The papers in this symposium reported methodology and results from the field case analysis portion of an ongoing study of federally-sponsored change agent programs being conducted by the Rand Corporation. The study is a several-year exploration of projects designed to introduce and spread innovative school practices. The study examined the following federal change agent programs: (a) Elementary and Secondary Education Act Title III, Innovative Projects; (b) Elementary and Secondary Education Act Title VII, Bilingual Projects; (c) Vocational Education Act, Part D, Exemplary Programs; and (d) the Right to Read Program. The research strategy produced survey data-based exploration of 293 change agent projects, followed by an intensive case analysis-based exploration of 29 projects. The symposium dealt with the methodology and results from the second fieldwork phase of the study. (JS)
Dale Mann  
Dept. of Educational Administration  
Teachers College, Columbia University  

AN INTRODUCTION TO THE RAND CORPORATION'S STUDY OF  
THE CHANGE AGENT PROGRAMS SPONSORED BY THE U.S.  
OFFICE OF EDUCATION:  

A paper prepared for the symposium on "The Field Study  
of Programs for Educational Change," American Educational  
Research Association, March 31, 1975, Washington, D.C.  

The Total Project  

The papers in this symposium report some of the  
methology and some of the results from the field  
case analysis portion of an on-going study of Federally-  
sponsored change agent programs which is being conducted  
by the Rand Corporation. The study is a several year  
eploration of projects designed to introduce and spread  
innovative practices in schools. The study examined four  
federal change agent programs -- Elementary and Secondary  
Education Act Title III, Innovative Projects; Elementary  
and Secondary Education Act Title VII, Bilingual Projects;  
Vocational Education Act, Part D, Exemplary Programs; and  
the Right-to-Read Program.  

The research strategy had two phases which can be  
roughly characterized as an extensive survey data based  
xploration of two hundred and ninety three change agent  
projects followed by an intensive case analysis-based  
xploration of twenty-nine projects. The symposium deals with  
the methodology and some of the results from the second  
fieldwork phase of the study.
Anyone who has ever seriously investigated the business of change in education knows what a thicket it is. Although some things work better than others, and although some options are clearly preferable to others, there are no easy answers. Worse, there are many wrong questions. The Rand project staff invested a great deal of effort in conceptualizing and reconceptualizing the field of planned change in education and the subfield of federally supported attempts to create planned change in education. American education has not been dramatically transformed by efforts at planned change. In fact, despite the diligent and often ingenious efforts of the last years, relatively few things have worked at all! The problem was (and still is) how to account for what has happened only a little bit. The faint imprint of the dependent variable (successful change) suggested caution in studying the independent variables. They too are likely to be subtle, difficult to measure, and idiosyncratic.

For purposes of the field work, the project staff was organized around five substantive areas. Three field teams concentrated on the change agent strategy as it had been practiced in programs sponsored by Right-to-Read (John Wirt and Todd Endo); Career Education (Tony Pascal and Dick Elmore); and Bi-Lingual Education (Jay Sumner and Marta Samulon). Two other teams focused on change agent programs designed to alter classroom organization (Milbrey Wallin McLaughlin and Mimi Baer) and on those designed to work through the medium of staff development (Dale Mann and Larry McCluskey). The latter two field teams looked mainly at programs that had been sponsored by Title III of ESEA. The classroom organization and staff development topics recurred in the other, programmatically organized teams, and thus all teams shared relevant notes. Peter Greenwood, as the director of the project for the field work stage, wrote one case in each of the five areas in order to assist with problems of data organization and comparability.

Fieldwork Methodology

The change-agent strategy was designed to improve schools; individual projects temporarily supported by the government were to be the vehicle of that change. Thus,
the central question addressed in the fieldwork stage was, quite simply, what happens when an innovative project is implemented in a school. The school as a unit of analysis for implementation was one distinguishing feature of this project. Another was its focus on the process of implementation. We expected to find the projects changing the school sites of their implementation and we also expected to find those sites affecting the project. Thus, we were seeking answers to two major questions:

(1) Do projects with various characteristics change what parts of schools, and,

(2) Do schools with various characteristics change what parts of Federally-supported projects.

