DOCUMENT RESUME

ED 290 231

EA 019 854

AUTHOR

Cox, Pat L.; And Others

TITLE

Getting the Principal off the Hotseat: Configuring

Leadership and Support for School Improvement. A

Technical Report.

INSTITUTION

Regional Laboratory for Educational Improvement of

the Northeast & Islands, Andover, MA.

SPONS AGENCY

Office of Educational Research and Improvement (ED),

Washington, DC.

PUB DATE

Jul 87

CONTRACT

400-86-0005.

NOTE

88p.

PUB TYPE

Reports - Research/Technical (143)

EDRS PRICE

MF01/PC04 Plus Postage.

DESCRIPTORS

Change Strategies; *Cooperation; Educational Change; Elementary Secondary Education; Hypothesis Testing; *Leadership Styles; Linking Agents; *Organizational Change; *Principals; Research Utilization; *School

Effectiveness; Synthesis

IDENTIFIERS

*Leadership Effectiveness; School Improvement

Projects

ABSTRACT

Drawing on research conclusions about the process of educational change, this report seeks to demonstrate the importance of understanding the diverse factors that inhibit or enable school improvement efforts. The report focuses on leadership and support in achieving successful change and stresses that principals are but one of several players who can cleate leadership for improvement. While not concerned exclusively with leadership and support, two school improvement studies are examined to illustrate how a variety of leadership configurations occur within different contexts and with varying degrees of success. Section 2 of the report summarizes the objectives of the studies -- one on dissemination efforts supporting school improvement and the other on the role of teacher incentives and rewards in implementing a technological innovation. Insights about leadership and support that came from observing change at the field sites of the two studies are discussed in section 3. Section 4 describes the report's methodology and explores the institutionalization of changes and leadership and support as they were manifested at the sites. The kinds of leadership configurations associated with the presence or absence of different types of institutionalization are detailed in section 5. The final two sections offer conclusions and recommendations for further research. The two studies generally substantiate the hypothesis that leadership and support assume varied forms and have many sources. Educational change based on the collaboration of many actors is more likely to be successful because the opportunities created serve to maintain change after individuals move on. Numerous tables and figures comprise over one-half of the document, and include those derived from literature research and from diagrammatic analysis of the studies examined. Fourteen references are appended. (CJH)



a technical report

Getting the Principal off the Hotseat: Configuring Leadership and Support for School Is provement

U.S. DEPARTMENT DF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
"NTER (ERIC)

- This document has been reproduced as received from the person or organization originating it.
- Minor changes have been made to improve reproduction quality
- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

David P.

Chandall

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."



BEST COPY AVAILABLE



GETTING THE PRINCIPAL OFF THE HOTSEAT:

CONFIGURING LEADERSHIP AND SUPPORT

FOR SCHOOL IMPROVEMENT

Pat L. Cox Lindsay C. French Susan Loucks-Horsley

July 1987

A technical report that examines a variety of leadership configurations in schools that successfully implemented and sustained innovative programs.



The Regional Laboratory for Educational Improvement of the Northeast and Islands, 290 So. Main Street, Andover, MA 01810 617-470-0098



This publication is sponsored wholly or in part by the U.S. Department of Education, Office of Educational Research and Improvement, under contract number 400-86-0005. The content of this publication does not necessarily reflect the views of the department or any other agency of the U.S. government.



CONTENTS

I.	Introduction
II.	Overview of the Studies
III.	Learnings about Leadership and Support 5
IV.	Leadership and Support for Successful Institutionalization:
	A Secondary Analysis of Case Study Data
v.	Successful Leadership and Support Configurations:
	Process and Outcome
VI.	Conclusions
VII.	Recommendations for Further Research
	References



I. INTRODUCTION

Our research over the years has been concerned with understanding the process of educational change -- in individuals and in the organizations where they work -- and the factors that inhibit or make possible those changes. These factors are diverse in nature, including, for example, the types of changes, the people, the climate of the organization, and the kinds of assistance and support provided -- and we have learned how interrelated these factors are in effecting a successful change effort in a particular context. Given the multiplicity of factors and the complexities of their interrelationships, we have been struck by the seemingly single-minded emphasis that some researchers, practitioners, and policymakers have given to the role of the building principal, as if that one person alone can single-handedly make change happen (e.g., Clark, et al., 1980; Fullan, 1981; Huberman & Miles, 1982).

