeared bored while waiting. There was consequently more mischief, and occasions arose for teachers to correct tutors in front of the class. This detracted both from the tutor's role as a paraprofessional and from the brisk, businesslike atmosphere.

Substitute materials, used in place of Sullivan Programmed Readers, were standard workbooks. Tutors read instructions and then

waited for tutees to complete a page before checking the answer section in the teacher's manual. This detracted from the immediacy of a correct answer noted instantly and seemed to slow down the pace in general.

Tutors and tutees arrived at the centers at the same time and waited for roll call and for the teacher to pass out workbooks and folders. This contributed to loss of instructional time and to making the centers more like regular school occasions where there is a great deal of passive waiting. Time was also taken from one-to-one tutoring for group instruction and for pep talks on behavior.

Teachers and aides were often occupied in a tutoring role, since it was difficult to interest enough students in filling this position. This prevented the teachers from circulating through the room to answer questions or supply needed materials promptly. Teachers in the tutoring role also used a didactic, explanatory approach which prevented students from proceeding quickly. Aides were often involved with paperwork during instruction because sessions were scheduled one after another without time between them for completing paperwork.

These differences point out the need for fuller descriptions of the instruction which occurs in HIT and counterexamples to clarify how HIT is different from traditional schooling. Procedural issues such as scheduling can be clarified in printed manuals, but a training videotape of actual HIT instruction is also recommended to show the pace and sequence of tutoring.

Use of a videotape for training is proposed because the tutoring process is easy to copy if it is understood. Tutoring procedures can sound quite complicated in written descriptions, while a videotape training sequence can quickly and efficiently show the needed skills. Vidotape, as opposed to film, is recommended because it lends itself to use and review along with printed materials. No site used the 1974 PIP-proposed method of training themselves and tutors--modeling tutoring behaviors. A printed description of procedures accompanied by photographs did not convey what tutoring was like clearly enough so that project directors or teachers felt they wanted to try it personally or demonstrate it. Further written descriptions could improve replication but a videotape, with sound and moving pictures, would probably be much more efficient. Many site personnel stated that they would find such an audiovisual medium very helpful.

Professional relationships in HIT are designed to be "built-in"; the project director identified the two best-respected reading and math teachers in each school and convinced the principal to release them. Replicating site project directors asked for volunteers, did not assure teachers of tenure if they took a special projects job, and often hired staff new to the school. As a result, staff were not as well established in the school nor as skilled as desired. Scheduling was then carried out by administrators rather than by project and regular teachers, which took away a needed point of contact for staff. These problems can be described more fully in the ASK and PIP, with fuller descriptions of how recommendations on procedures relate to one another in obtaining favorable results.

HIT in Highland Park operates in the sixth, seventh, and eighth grades. Eighth graders enjoy the social role of tutoring, and sixth and seventh graders look forward to becoming tutors. Implementing HIT in a high school proved difficult; tutors could not always be found. A second problem of high school tutees was that their reading and math abilities were too advanced for the materials HIT supplies. By the end of the year many had completed all the books available. These problems could be addressed in a revised ASK.

HIT is a straightforward, structured program. A revised ASK and PIP, particularly a set of materials including a training videotape showing instruction, should lead to more effective replications.

Conquest Revisions

At least two of the three Conquest sites have replicated the project with reasonable accuracy. There are, however, a number of revisions that would appear warranted on the basis of field-test inputs: The first is the revision of the configuration of clinics and reading rooms recommended in the PIP. The exemplary site is a large school district and has Conquest facilities in approximately 20 locations. It is clearly not feasible to replicate on this scale during the first year of a new project, so a reduced configuration was recommended by RMC. This configuration consists of a combination clinic/reading room in one school with satellite reading rooms in two additional schools, and was chosen to reflect the proportion of reading rooms to reading clinics in the exemplary site. It now appears, however, that a more satisfactory configuration for the first year would comprise two reading clinic/reading room combination units with no satellite reading rooms. The reason for this arrangement is that reading clinicians are expected to have at least one year of experience working under the supervision of a supervising clinician before teaching in a separate reading room or clinic. Supervising clinicians teach only in the reading clinics (designed for fourth through sixth graders) and, in the field-test sites, found it difficult to help the regular clinicians in satellite rooms. The newly recommended configuration would permit the regular clinicians to work with a supervising clinician during the first year. Then, when expansion of the project was undertaken, they would be prepared to start new reading rooms and clinics.

A closely related source of confusion has been the role of the supervising clinician. Additional emphasis in the PIP needs to be placed on the teaching responsibilities of supervising clinicians, and their supervisory duties should be clarified. The above revision to the laboratory configuration should also eliminate much of the confusion as to how the supervising clinician can supervise regular clinicians while also carrying a teaching load.

Two areas of confusion have been encountered in the establishment of clinic or reading-room operations. The first involves the diagnostic testing process. In the exemplary site it appears that this process plays an important role in establishing a relationship with the child, and in the interactions with the regular classroom teacher. These aspects of the process should be explained in the PIP. Replicating site staff have also expressed some dissatisfaction with the particular tests used in the process, and have suggested instruments more appropriate in their own districts. A careful review of the instruments involved should be undertaken so that reasonable alternatives can be suggested in the PIP. In any case, the testing procedure must be clearly described in the ASK so that sites will understand that it is a central part of the project before committing themselves.

The second issue relating to operation of the project concerns the general atmosphere of day-to-day instruction. While a considerable effort was made in writing PIP materials to describe the atmosphere, the attempt has proven to be not entirely successful. Perhaps the major issues are the use of carrels to create an orderly environment,

and the use of a programed reading kit to help in organizing the student's time. A clear explanation of these issues should encourage more accurate replication. Some additional improvement can be expected when specific items questioned by the sites are clarified. It also appears that film or videotape would be a substantial help in conveying the feeling and the procedures of Conquest instruction.