One task of the Rand study was to determine a number of things about the delivery level impact of Federal programs, which implies the question of evaluation. We were interested in beginning to describe the institutional and educational processes which appeared to affect the success of innovative school projects. We were interested in the factors which led to the initiation of a project, the quality of its implementation, and the degree and permanence of its impact on the site. Impact was defined in three parts: (A) a near term change in behavior (eg., effects of the project on the school as an organization, on teacher conduct, and so on); (B) the continuation of project effects after the termination of Federal support; and (C) the dissemination or diffusion of the project's techniques beyond the site of its original implementation. One key to designing and assessing federal, state and local policy lies in understanding how the stages of innovation work in different locations, for different innovations, and for the various change agent programs.

The process of mutual adaptation between the project and the site required that we search for changes in both activities over time. Most projects examined were in at least their third year. Rand's data collection and reporting techniques were designed to facilitate capturing retrospective data so that we might better understand the process of mutual adaptation. Thus, the field work attempted to reconstruct the project/site features at two distinct points in time: its initiation and original implementation stage (roughly the first 90 days or one-quarter of the life of the project); and its operational
features at the time of the visit from the Rand study team. (An earlier three phase distinction among phases of "initiation," "original implementation," and "current operations" proved unfeasible, largely because the stages were too fine-grained for the retrospective nature of the data sought.) The difference between the project/site's characteristics at the two points in time was characterized as adaptation. The study teams also sought data that would allow them to assess the project's near term effects on the school, its prospects for continuation after termination of Federal support, and its prospects for dissemination or diffusion to other districts. Each field team tried to determine what the project/site experiences had been at each stage.

Descriptive information about the characteristics of the project and of the site was entered at each of the process stages. Project characteristics included the following:

**PROJECT CHARACTERISTICS**

(A) **Goals and objectives;** their origin, clarity and comprehensiveness.

(B) **Goal centrality;** the importance of the project's goals compared to the school's pre-existing set.

(C) **Goal consonance;** the extent of match or departure between the project's goals and the school's pre-existing set.

(D) **Treatment or means;** This section described the strategy of the project.

1. Materials; their type (curriculum, tests, placement procedures, training films, etc.) source, extensiveness, etc.

2. Classroom organization.

3. Staff development (group to be trained; extent, frequency, duration, etc. of training).

4. Additional personnel (projects which relied on hiring new people).
5. Comparative emphasis and utility among the above project techniques.

(E) Management: Aspects of administrative organization for the project.

1. Planning (who makes the decisions, on what basis, with what effect?)

2. Resource allocation decision (as above, how extensive is the involvement?)


(F) Complexity of project (Number and frequency of contingent events, length of necessary sequences, extent of cooperation required among units, amount of extraordinary performance required.)

(G) Amount of change required (How radically does the school have to depart from past practices? Is the change minimal? incremental? How measured?)

(H) Extent of change required (As a proportion of the school's total operation, how many people or operations would have to change in order to make the operation successful?)

(I) Place where change was to be manifested (on site of project or away?)

SITE CHARACTERISTICS

Rand field teams also sought to document the following characteristics of the school sites:

(J) Amount of Bureaucratication (enforced hierarchies, positional emphasis, dominance of standard operating procedures, etc.)

(K) Informal/Formal communication

(L) Decisional participation (specified by position and by process stage)
(M) Organizational capacity to innovate (amount and extent of prior innovation, degree of innovation-related specialization, propensity to take risks.)

(N) Ancillary effects on project participants (ie., in addition to the changes which the project intended to evoke in its participants, did it also use direct incentives -- salary overrides, released time --increased credentials, job mobility, etc.)

The five categories immediately above relate to site characteristics at the organizational level. It seemed useful, as well, to attempt to document characteristics thought to be relevant to the success of these projects at the level of the individual participant. Thus, most teams sought to document the following role correlates for each of five major categories of project participants.

(O) Administrators

level, place, and type of education, age, tenure status, previous career history, ambition, career-bound/place bound, proportion of salary from project, promotions associated with project, amount and type of project specific training received.

(P) Project director

(largely as above, "O")

(Q) Teachers

1. age, training, tenure status, career bound/place bound, etc.
2. previous experience generally and with innovative projects specifically
3. level of school
4. proportion of salary from project
5. how selected for project
6. amount and type of project-related training

(R) Paraprofessionals and volunteers
1. proportion of salary from project
2. how selected
3. amount and type of project-related training

The design for the field work was essentially one of collecting relevant data from the various sites about the various stages of those site's experience and interaction with the project. That design may be schematically summarized.