For example, this perspective has fostered the establishment of academies for principals only, where the content often reinforces the "you're the one" mind-set. While such a perspective conveniently designates a responsible party, it constitutes something of a set-up for building heads by vascly oversimplifying the change process. At the same time, it allows significant resources -- both human and material -- to remain unidentified and therefore untapped and unaccountable.

Our view, based on conclusions drawn from research, is more complex and therefore less easily reduced to one-liners or quick-fix recipes for accomplishing change. It suggests that principals are one of several players who can create leadership for improvement, that their participation is important, but alone is not sufficient to pull off a major change effort. We posit that understanding the roles of others can yield a number of important payoffs.

First, it gets the principal "off the hotseat," allowing individuals in those positions to avoid the unreasonable pressure and demands that may accompany the incredible expectation that one person single-handedly can change a troubled or underachieving school. Second, it offers guidance in how to think about leadership in ways that can optimize the strengths of multiple people in different roles while maximizing the chance for successful change to occur. Third, it suggests a variety of strategies for achieving change both at the individual and at the organizational level. A number of studies, using a range of approaches, support this perspective (Fullan, 1982; Hall & Hord, 1987).

To allow us to see a variety of leadership configurations within some very different contexts and with varying degrees of success, we examined two recent studies of school improvement. These studies, while not focused exclusively on leadership and support, nevertheless documented those behaviors in sufficient detail to be suitable for secondary analysis.

The Study of Dissemination Efforts Supporting School Improvement (hereafter called the SI Study for purposes of brevity) examined the effects of a range of federal and state strategies focused on supporting schools to change their curricular and instructional practices (Crandall & Associates, 1982). The Study of the Role of Teacher Incentives and Rewards in Imple-



 1 6

menting a Technological Innovation (hereafter called the I&R Study) focused on the effects of positive inducements for classroom users of a computer-based writing program named QUILL (Loucks-Horsley, et al., 1935). In this second study, and in the field component of the first, we spent an entire school year observing change happen or not happen, and we were able to discern or reconstruct the causes.

As we considered what we learned about leadership as a result, we've been struck not only by what functions are played by leaders at different levels of the organization, but also by what phases of the change process those leaders have helped bring both individuals and the organization through and to.

Finally, and most significantly, we have traced the actions (and inaction) of leaders to their impact on the changes themselves and on their outcomes, both temporary and permanent. We have teased apart change occurring in individuals from that happening at the level of the organization. Put simply, people may change, (acquiring new skills, knowledge, etc.) and in the process, they may or may not move through a series of stages until the new behaviors are permanently fixed or routinized (Loucks & Hall, 1977). However, for a change to be fixed or permanent in an organization, there must be mechanisms for maintaining the change even if the individuals move on. Ironically, this is particularly important in successful change efforts because they create opportunities for the actors involved and many step up to other positions (Huberman, 1983; Miles, 1983).

In the next two sections, we will briefly summarize the two studies, then describe general learnings about leadership and support that set the stage for the secondary analysis of case study data that forms the bulk of this paper. Section IV begins the secondary analysis with a description of the approach we used. We will skip to the outcomes end of the change process, proposing a way to think about institutionalization of change that allows us to focus in on the leadership and support functions that made lasting improvement possible. In Section V, we will look in more detail at the kinds of configurations of leadership associated with the presence or absence of different types of institutionalization. Finally, in the last two sections, we draw some general conclusions and make recommendations for further research.



II. OVERVIEW OF THE STUDIES

Between 1978 and 1982, The NETWORK, Inc., with collaborators throughout the country, conducted the SI Study, which examined federal and state strategies for supporting change in schools. 1 Many of these strategies involved dissemination of new practices, others involved funding for local develop-Two components of the study are most relevant to this analysis. In the local survey component, nearly 150 schools in ten states were visited, and selected teachers, principals, and central office staff were surveyed about a specific innovation they had adopted or developed, in order to discern the extent of implementation and the factors supporting or inhibiting its success. In addition, external facilitators -- trainers, consultants, state level facilitators -- who had been involved with the schools' implementation efforts were surveyed. The focus of the study was the experiences of districts and schools in the selection or development and later implementation of 61 new practices or innovations -- ranging from an alternative high school to an early childhood curriculum (Crandall and Associates, 1982).