A number of additional related issues must also be addressed. Examples are: (a) the level of students for whom the project is intended requires clarification; (b) some sites expressed the desire to release students in mid-year if they appeared to make adequate gains. Reasons for not releasing students in mid-year were listed by RMC and distributed to the sites by USOE. These reasons should be explained in the PIP; (c) some confusion has been expressed as to the kinds of classroom records and folders that should be kept. While the details of record keeping do not appear to be central to project effectiveness, a satisfactory record-keeping system would be a big help to teachers in the early stages of operation, and all ambiguity in the PIP should be eliminated.

Finally, the Conquest PIP supplies manuals for several auxiliary project personnel (e.g., nurse and counselor). Although it was not anticipated that these personnel would be under the direct control of the Conquest project director, it was felt that they might find some of the procedures used by their exemplary-site counterparts of help, or at least of interest. The manuals were also intended to provide them with a sense of their importance to the project. The

manuals have been received with reactions varying from enthusiasm to rejection. It appears now that additional emphasis on the fact that use of the materials is not a project requirement but that the materials are merely supplementary information to be used or not, as desired, should eliminate most of the negative reactions.

IRIT Revisions

The replication of IRIT has been generally quite successful. The major problems expressed by the sites have been lack of information on the exact lesson content, and the need for more exact lists of required instructional materials. Materials lists should be improved as described under the materials/equipment revisions. Defining the teaching areas is a problem specific to IRIT.

The basic philosophy of the IRIT project is to get highly skilled reading teachers and to give each teacher freedom to apply his or her skills. Teachers are supported by the project director, who is also an expert reading teacher, and each teacher is constrained to emphasize one of three areas: decoding, vocabulary and comprehension, or individualized reading. It was assumed in developing PIP materials that teachers qualified to teach in IRIT would want only broad guidelines defining their areas. The PIP thus describes the three areas in a general way and provides sample lesson plans from the exemplary sites for each area.

While these materials may have been adequate to provide qualified personnel with the information they needed to replicate the IRIT project, in the context of the field test they have not been entirely adequate. The orientation of the field-test sites has been to view the PIP as a set of regulations. While, at the exemplary site, each teacher interpreted her assigned area in her own way, the field-test site teachers were uneasy about making mistakes or doing something wrong. Like most problems, this was aggravated by the lack of start-up time which prevented an orderly assimilation of project concepts. Discussions with the replicating

teachers have pinpointed their sources of confusion, and it should now be possible to describe the three areas less amhiguously. The PIP should continue to emphasize the individualistic nature of the project, but at the same time it should include a more detailed set of lesson plans from the developer site.

The most widely overlooked or ignored IRIT feature was the mechanism for interaction with sending teachers. Although the PIP emphasized the importance of this feature repeatedly, it was not replicated closely. The revised PIP should point out this fact and describe the consequences of failing to establish this mechanism. It should also provide for a major training session during the preservice workshop so that IRIT teachers can practice for the first crucial meeting with sending teachers.

Another problem area concerns team autonomy. The exemplary site has four teams supervised by one project director. Her policy is to give teams as much autonomy as possible, and this is a major contributor to team morale. In the replicating sites, project directors have only one team to supervise, and are highly involved in team activities. This situation is probably natural during initial operations, but the PIP should be revised to explain the importance of phasing out this involvement as the project develops.

The number of schools to serve also caused some problems. For a variety of reasons it is desirable to have all 45 students in a given cycle come from a single school. This should be made clear in the ASK, and should be reemphasized in the PIP.

The third point concerns grouping of students. While the exemplary site (and the PIP) recommended heterogeneous grouping, at least one site grouped students homogeneously for the first cycle. This created problems with availability of materials, which should be explained in the PIP.

PTR Revisions

Visits to the PTR sites during the early stages of the field test revealed that few problems in getting the project into operation occurred. The few problems that did arise indicated that revisions were needed basically in the materials/equipment module. The major recommendation was to update the Materials/Equipment Module each year to reflect the current status of the availability of tutoring kits. This recommendation was made on the basis of the difficulty one PTR site had in procuring the Ginn materials. This delayed the start of PTR until January and students were not able to start in the basal series until a still later date because of the difficulty level.

Other recommendations for revision noted on the basis of feedback from the earlier site visits included clarifying the mechanism for moving children in and out of the program, and stating a rationale for parent involvement. Recommendations were also made for including alternative mechanisms for getting parents involved, especially since those recommended in the PIP did not appear successful.

Field-test data collected during the later site visits revealed that an additional revision was needed to the PTR package. Sites appeared to understand the tutoring process, and little difference was observed between replicator sites and the exemplary site in these processes. The problems were noted mainly in the overall supervision of the tutors. In both PTR sites, supervisors had difficulty establishing and maintaining good relationships with the classroom teachers. Teachers did not appear interested in the PTR program or in the progress

reports completed each week by the tutors. In one instance tutors were absolutely unwilling to listen to the suggestions of the tutorial supervisor.

Some of the problems mentioned above are directly related to lack of orientation for the teachers on the PTR project, and in one site to the fact that the tutorial supervisor was not a certified teacher. It is now clear that the role of the tutorial supervisor is much more critical than specified in the PIP. It is therefore recommended that a supervisor manual be included as part of the package. This manual should contain a description of the supervisor's skills and roles, and procedures for monitoring tutoring, reporting pupil progress, conducting in-service training, and maintaining public relations. Directly related to this topic, it seems critical to recommend that teacher judgment be exercised in selecting students for participation in the PTR program, since in one site teachers were annoyed that their opinions were ignored. The original PIP did not clearly state in the Project Management Directory the importance of involving teachers in selecting students. The rationale for involving teachers in the selection process should be stated in both the project director's materials and in the supervisor materials.

A final recommendation is that the tutor tape/slide training presentation be segmented into sections dealing with one item program each. During site visits, it was observed that a few tutors executed one item program completely while performing another haphazardly. By segmenting the tape/slide presentation, it would be possible to have

individual tutors review only the portions of the training relevant to the item program needing practice. In addition, it would be possible to individualize the training more effectively by presenting portions of the total tape/slide presentation separately.