FIGURE 1. A FIELDWORK PROCESS SCHEMATICA

INITIATION

Key Questions: Why and how did the school initiate the project? What were the original characteristics of the project?

Data about this stage served as a baseline against which to measure project effects. We sought to understand how the school came to have the project, what the school looked like before the project's arrival, and the school's early expectations about the project.

Data about the original implementation concerned the features of the project as they were first put in place. This stage was defined as roughly the first one-quarter of the project's life. The description was organized in terms of the major categories -- goals, treatment, management, amount and extent of changes, etc.
IMPLEMENTATION

Key question: What were the current characteristics of the project and of the school site?

This was the basic and most extensive description of the project and the school site. The other sections were built on this description. The first part dealt with specific project features such as goals, treatment, management, etc.

The second part described the major site features such as bureaucratization, decisional participation, innovative capacity, role correlates of individuals, and so on.

ADAPTATION

Key question: How did the school affect the project?

This discussion was organized according to the same outline used in the previous sections. Field teams sought evidence for effects from the site back to the project in each of the major categories above.

NEAR TERM BEHAVIORAL CHANGE

Key question: How did the project affect the school?

Those changes which were evident during the life of the project and which could be attributed to the project were described here. The category discussed only the "near term" changes, those which had occurred during the life of the project. The word "behavioral" reminded the field staff that they should be most alert to evidence that people were doing things differently (or not) as a result of the project.
Key Question: What characteristics of the project were likely to be continued after the termination of Federal support?

This category referred to changes which could be expected to survive the project end. In most cases, the judgement was an informed guesstimate.

The number and complexity of the fascinating, important, and at least potentially testable hypotheses which can be generated from the data is limited only by the boggling threshold of one's imagination. (The categories above are a condensation of the extensive array of variables which had been thought to be useful at one time or another in the project.)

Sites were selected by each team by a preliminary analysis of the 293 places that had been subjected to the earlier, survey effort of the project. Thus, basic information about the project's purposes, size, duration, methods, and relative success was already available. Sites were chosen to represent a stratification of variables thought to be of interest to each of the teams. The initial selection was reviewed by the project leadership in order to insure a representation of field work case sites on such variables as geography, level of schooling, type of intervention, etc. Projects which appeared, prima facie, to be successful were overrepresented on the grounds that those places which had changed would be more fruitful sites for the investigation of the process of innovation than those which had not changed.

The field work was conducted in the course of a three-to-five-day visit to each site by the two-person teams. Each team sought to conduct interviews with the district's superintendent, the relevant state and federal program officers, the project director, the principal of the school...
or schools affected, and classroom teachers and others as appropriate. Information developed over the course of the interviews was often cross-checked with prior informants. The teams were encouraged to return their case analyses, in draft form, to the responsible site personnel for comments and correction.

The overall sequence of field work included the following activities.

1. Development of prototype guides for field data collection and the testing of those guides in six cities by the team leaders.

2. The revision of the prototype guides into a complete field data collection schedule and an outline for case analysis.

3. Preparation of some exemplary cases.

4. A three-day training session for all field workers in the purposes of the study, the uses of the guide, and the preparation of case analyses.

5. The actual field data collection.

6. Preparation of 29 individual cases.

7. The synthesis of the data from the cases by each of the teams (i.e., the program or function-related summary analysis of their field data by the Bi-Lingual, Career Education, Right to Read, Classroom Organization, and Staff Development teams).

8. The synthesis of the data from all of the cases, and all of the team summaries, along the major stages of project/site interaction ("initiation," "implementation," "Adaptation," "near term behavioral change," "continuation," and "dissemination/diffusion.")

9. Circulation of the over-all synthesis to all team members for comments, criticisms, extensions.

10. Preparation of a draft final report on the results of the field work stage of the project's first year.

The first year of the Rand change agent project included survey data from 293 sites, case analysis data from 29 sites. It made use of the contributions of more than a score of Rand staff members and consultants (more than 700 person-days of field work), and relied extensively on the cooperation of hundreds of educators in the various sites.
and agencies. The process of refining the first-year final reports for the Office of Education has been arduous and time-consuming. It is thus inevitable that any description of an ambitious field methodology, such as this one, will be shaded by the emphasis of a single author, such as this one. Further information about the methodology of this project is available elsewhere in the papers of this symposium and in the Rand project reports themselves.1