In the study's other locally focused component, the field study, twelve of the 150 schools were examined intensively for a year to better understand the details and the dynamics underlying their improvement efforts (Huberman & Miles, 1982). Causal path analyses in the first component, and a new approach to analysis of qualitative data in the second component, allowed us to draw some conclusions about the factors supporting successful improvement, including the contributions of various persons in leadership roles (Cox, 1983).

The I&R Study, conducted in collaboration with Bolt, Berz.iek and Newman, examined the role of incentives and rewards in teachers' implementation of a single new practice, the computer-based writing program QUILL (Loucks-Horsley, et al., 1985). One interesting angle of this study was that we were observing an attempt on the part of teacher trainers to directly implement findings of the first study, especially as related to encouraging the appropriate leadership and support activities on the part of principals, district staff, and others.

Ten classroom teachers from a total of five schools in four districts were studied. Settings varied by community type, degree of commitment and support, experience with computers and a process approach to writing, and in the number of years teachers had been using QUILL. Data gathered through a year of intensive study were subjected to causal network analysis, and conclusions were drawn about the influence of not only rewards and incentives, but also the variety of disincentives discovered to be active in the cases. The interplay of incentives and disincentives with various leadership and support activities is particularly interesting.

In the next section, we summarize briefly some of the insights and results that came from these two studies.

3



l Collaborating organizations included the University of Texas Research and Development Center for Teacher Education, American University's Knowledge Transfer Institute, the Center for Policy Research, and UCLA's Center for the Study of Evaluation.

III. LEARNINGS ABOUT LEADERSHIP AND SUPPORT

Leadership is a "buzz" word in the 1980s and multiple definitions abound. Our conception of leadership is focused not only on formal authority and lines of command that traditionally underlie "leadership" in traditional organizations, but also on the complex of actions necessary to bring about a change in current operations -- innovation can arise from a variety of sources and is always a challenge to the status quo, no matter how desirable the particular change in question might be. Our work has focused on the innovations, the changes, and the actions that brought them about (or didn't, in the case of unsuccessful efforts). This has allowed us to examine leadership as it occurs rather than concentrating only on formally designated authority.

Some individuals who contribute to change are acting in leadership roles outside their regular task or job descriptions; others have leadership as part of the roles they typically play. Leaders are individuals who are working to motivate and assist others in doing things in a reflective manner such that new, presumably better ways arise or are sought out.

One final introductory point is important. Support is for us an integral part of leadership. However, because so many other definitions do not include it, we have made it explicitly part of the concept, "leadership and support." For us, there can be no real leadership without support and assistance for others.

Leadership and Support Functions/Activities

Previous studies of school improvement suggested that many functions have to be carried out for a change effort to succeed (e.g., Nash & Culbertson, 1977; Cates, 1978; Decad, et al., 1981). Figure 1² is a listing of those activities. We found that variation in outcomes was associated with whether or not the activities were performed, to what degree, and by whom.

Multiple Actors in Leadership and Support Roles

We found leadership and support emerging at all levels of the educational system in the process of implementing innovative programs (Cox, 1983). Some of the leadership roles were assigned; others developed as the change efforts progressed. For example, teachers wrote curriculum as part of practice development, trained other users, and helped one another solve problems and adjust. Resource teachers within a school but without special assignments provided coaching to individual teachers and led problemsolving sessions for groups of teachers. Principals secured training and equipment, rearranged schedules, ran interference for teachers, created clear expectations for use of the program, and brokered help from district and external experts.

In addition, district coordinators arranged or conducted training, assigned support teachers, mandated use of the program, conducted evaluations, and built commitment in the superintendent and the School Board. Parents assisted with trainings and procured equipment. External facilitators

 $^{^2}$ All figures are found at the end of the text.



built commitment in teachers and administrators, trained teachers, guided required organizational changes, and provided follow-up encouragement and support. It was clear that leadership and support occurred at many levels, at many points in time, and were important to the success of the change efforts.