A revision recommendation on which it is not possible to act deals with the availability of the Alphabet Skills Booklet. Replicating sites had difficulty obtaining this booklet, but felt it is a vital component. However, the PTR developers are unwilling to allow its inclusion in the PIPs they feel it is not necessary, to the great frustration of replicators. Since the Alphabet Skills Booklet is thus not available, perhaps the PIP should recommend that children be withheld from the project until they have acquired the necessary readiness skills.

R-3 Revisions

The major revisions recommended for the R-3 package as a result of the initial site visits were (1) to clearly explain how to incorporate the gaming/simulations (G/S) materials into the existing curriculum and (2) to include all the G/S materials in the package to expedite quality control and promptness. Other recommendations included inserting a full discussion of the rationale of the type of staff and materials needed (especially classroom carpeting) and more detailed information on how to teach in the project.

As a result of the final visits to the four sites and a more direct focus on the instructional approach, it seems obvious that a curriculum resource person is needed as part of the overall management mechanism. Such a person was available to the exemplary site during the validation of the project, but was thought to be a nonessential role for packaging purposes. In all R-3 sites with the exception of one, a large percentage of the project director's time was spent serving as a curriculum resource person. In addition, little coordination among the three curriculum areas (reading, math, and social studies) occurred because most project directors were not skilled in the area of mathematics and social studies, or they had no idea how to integrate the three areas. The reading classes appeared to be their stronghold, and these classes were better equipped and organized in instruction than either the math or social studies classes.

It is anticipated that once the project director and personnel become familiar with the concept of gaming/simulations, with the ways games and simulations are integrated in all three areas, and with

the ways gaming/simulations can be adapted to the existing school curriculum, the role of the curriculum resource person will not be needed. Cadre staff, once trained, would serve as resource persons to incumbent staff. The rationale for having cadre persons (other than to reduce class size) therefore needs to be clarified in the PIP.

All four sites appeared to understand what the main features of the R-3 project were. However, all but one incorporated the main features of contracts, diagnostic prescriptive teaching, and gaming/simulations into the curriculum in a manner that differed from what was originally intended in the PIP. Two of the sites assumed that the G/S activities were to be used in social studies, while contracts were to be used in math, and the diagnostic prescriptive approach was to be used in reading. One site assumed that the games and simulations materials were to be used as the entire social studies curriculum until mid-year, when the social studies teachers insisted that textbooks be brought back into the classroom and that the G/S materials be used to motivate and reinforce textbook learning. All of these misconceptions support the need for additional teacher training materials on how to teach, as well as additional project director materials for providing in-service training.

In all but one site, staff relationships and nonproject personnel relationships were achieved as intended in the PIP. It seems essential that caution he used in selecting the project director and in assuring that the project director be given autonomy during the selection/adoption stage. It is recommended that this issue be stressed in the ASK materials and be a central issue in the monitor's manual.

Appendix C

LEVEL "A" MODEL OF THE PIP REPLICATION MECHANISM

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LEVEL "A" MODEL OF THE PIP REPLICATION MECHANISM

This appendix outlines the Level A model (general to all six PIPs) of the intended PIP replication mechanism. The major outline headings for personnel, other resources, and students are:

Selection/Adoption Outcomes

Start-up

(New) Inputs

Processes

Outcomes

Operation

(New) Inputs

Processes

Outcomes

Personnel

Selection/Adoption

Intended Outcomes

I. Project Director

A. Roles and related issues

- Project Director involved in and identified in grant application
- Project Director given authority/autonomy to operate project including hiring, budget, methodology
- Project Director has district job appropriate to PIP role, and released for part-time project work during spring Start-up
- Project Director given optimal time during right period for planning project

B. Skills/Characteristics

1. Technical qualifications (PIP specific) of Project Director
   - Subject matter/methodology skills
   - Testing skills
   - Teacher training skills
   - Materials knowledge (for ordering and using)
2. Administrative qualifications of Project Director
   - Is a self-starter, will provide project driving force.
   - Has working knowledge of district channels and procedures, capability to expedite hiring staff, ordering materials, and make other arrangements.
   - Has professional and personal respect in district, assertive personality, effective PR skills, personal friendships/contacts among district teaching and administrative personnel, appropriate socio-ethnic background for district.

3. PIP knowledge

. Can explain main project features as described in the ASK materials.

C. Attitudes

. Desires to replicate PIP-project rather than apply professional skills to changing or improving it (based on understanding that the project is one of a few demonstrated successes in the country).

. Welcomes challenge of a personally difficult task; has no illusions of the PIP doing the Project Director's work.

II. Project Personnel

A. Roles and related issues

. None specified prior to Start-up.

B. Skills/Characteristics (PIP specific)

. Pool of potential personnel in each PIP-specified category. May include master teachers, teachers, aides, tutors, counselors, nurses. Some PIPs specify personality requirements, socio-ethnic match, etc.

C. Attitudes

. Acceptance of project approach/methodology/instructional strategy.

. Acceptance of PIP concept, i.e., changing the status quo by replicating a project developed elsewhere.

III. Non-project Personnel

A. Roles and related issues

. District hierarchy not adversely affected by PIP grant.

. PIP project viewed as relatively autonomous. Grant not seen as supportive of pre-existing projects or school district in general.

B. Skills/Characteristics

. Relevant district personnel (School Board, administrators, principals, etc.) can describe PIP project at the level of the ASK materials and state how it will impact their areas of responsibility.

C. Attitudes

- Relevant district personnel accept federally funded projects.
- Relevant district personnel accept the remedial approach specified in the PIP.

Personnel

Start-Up

Intended (New) Inputs

I. Project Director

A. PIP

1. PIP information (PIP-specific)

. All P.D. activities and tasks listed under "Start-up Processes" are described in terms of the basic steps, the intended outcomes or objectives, and timing considerations.

2. PIP self-training materials

. Project-specific or unusual task descriptions include procedures on how to accomplish tasks, techniques used by the developer site, P.D., etc.

. No programmed or similar learning materials are included for use by the P.D. (except for Programmed Tutorial Reading). It is assumed that the P.D. has the required basic skills.

3. PIP job aids

. PIP PR materials and special P.D. orientation materials are intended to orient the P.D. during Selection/Adoption.