Different Actors Associated with Particular Leadership and Support Functions/Activities

The many individuals involved performed a variety of activities or functions, as we began to describe above. Our qualitative analysis revealed that for some functions certain role groups were particularly effective (Cox, 1983). For example, principals were key in ensuring the overall organizational stability needed to effect a change in curriculum or instructional practice in a particular school. Crisis-oriented organization was counterproductive to improvement efforts, and the principal was instrumental in avoiding such an orientation.

In like manner, the functions performed by district-level staff with responsibilities for the new program had a direct influence on the changes made by teachers in classrooms. At the same time, external facilitators had direct impact on the organizational changes required for implementation, for example, how to best reorganize a school's schedule and teacher role assignments to make the change most effective and efficient.

Different Leadership and Support Functions for Different Phases of the Change Process

The functions listed in Figure 1 fall naturally into three phases of the change process: Initiation, Implementation, and Institutionalization (see Figure 2). Each phase is crucial to the success of the innovation effort. We found, however, that the farther into the change effort a district or school and its teachers got, the less likely the appropriate and necessary functions of leadership and support were performed.

Considerable attention was given to the "front end" of the process -- initiating activities such as commitment building, procurement of materials and equipment, initial training, etc. -- with much less attention given to the "back end." In relatively few cases were the functions vital to institutionalization carried out. The result was that individual teachers were often left to decide, whether consciously or unconsciously, whether to carry on with the innovation themselves; often they had to do so without the support provided during the earlier implementation period. By that time the special attention and encouragement of principals and central office staff, help from school resource teachers, and even a full supply closet had often disappeared. It was clear that schools and districts that did not attend to all three stages of the change process would not ultimately be successful in their change efforts.

It was against this backdrop of findings that we undertook an examination of the leadership and support configurations in the two studies, with the objective of learning more about the contours of leadership and support functions and their relationship to successful school improvement.



IV. LEADERSHIP AND SUPPORT FOR SUCCESFUL INSTITUTIONALIZATION: A SECONDARY ANALYSIS OF CASE STUDY DATA

There are clearly many factors that contribute to the success or failure of change efforts, as the case study analyses from these two studies make clear. Among the important considerations are the nature of the innovation, its size or scope, how different it is from current practice, characteristics of the district and school including climate, size, staff relationships, and so on.

The individuals involved in the change effort are the mediating influences. They deal with the factors listed just above and many more besides, either protecting the change effort, facilitating, solving problems, etc., or allowing destructive factors to hinder or derail the effort. In this secondary analysis, we concentrate on the leadership and support actions of the people involved -- what they did (or didn't do) -- at different points in the change sequence.

Just as there are many input or mediating factors, there are many outcomes of a change effort: individual mastery of a new practice, student achievement, user satisfaction, organizational change, etc. In this paper we have chosen to limit ourselves to one outcome -- institutionalization -- looking at both individual and organizational dimensions. While all the other outcomes are necessary parts of successful change, they are not sufficient in and of themselves without institutionalization. If the change does not remain after introduction, one cannot say that the change effort was successful.

In this section, we describe the sites and the approach we used for analysis. We then move on to discussions of institutionalization and leadership and support as they were manifested in the 18 sites of the two studies.

The Case Study Sites

Both studies examined the phenomenon of change at the district, school, and individual levels. Our analysis of data is based on the final reports from these investigations (Huberman & Miles, 1982; Loucks-Horsley, et al., 1985).

The Study of Dissemination Efforts Supporting School Improvement (SI Study) Sites

The 12 sites that formed the case study component of the SI Study constituted a wide range of change attempts. In general, the scope of the efforts was large, often involving several schools or the entire discrict. This is not the same thing as the size of the change, however: many of the innovations were quite modest to begin with or were reduced in size to make them less disruptive. The researchers visited the sites when the new practices had been in place for two or more years. In several districts, the new practices had been implemented widely after a pilot in one or two classrooms had proven successful. Figure 3, reproduced from Huberman and Miles (1982) gives additional contextual data about the 12 sites, which were a mixture of secondary and elementary schools in a wide range of communities in all the major geographic sections of the country.