. Calendars are included in PIP for use by the P.D. and are intended to help the P.D. plan project activities

. Sample forms, memos, etc. from the originating site are included in the PIP and are intended to be adapted or adopted for use by the P.D. (Inclusion of forms depend largely on availability from the originating site)

B. Technical assistance

. PIP-specific consultants for staff training, etc.

. USOE provides limited, PIP-consistent answers to P.D. questions

C. Money

. Adequate funds to pay P.D. at local pay scale

D. USOE and other government constraints

. OE or other agency monitors P.D.'s monthly progress reports. Encourages P.D. to maintain schedule and replicate accurately without treating PIP as a legal contract.

. OE prevents P.D. from contacting originating sites.

. State and local restrictions are consistent with project requirements.

. OE imposes evaluation requirements and criteria.

E. (Field-tryout inputs)

. None intended

II. Project Staff

A. PIP

1. PIP information (PIP-specific)

. Provides descriptions of basic tasks for all project personnel and procedures to use for accomplishing the tasks.

2. PIP self-training materials

. Project-specific or unusual task descriptions include procedures for accomplishing tasks, techniques used by developer site teachers, aides, and other personnel.

. Programmed learning materials are included for use by PTR tutors.

3. Job aids

. PIP PR materials and special materials for orienting staff are included for use by the P.D. for orienting staff during Start-up.

. Calendars are included for use by teachers (and/or aides in some projects) to help staff plan classroom activities.

. Sample forms for teachers, principals, aides, and other staff, teacher-made materials and other classroom aids are included in the PIP and are intended to be adopted or adapted for use by staff (Inclusion of sample classroom aids depended largely on availability from the originating site).

B. Technical assistance

. None directly to project staff except PIP-specific consultants.

C. Money

. Adequate funds to pay appropriate staff at local pay scale.

D. USOE and other government constraints

. USOE requires adherence to PIP-specified hiring guidelines.

E. (Field-tryout inputs)

. None inteneded.

III. Non-project personnel

A. PIP

1. PIP information (PIP-specific)

. All activities and tasks for non-project personnel listed under Start-up Processes (e.g., orientation, scheduling) are described to the P.D. for supervision and coordination of the task or activity.

2. PIP self-training materials

. Project-specific or unusual task descriptions for non-project personnel are described for the P.D. who supervises or coordinates the task(s).

. No programmed or similar learning materials are included for use by non-project staff.

3. PIP job aids

. PIP PR materials and special orientation materials are included in each PIP to orient school administrators, parents, and other non-project personnel.

B. Technical assistance

. None intended.

C. Money

. None intended.

D. USOE and other government constraints

. USOE encourages district officers to cooperate in replication.

E. (Field-tryout inputs)

. None intended.

Personnel

Start-Up

Intended Processes

Start-up tasks and/or activities designed to ensure installation of operational project (appropriate roles, skills/characteristics, and attitudes in personnel).

I. Project Director

A. Establishing roles, and related issues — Time

- P.D. hires staff to establish appropriate authority — PIP specified amount of time but prior to opening of school in fall.
- P.D. controls budget
- Successful completion of Start-up tasks leads to continued positive attitude toward project

B. Selection processes: None, Selection completed before Start-up begins.

C. Training (for central P.D. skills/tasks) — One week scheduled for self orientation followed by presentation of newly learned information to district personnel.

1. PIP-use
   - Self orientation to PIP and Project through Component 1 materials
2. PR: No training
   - PR materials provided in Component 1
3. Scheduling: No training
   - P.D. follows Project Management Calendar charts
4. Facilities/space arrangements — Time for arrangements, ordering, and hiring provided in the spring.

- No training; description of requirements provided

5. Materials ordering
   - No training; lists of materials and information sheets provided
6. Staff selection and hiring
   - Staff qualifications listed (some PIPs describe ways of finding the appropriate staff)
7. Staff training; (PIP-specific) Time provided during the summer to plan and prepare the Preservice Workshop.
   - All PIPs describe skills staff members must learn; some provide teaching suggestions and/or aids (e.g., PTR tape-slide)
   - Basic training mechanism described in PIP is the Preservice Workshop
8. Student selection; (PIP-specific) Timing is PIP-specific. Some projects have spring student tasks.
   - Instructions in each PIP
9. Budgeting: No training
   - Monthly budget sheets in Calendar
10. Other skills
    - Organization of parent involvement etc. (PIP-specific)

II. Project Personnel

A. Establishing roles — Timing is PIP-specific
   - PIP-specific mechanism for establishing roles (e.g., P.D.

involves teachers in selection of aides for R-3)

- P.D sets tone for establishing roles

B. Selection processes

1. P.D. recruits according to staff specifications and qualifications in PIP — Recruiting done in spring when personnel are available.
2. P.D. orients principals and administrators to enlist cooperation in recruiting
3. P.D. conforms to district hiring regulations
4. P.D. uses PIP orientation materials to attract staff candidates
5. P.D. offers attractive positions in terms of salary and tenure

C. Training processes

1. Introduction to project via P.D. presentation using PIP brochures, filmstrip and tape — Introduction in spring before rumors begin and before fall job commitments are final. PIP provides enough time to absorb new concepts.
2. Training in project skills
   - PIP-specific processes: Basic mechanism is Pre-service Workshop (except for R-3); continues with inservice — Workshop begun after all personnel, material, and facilities are available, but before school starts in fall. Typically two weeks scheduled.
   - Organized by P.D. (with help of her senior staff in some projects)

III. Non-project Personnel

A. Establishing roles	
. PIP-specific mechanism for establishing roles	Timing is PIP-specific
. P.D. sets tone for establishing roles with non-project personnel including principal and others	Early spring shortly after aware of PIP contract
B. Selection processes	
. None	
C. Training processes	
. Introduction to project via P.D. presentation using PIP brochures. filmstrip. and tape	Introduction in spring before rumors begin and before job commitments are final.
. Interaction with school personnel specified (conferences, meetings. etc.)	
. Orientation/PR for parents in the form of conferences, suppers, etc.	