7



The Study of Teacher Incentives and Rewards (I&R Study) Sites

The I&R Study had four full case study si. 25 and three sites that received briefer treatment as vignettes. All sites were drawn from the pool of ten sites chosen for dissemination of the QUILL computer-assisted writing program under a federal grant. Three of the case study sizes involved one school and two teachers; one involved two schools, with two teachers in each school. One vignette focused on two teachers; the other two had one teacher each. Figure 4 gives additional contextual data about six of the seven sites, which included both elementary and middle or junior high schools in a variety of communities primarily, but not exclusively, in the Northeast. The vignette for the seventh site did not contain enough contextual data to be suitable for secondary analysis.

Approach to the Secondary Analysis

To perform the secondary analysis, we reviewed the case analyses for the two studies, looking at data for individuals and schools/districts. Working independently, two researchers made judgments about the presence/absence of particular leadership and support functions; about who (i.e., people in which roles) had performed them; and about different dimensions of institutionalization. Although there were some ambiguities in the texts of the reports, there were few disagreements between the researchers about the ultimate disposition of roles or sites. More about our approach is explained as we progress through the analysis.

Two Dimensions of Institutionalization: Individual and Organizational

Given our understanding of the motivations and intentions of the initiators of change at our study sites, we defined success as the institutionalization -- the ongoing, stable, indefinite operation -- of an innovative program. We wanted to be very clear about what we meant by institutionalization, however. Recalling the debates to which we had been party during the SI Study, as well as our other experiences studying the individual-focused Concerns-Based Adoption Model (CBAŁ, (Loucks & Hall, 1977), we defined institutionalization along two dimensions: individual and organizational.

Using the language of the CBAM, one can say that an <u>individual</u> has institutionalized an innovation if he or she is functioning at a level of use that is routine or higher; if his or her informational, personal, and management concerns on the Stages of Concern scale are relatively low; and if he or she is using components of the innovation in an acceptable way (i.e., wi' an acceptable degree of fidelity). That is, the person is using the innovation comfortably, without particular problems, in a way that its developer would recognize.

The <u>organizational</u> dimension of institutionalization involves establishing structures and routines within the organization -- here the school and the district -- that support the continued use of the innovation by individuals. These include permanently assigning new roles and responsibilities; involving a critical mass of teachers from within the school; having a line-item in the budget; writing the new program into the curriculum guidelines; routinely training new or reassigned teachers in the innovation; and making permanent needed organizational rearrangements such as schedules and



room assignments.

As we examined the 18 sites in the case studies for indications of institutionalization, we encountered extensive variation along the two dimensions. At some sites, there were neither organizational structures nor classroom/teacher change; at other sites, the structures and routines had been set up, but little change had occurred in the classrooms because teachers' behavior had remained unaltered. At still other sites, individuals had institutionalized the programs in their classrooms, but no organizational routines or structures existed; at others, institutionalization had occurred at both the individual and organizational levels. Figure 5 is a display of the sites by dimension of institutionalization.

Although each site we looked at was unique, there were broad similarities among the situations in sites falling into the same categories in Figure 5. There were six sites with neither individual nor organizational institutionalization - we called them 0/0 sites; two with organizational institutionalization only -- these were 0/1 sites; five with individual institutionalization only -- 1/0 sites; and five with both individual and organizational institutionalization -- 1/1 sites.

We found that institutionalization along only one dimension was not sufficient to see ain a new program. On the one hand, if the district or school has mechanisms in place but there are no users working with students, there really is no program. On the other hand, while the presence of individual users in a school is certainly better than no use at all, their efforts are likely to be unintegrated with those of the school and larger district. Without support, they are likely to either gradually or abruptly discontinue use. If they leave, the change disappears totally.

Leadership and Support Functions

To examine how leadership functions were shared in sites with different patterns of institutionalization -- and to see where leadership was arrogated -- we developed the Leadership and Support Configuration Checklist (see Figure 6) by arraying the functions and phases from Figure 2 along the side and the range of possible roles along the top. We then returned to the case study data and created a Checklist for each site, indicating for each function or activity, who, if anyone, had performed it.

This gave us a clear picture for each site of who was or was not taking responsibility for the innovation at different stages of its implementation, and allowed us to make comparisons between sites. The following brief descriptions, which illustrate leadership configurations representative of typical situations in all four boxes of Figure 5, are based on the information revealed through these charts.

The case study data do not permit us to make final judgments about the quality or quantity of leadership and support. Moreover, we did not attempt to count the numbers of each role involved per site, since ascertaining precisely how many teachers, counselors, etc., had been involved was not possible for every case. However, to illustrate the variations in configurations of leadership and support at the various sites, looking at the presence/absence of leadership and support will suffice.



Leadership and Support for Different Dimensions of Institutionalization

In this section we look briefly at each of the sites to get a rough understanding of the dynamics of change as it unfolded. We begin with change efforts that were not institutionalized at either individual or organizational levels, and proceed through each category, ending with completely institutionalized change efforts.

Sites with No Institutionalization

There is often considerable activity and expenditure of energy in sites where, in the final analysis, the effort does not pay off and the change is not embedded either in individual behaviors or in organization structures, either at the school or the district level. Such outlay of energy on the part of individuals is likely to build bitterness, resentment, and reluctance to try something new again. This is true for all, regardless of role.

In 0/0 sites there was inadequate or no district level coordination of the new project. In some cases the project had been developed at the building level; it may have received cursory approval by the district, but no responsibility was taken for the project at that level. In other cases, coordinating responsibility was simply abdicated at the district level. In still others, there was no real district commitment to start with.

In 0/0 sites there was little or no building-level support for the implementing teachers either. Responsibility for this on-the-ground support was either abdicated or never assigned. In most cases principals were uninvolved in the innovation: either they weren't interested or they hadn't been recruited by program initiators. In general, no other building-level support was provided. There was no assistance for the development of implementation procedures, frequent resentment about programs "decreed from on high," and little sense of the programs' importance.

In some cases the innovation was insignificant and poorly designed to start with: it did not inspire commitment or adherence to program guidelines. In all cases the lack of support, assistance, and/or pressure from leaders meant that teachers usually implemented poorly, weakly, and/or inadequately. Moreover, the lack of overall project coordination meant that organizational institutionalizing activities rarely took place. Once again, no one accepted responsibility for these vital functions. As for the individual teachers, their use either was never established, or it stopped.

Figures 7-A through 7-F represent sites from the two studies that achieved neither individual nor organizational institutionalization. Space does not permit us to present the analysis of each one in detail, but we describe each one briefly to highlight the impact of lack of leadership and support on the two dimensions of institutionalization.

Even though we have rated all six sites as 0/0s, there is a range among them. Dun Hollow and Proville from the SI Study (Figures 7-A and 7-B) consisted of change erforts that could barely be discerned by the visiting researchers. These two programs had very few activities in the initiation and implementation phases, let alone institutionalization. As can be seen



from their charts, very few people did anything, use was very low, and nothing much resulted.

The implementation effort at Burton, a third SI Study site, fared a little better, but not much. (See Figure 7-C.) At this site, training actually took place, but the innovation was seen as "optional" and "supplemental." The involvement and commitment of the teachers was minimal, district leadership did little besides bring in the practice, and the change effort never made it through the implementation phase.

These first three sites are examples of "little ventured, nothing gained," but the other three are illustrations of considerable effort through the first two phases that could not be sustained and institutionalized.

Figure 7-D represents the I&R Study's Heath Elementary School in Seaburg, an inner city school where an innovative writing program was initiated by some very enthusiastic teachers and a parent. It was their intention to get trained in QUILL, then help other teachers learn how to use it; other teachers were interested but satisfied to wait and see how things worked out. The principal said "yes, as long as you do your other work," and was not heard from again. His support was conspicuously lacking.

The district provided the grant money to set up the program, but there was no other support since the central office was only "loosely coupled" with the local schools. It actively supported only those initiatives taken by district staff and used a traditional, one-shot, smorgasbord inservice approach to introducing new material to teachers. Initial training of the two pilot teachers by program developers went well, but the parent, who was designated to help the teachers with follow-up training and support, was not able to get enough time away from work and admitted to feeling uncomfortable "telling the teachers what to do."