Personnel

Start-Up

Intended Outcomes

I. Project Director

A. Roles and related issues

. P.D. has authority and respect of staff.

B. Skills/Characteristics

1. Technical qualifications (PIP-specific) of P.D.

. P.D. demonstrates all PIP-specific skills/tasks

2. Administrative qualifications

. P.D. continuously demonstrates effective administrative qualifications by successful execution of PIP-specified management tasks.

C. Attitudes

. P.D. expresses confidence in project and staff.

II. Project Personnel

A. Roles and related issues

. Staff roles established as per PIP specifications.

B. Skills/Characteristics

. Project personnel can effectively answer questions about the program philosophy, instructional procedures, and anticipated classroom operations.

C. Attitudes

. Project staff expresses enthusiasm about replicating the project.

. Project staff expresses confidence in being able to implement program.

III. Non-project Personnel

A. Roles and related issues (PIP-specific)

B. Skills/Characteristics

. Non-project staff can effectively communicate the goals of the project to others.

C. Attitudes

- Non-project personnel express enthusiasm about having the project in their school.

Personnel

Operation

Intended (New) Inputs

I. Project Director

A. PIP

1. PIP Information (PIP-specific)

. All PD activities and tasks listed under "operation"

2. PIP self-training materials

. Project-specific or unusual task descriptions

3. PIP job aids

. PIP inservice training materials

. Calender for operation phase of project

. Sample forms and memos from originating site

. Information on curriculum materials

B. Technical Assistance

. PIP specified consultation

. Local evaluation

. Publisher's representatives

. Training speakers

. Contact with originating site as needed (site-specific)

C. Money

. Sufficient funds allocated appropriately for project operation

D. Monitoring (U.S.O.E. constraints)

. Federal, State, and local governmental contacts

. Field evaluation (or other contractual monitoring) contacts

II. Project Staff

A. PIP

1. PIP Information (PIP-specific)

. Descriptions of basic tasks for all project personnel and procedures to use for accomplishing the tasks for project operation

2. PIP self-training materials

. Procedures for accomplishing tasks, techniques used by developer site staff

3. Job aids

. PIP "original art" materials for use as models of teacher-made instructional materials and of motivational decorating ideas.

. Calenders are included to assist project staff in planning classroom instruction and management

. Sample forms for project staff to use or modify for reports, letters, etc.

B. Technical Assistance

. PIP-specific training consultants

C. Money

. PIP-specific budget for instructional materials, rewards, summer programs, etc.

D. Monitoring (U.S.O.E. constraints)

. Classroom observation and interviews by government agency representatives

E. Field test staff or other contractual monitors

. Classroom observation interviewing

III. Non-project personnel

A. PIP

1. PIP information (PIP-specific)

. All activities and tasks for non-project personnel listed under Operation Processes (e.g., Professional Relationships) are described to the P.D. or staff for supervision and coordination of the task or activity.

2. PIP self-training materials

. Project-specific or unusual task descriptions for non-project personnel are described for the P.D. who supervises or coordinates the task(s)

. No programmed or similar learning materials are included for use by non-project staff.

3. PIP job aids

. PIP PR materials are included in each PIP to present the project to community groups, parents, and other non-project personnel.

B. Technical Assistance

. None intended

C. Money

. None intended

D. Monitoring (U.S.O.E. or other government constraints)

. U.S.O.E. encourages state and local officers to cooperate in replication

E. (Field Tryout Inputs)

. (Interviews and Questionnaires)

Personnel

Operation

Intended Processes

Operation tasks and/or activities designed to insure replication of project (management and instruction).

I. Project Director

A. Maintaining roles and related issues

- PD utilizes PIP-prescribed management style (e.g. trouble-shoots, maintains communication with staff, supervises, etc.) leads to continued authority structure
- PD successfully completes Operation tasks leads to continued positive attitude toward project director

Tasks are performed with PIP-specified intervals and duration

B. Selection processes: None, selection completed before Operation begins (unless replacement of PD becomes necessary)

C. Training (for central P.D. skills/tasks)

1. PIP-use
   - PD refers to PIP as needed to answer questions
   - Follows instructions for use of PIP materials (e.g., uses monthly Management Checklists)
   - Uses PIP job aides and reference material (e.g., handouts for in-service training, memos, film-strip(s), etc.)

2. PR (Parents, Community Groups, Board of Education, Principals) . P.D. uses and modifies job aides provided in components one and two . P.D. performs PR tasks as specified in PIP (e.g., organizes parent advisory board)	Tasks are performed with PIP-specified intervals and duration
3. Scheduling . P.D. uses PIP information on scheduling students . P.D. follows Project Management Calendar	
4. Materials ordering . P.D. uses lists of materials and information sheets . P.D. follows PIP instructions on ordering	
5. Staff selection and Hiring for next school year and for replacing staff. . P.D. uses staff qualifications (some PIPs describe how to form a training) . Some PIPs describe how to form a "pool of potential staff"	
6. Staff training . P.D. uses lists of staff skills described in PIPs . P.D. uses PIP descriptions of content and procedures for planning in-service training	

7. Student selection
   - P.D. uses instructions in PIP for replacing students

8. Budgeting
   - P.D. uses monthly budget sheets and descriptions of procedures for managing budget

9. Monitoring classroom activities
   - P.D. uses monthly progress checks, etc. from teachers as a monitoring device
   - P.D. uses PIP descriptions about visiting classrooms, obtaining reports from supervising teachers, etc.
   - P.D. uses all PIP descriptions of classroom procedures (Student Relationships Album, Filmstrip, Classroom Management Directory, etc.) to establish criteria for monitoring

10. Conducting summative evaluation
   - P.D. uses PIP instructions on compiling student test results

11. Conducting formative evaluation
   - P.D. uses project descriptions throughout PIP to formulate judgments about how the project is progressing
   - P.D. uses descriptions of in-service sessions, teacher

Tasks are performed with PIP-specified intervals and duration

evaluation meetings, etc. to plan constructive feedback for improving the project.	Tasks are performed with PIP-specified intervals and duration

12. Planning for subsequent year
    - P.D. uses PIP materials (including Start-up materials) for planning subsequent year's operation

II. Project Personnel

A. Maintaining roles
- PD uses PIP-specified mechanism for maintaining roles (e.g., PD involves staff in making project decisions, keeps staff informed, directs staff through lead teacher)
- PD models desired professional relationships
- Project staff follow Professional Relationships Album guidelines in maintaining roles

B. Selection Processes
- P.D. replaces staff as needed using staffing procedures described in Start-up
- P.D. recruits and interviews candidates for staff positions for subsequent year's operation.

C. Training processes

1. P.D. or lead teacher conducts in-service training on project instructional and management skills, and on attitudes

2. Project staff uses PIP materials to learn instructional and management skills, and attitudes	Tasks are performed with PIP-specified intervals and duration
III. Non-project Personnel	
A. Maintaining roles	
. PIP-specified mechanism for maintaining roles (e.g., P.D. attends teacher's meetings)	
. P.D. sets tone in maintaining roles (e.g., cooperates with principals)	
. Project staff follow Professional Relationships Guide in maintaining roles with non-project staff	
B. Selection process	
. None	
C. Training processes	
. Introduction to project (for personnel not present during start-up) via P.D. presentation using PIP brochures, filmstrip, and tape	
. P.D. and staff interaction with school personnel as specified in PIP	
. Orientation/PR for parents in the form of conferences, suppers, etc.	

Personnel

Operation

Intended Outcomes

I. Project Director

A. Roles and Related Issues

. P.D. has authority and respect of staff

. P.D.'s Channels of Communication well established (within project and district)

. P.D. has job security

B. Skills and characteristics

1. Technical qualifications of P.D.

. P.D. demonstrates expertise in all PIP-specific skills/tasks during project operation

- Selection of students to match program goals
- Logistics (e.g., arranging space, scheduling students, managing time)
- PIP-use
- Subject area (e.g., reading specialist)
- Materials/equipment
- Methodology (e.g., gaming/simulations)
- Training

2. Administrative qualifications

. P.D. demonstrates expertise in carrying out PIP-specified administrative tasks during operation

- Staffing
- Public Relations
- Management of Budget
- Monitoring of instruction
- Program evaluation (formative and summative)
- Planning for subsequent year

C. Attitudes

. P.D. expresses confidence in her role as director

. P.D. expresses confidence in her staff and in the project's success

. P.D. expresses acceptance of program philosophy, and goals

. P.D. is supportive of and has appropriate attitudes toward project and non-project staff

II. Project Personnel

A. Roles and Related Issues

. Roles played by each staff member are appropriate

. Channels of communication among staff (project and non-project) are well established

B. Skills/Characteristics

1. Project personnel effectively demonstrate instructional skills in

- Testing
- Diagnosing students
- Prescribing student work (e.g., contracts)
- Using materials, equipment, games, etc.
- Selecting students
- Grouping students (e.g., small groups, heterogeneous groups, across grade pairs, etc.)
- Using appropriate presentation mode (e.g., lecture, demonstration, inquiry approach)
- Using appropriate motivational system

2. Project personnel effectively demonstrate classroom management skills in

- Arranging the learning environment (materials. furniture, bulletin boards, etc.)
- Maintaining student records
- Scheduling students
- Scheduling equipment use
- Scheduling student activities (e.g., trip days, game days, counselor's day, etc.)

3. Project personnel effectively demonstrate other management skills in
   - Planning non-classroom activities (e.g., trips, magic shows, etc.)
   - Curriculum planning (developing units, etc.)
   - Public relations (parent meetings, school assembly presentations, etc.)

C. Attitudes

. Project staff express confidence in carrying out their roles/tasks

. Project staff express confidence in director, in other project staff

. Project staff demonstrate PIP-specified attitudes toward students (e.g., success orientation)

. Project staff expresses acceptance of program philosophy and goals

. Project staff are supportive of and have appropriate attitudes toward non-project staff

. Project staff are supportive of and have appropriate attitudes toward <u>other</u> project staff

III. Non-project Personnel

A. Roles and related issues

. Channels of communication with project staff are well established

. Non-project personnel view project teacher as resource person(s) (PIP specific)

B. Skills/Characteristics

. Non-project personnel effectively communicate the goals and methods of the project to others

. Non-project teachers can identify students in their class who should participate in the program

. Non-project teachers and principal can coordinate the existing school program with special project activities (e.g., do not require make-up homework, do not require students to work during recess, etc.)

C. Attitudes

- Non-project personnel express enthusiasm about having the project in their school
- Non-project personnel view students as being more successful (e.g., getting better grades, having more potential for learning, etc.)
- Non-project staff are supportive of and have appropriate attitudes toward project staff (e.g., express confidence in project staff)

Other Resources

Selection/Adoption: Intended Outcomes

I. Materials

A. Availability

- PIP-specified instructional materials, equipment, and supplies available from publishers or district

B. Adequacy

- Available materials, equipment, and supplies are adequate according to PIP specifications

C. Acceptability

- District and/or participating school(s) agree to use PIP core and supplementary materials in PIP specified manner

D. Related systems

- District or school ordering and processing system permit delivery of PIP materials on schedule
  - District or school channels for approval of orders including making minor budget adjustments are not in conflict with PIP
  - District or school procedures of making inventories and/or eliciting bids on materials are not in conflict with PIP
  - District or school policies regarding use of budget early in year are not in conflict with PIP

II. Facilities

A. Availability

- Appropriate classroom space (e.g., does not require taking teacher's lounge or kindergarten), available in district, or portable space available to purchase.
- Desks, chairs, blackboards, etc. available
- Office space in appropriate location for P.D. and secretary available

B. Adequacy

. Classrooms, desks, chairs, tables, carpeting, and other facilities are adequate according to PIP specifications

C. Acceptability

. District and/or participating school(s) agree to use facilities as specified in PIP

D. Related systems

. District management system for allocating facilities are not in conflict with PIP

Other Resources

Start-Up

Intended (New) Inputs

I. Materials

A. PIP Inputs

1. PIP information (for selecting and purchasing required materials)

- Core materials are clearly distinguished from supplementary materials.
- Information clearly distinguishes supplies from equipment for line item changes
- Non-conflicting information is stated
- Information indicates grade level for which materials were designed, subject categories, quantity (per student, per classroom, or per school), edition, etc. for beginning operations
- Information on how to find hardware/software items in catalogues is clear
- Adequate number of brochures which describe each item are contained in PIP
- Each item is classified as a book, film, kit, reference book, etc.
- Special use of materials in project is described; teacher comments indicated (e.g., book designed for teachers or students)
- Information sufficient on which materials are consumable, which are not

2. Sample materials

a. Materials designed by developer site

- Have clear directions for using
- Are complete or have directions for completing
- Are organized systematically
- Are suitable for duplication (spelling errors corrected, sentences complete, etc.)

b. Commercial materials

- Include sample copies of teacher test manuals, diagnostic tests, etc.

B. Technical assistance

- No new inputs for technical assistance other than PIP-specified assistance provided

C. Money

- Adequate budget for purchasing or modifying materials

D. USOE constraints

- New inputs on materials from USOE not expected (except through monitoring system, if available)

E. (Field-tryout inputs)

- None intended

II. Facilities

A. PIP information (on how to select, purchase, or make arrangements for required facilities)

- Information provided on quantity per student, per classroom, per school needed for beginning operation
- Information provided on which facilities are made available by the district (e.g., P.D.'s office space, furniture, etc.)

B. Technical assistance

- No technical assistance other than PIP specified assistance provided

C. Money

- Adequate budget for PIP-specified classrooms, tables, chairs, carpeting, and other facilities

D. USOE constraints

- New OE inputs on facilities not expected (except through monitoring system, if available)

E. (Field-tryout inputs)

- None intended

Other Resources

Start-Up

Intended Processes

I. Materials

A. Selecting/Ordering

- PIP designated person becomes oriented to instructional approach — Prior to the summer closing of school;
- Survey is made of materials available in each classroom, school, etc. — Following orientation to the PIB; amount of time is PIP specific.
- Core materials lists, supplementary subject matter area, grade level, etc., are consulted
- Alternate materials are selected if necessary
- District mechanism for channeling ordering of materials/equipment is determined and used

B. Distributing/Allocating

- Mechanism for sorting and distributing materials is established by PIP designated person — Prior to the opening of school in the fall;
- Mechanism for materials inventory is established — Amount of time is PIP specific.
- Plans for storage of materials (including their safety) are made
- Materials are distributed to each person, classroom, in-service room, or school as designated in PIP

II. Facilities

A. Selecting/Ordering

- PIP designated person uses PIP to determine what facilities are needed
- District office or principal is contacted for making arrangements to obtain facilities (classroom, desks, tables)

Prior to the summer closing of school; amount of time is PIP specified.

B. Distributing/Allocating

- Facilities are allocated via district procedures
- Portable classrooms, carpets, furniture, etc. are installed via district procedures

Prior to Preservice Workshop.

Other Resources

Start-Up

Intended Outcomes

I. Materials

A. Availability of materials

. Core materials available to staff during preservice training/orienting

. Materials available in each classroom for operations stage use; materials are appropriately placed in labs, classrooms, etc.

B. Adequacy of materials

. Appropriate core, supplementary materials available to staff during preservice training/orienting in adequate numbers

C. Acceptability of materials

. Staff plan to use core materials and supplementary materials as specified in PIP

II. Facilities

A. Availability of facilities

. Facilities available to staff during preservice training/orienting

B. Adequacy of facilities

. Available facilities are adequate as specified in PIP

C. Acceptability of facilities

. Available facilities are acceptable to project and non-project personnel

Other Resources

Operations

Intended (New) Inputs

I. Materials

A. PIP inputs

1. PIP information

. States ordering procedures for the Operation Stage

. Contains catelogs and fact sheets to assist personnel in ordering additional materials during the school year.

2. Sample materials

a. Materials designed by developer site (for use during Operations)

b. Commercial materials

B. Technical Assistance

1. Publisher representatives (e.g., consultation on ordering)

C. Money

. Sufficient funds allocated appropriately for PIP specified materials

D. (U.S.O.E. constraints)

. No Federal, State, and local governmental monitoring intended

E. (Field try-out inputs)

. None intended

II. Facilities

A. PIP information

. None intended

B. Technical assistance

. None intended

C. Money

. Sufficient funds allocated appropriately for PIP specified facilities

D. U.S.O.E. constraints

. None intended

E. (Field try-out inputs)

. None intended

Other Resources

Operation

Intended Processes

I. Materials

A. Selecting and Ordering

- P.D. and/or teachers order additional materials as needed using PIP procedures
- P.D. uses effective ordering procedures for obtaining materials

B. Distributing/Allocating

- Mechanism for sorting and distributing materials is used
- Mechanism for materials inventory is used
- Plans for storage of materials (including their safety) are carried out
- Materials are distributed

II. Facilities

A. Selecting/Ordering

- None intended

B. Distributing/Allocating

- None intended

Tasks are performed with PIP-specified intervals and duration

Other Resources

Operation

Intended Outcomes

I. Materials

A. Availability

. Core materials available for use by staff and students

. Materials appropriately placed in labs, classrooms, etc.

B. Adequacy

. Appropriate materials available for staff and students in adequate numbers

C. Acceptability

. Staff members use core and supplementary materials specified in PIP

II. Facilities

A. Availability

. Facilities available for use by staff and students as specified in PIP

B. Adequacy of facilities

. Facilities are adequate for instruction (heating, lighting, ventilation, etc.)

C. Acceptability of facilities

. Use of project classrooms is acceptable to project and non-project staff

Students

Selection/Adoption

Intended Outcomes

A. Skills/Characteristics

- Pool of students who have PIP-specified achievement level in PIP subject area
- Grade levels in replicating site schools match grade level configuration in PIP (e.g., Conquest must have schools with grades 1-6 in order to have PIP specified reading room)
- Socio-economic level of students in school match socio-economic level of students described in PIP

B. Attitudes

- PIP-specific; appropriate to the type of individual or group instruction used in the project.

Students

Start-Up

Intended (New) Inputs

A. PIP information

- PIP-specific selection procedures clearly stated
- PIP information clearly states which kind of students to serve, e.g., ability level, grade level, socio-economic level
- Test directions and scoring procedures (diagnostic, standardized, and teacher made) are clear
- PIP clearly states how many students are to participate in program per school year, per grade level, per classroom and/or classroom period, and per teacher, aide, etc.
- PIP clearly states length of time for student participation (e.g., PTR, entire school year)
- Number of students to be served at any given time is clear
- PIP is clear on procedures for grouping students within the classroom (e.g., HIT = one 7th or 8th grade tutor and one 6th or 7th grade tutee are paired)

B. Technical assistance

- No new technical assistance related to selecting students during Start-up

C. Money

- No funds are designated directly for students

D. USOE constraints

- USOE limits student participation exclusively to those students meeting PIP-specified characteristics

E. (Field-tryout inputs)

- None intended

Students

Start-Up

Intended Processes

- Achievement level data (if available) and student lists are obtained and organized for student selection
- Some PIPs specify special selection tasks to be completed during Start-up
- Plans are made to use PIP-specified management mechanisms for scheduling students (PIP-specified process)

Period in school year and amount of time is PIP-specific

Students

Start-Up

Intended Outcomes

A. Student skills/characteristics

. Pool of students with PIP-specified skills and characteristics from which project students can be selected

B. Student attitudes

. Pool of students with PIP-specified attitudes

Appendix D

DEFINITIONS OF TERMS USED IN THE PIP REPLICATION MECHANISM

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DEFINITIONS OF TERMS USED IN THE PIP REPLICATION MECHANISM

Actual. Observed inputs, processes, and outcomes at the replicating sites.

Adoption/selection stage. A stage beginning with receipt of the first information about the availability of a PIP and ending with a decision to award a PIP to a site (e.g., notice about monies available in Federal Register, writing of the PIP proposal, visit to Washington, D.C., and the like).

Establishing roles. Procedures designed to create roles or authority relationships which fall under neither selection nor training (e.g., giving a project director the task of hiring teachers to establish authority over them).

Facilities. All rooms or space with associated furniture, blackboards, carrels, and the like, related to the project.

Information. Descriptions of tasks and activities in terms of intended outcomes and their sequences. The significance of this category for the revision of PIPs is the assumption that project directors and other staff will know how to accomplish the tasks and activities described in this brief manner.

Inputs. The entirety of basic resources, including site characteristics, information, money, constraints, and the like, available at (or given to) a site for project replication.

Instruction. See Training.

Job aids. Materials designed to be used by personnel in carrying out tasks. These include such materials as public relations filmstrips, handouts, forms, memos, and calendars.

Intended (adj.). Designed for a specific purpose. (Those inputs, processes, and outcomes which are explicitly stated in the PIP or ASK and those which may be inferred as necessary for accomplishing PIP prescribed tasks.)

Materials. All equipment, supplies, and instructional materials related to the project. Processes relating to materials are selecting, ordering, distributing, and allocating. (See also Outcomes.)

(New) inputs. The additional inputs (e.g., information, money, constraints, assistance) given for use at the start-up or operation stage of the project.

Nonproject personnel. Persons who have an impact on project success, including district and school personnel who do not work directly for the project and parents or other community figures whose support is required or whose disapproval could be detrimental to project success.

Operation stage. A stage beginning with the first contact with students and ending at the close of the school year (e.g., diagnostic treating, scheduling students, instruction, parent meetings, in-service training, and the like).

Other resources: related systems. District mechanisms for ordering, distributing or allocating materials or facilities.

Outcomes. Results; for personnel and students, described in terms of their roles, skills, attitudes; for materials and facilities, described in terms of their availability, adequacy in relation to PIP specifications, and acceptability to relevant personnel.

PIP: Information. Reference materials and identification of tasks and activities in terms of their outcomes and sequences. (It is assumed that staff members know how to accomplish the tasks and activities described in this brief manner.)

PIP: Job-aids. Materials designed to help staff carry out their tasks (e.g., calendars, filmstrips, handouts, sample forms, and memos).

PIP: Self-training materials. Materials in the PIP that are designed to help personnel acquire new skills. They range from informal tips and suggestions about how to accomplish tasks to a programed tape/slide training sequence.

Processes. A sequence of activities performed at a prescribed time to bring about a result. (Staff are selected and trained; materials are ordered and distributed; students are selected and trained.)

Project staff. All personnel who work directly for the project, including principals when their involvement is extensive.

Related systems. Refers to materials-ordering systems, or systems for allocating facilities that exist in the schools. These systems are treated on an ad hoc, PIP-by-PIP basis.

Roles. Job positions and interrelationships of staff (e.g., project director is given authority and autonomy with his or her job title).

Self-training materials. Intended to help personnel acquire new skills, and range from informal tips and suggestions to, in one PIP, a programed tape/slide training sequence.

Start-up stage. A stage beginning with the receipt of the grant and PIP and ending with the completion of preparations for the first contact with students (e.g., staff recruitment and selection, orientation, preservice training, ordering materials, and the like).

Students: Selection. An operation process which includes actual contact with students for testing (either diagnostic or standardized), making the final decision about which students will participate.

Students: (Selection). A start-up process which includes the processing of test scores from the previous school year and the compilation of lists of potential project students.

Technical assistance. Help in carrying out tasks given to a project director from personnel outside the project. Technical assistance may be from PIP-prescribed sources, (e.g., publishers' representatives), from exemplary site contacts by phone, or through visits, or from information or guidance provided by OE officials, site visitors, and the like.

Training. Any activity designed to change skills or attitudes, including orientation and instructional activities. In addition to conventional skill training, this includes all orientation and instructional activities.

USOE constraints. Limits, regulations, or restrictions, on site activities by Title III, OPBE or other OE officers at the federal, regional, or state level.

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