The one teacher who was experienced with computers and got QUILL underway beautifully in his classroom was transferred to a different grade level where he began again; however, he soon afterwards became seriously ill and left school altogether. The other teacher, new to computers and less committed to begin with, received no assistance or support, became discouraged, and ultimately gave up. With no district support, no support from the principal, and no follow-up training or assistance, other teachers could not sustain the new program.

Martin Luther King Middle School in Adam, from the I&R Study, and Perry-Parkdale, from the SI Study, are sites that technically could be considered examples of individual institutionalization only, or 1/0s. (See Figures 7-E and 7-F.) As can be seen from the Checklists, a number of individuals contributed through the first two phases, but there was no one who attended to the institutionalization requirements. When the researchers made their last site visits, there were individual users still maintaining the practices. However, the prospects for continued use were exceedingly dim. Competing curriculum priorities, controversy, and an unstable community environment were going to take their toll in the near future.

Sites with Organizational Institutionalization Only

In 0/1 sites most often the programs mandated at the district level were inappropriate for the districts' needs and reflected a poor understanding



of school or individual user conditions by that administrative level. Programs were developed with inadequate attention to local detail, and/or building-level implementors were left to work out the details themselves. As a result, programs at these sites often bore little resemblance to their intended form.

In sites where there is organizational institutionalization only, there is a communication gap between the initiators and the would-be users in the classroom. Astoria, from the SI Study, is a case in point and is portrayed in Figure 8-A. The new practice was mandated at the district level for all schools. Central office personnel carried out activities at each phase of the change effort. However, the new practice was a kindergarten screening program to identify children at risk, and the middle-class elementary school that was the study site considered it inappropriate for their situation. The teachers made so many modifications to the innovation that it could not be said to be in use even though considerable effort went into its perpetuation.

The situation in Carleton, a I&R Study site, was somewhat different, but again is an example of district procedures in place without active users. (See Figure 8-B.) There a pilot teacher was trained but had trouble with the innovation. The other teacher struggled with QUILL, but did not use it in an acceptable manner or at a high level.

Sites with Individual Institutionalization Only

Schools where individual innovators are allowed to persist but receive little substantive support are likely to become 1/0 sites. Little distinguishes them from the last three 0/0 sites we described above except the presence of users working in stable environments who show signs of continuing the new practices for an indefinite period of time.

In 1/0 sites, the commitment to implement by and large came from the teachers. In these sites, the principals' involvement in the projects was noticeably absent. No one facilitated equipment purchases, arranged for trainings, or eased the other burdens on implementing teachers. No building resource person or vice rincipal was assigned to monitor the process or provide assistance and support. Sometimes central office support was forthcoming but just too remote to provide useful on-the-ground assistance. Sometimes the project was developed within the school and given the district's nod but never received a real administrative mandate, and the organizational institutionalizing activities were not attended to. In other cases the project was initiated at the district level but no one assumed the coordinating role that was crucial to ensuring adequate project implementation. Sometimes the project died because initiators left the district before institutionalizing activities had taken place and ongoing structures had been established to ensure its continuation.

In all 1/0 cases individual teachers kept the project alive because they were personally committed and put a lot of themselves into it in spite of a lack of support. They did their part but they were only half of the equation. The organizational institutionalizing activities were not attended to.

As a glance at Figures 9-A through 9-E indicates, with the exception of Banestown, no one performed any functions under institutionalization,



(Figure 9-D). Countryville is one such site, represented in Figure 9-A. A small school district, it decided to "move into the technological age" by training a couple of teachers in QUILL. The district computer coordinator arranged for training and promised to use a "turnkey" strategy for training additional teachers after the initial two had mastered the program. The teachers, a writing and a computer enthusiast, were greatly excited. Their principal, whose philosophy was to hire good people and leave them alone to do good work, was supportive but remained entirely uninvolved.

It was not clear why it took six months for one of the teachers to get the right kind of monitor, except that nobody, not the principal, the computer coordinator, nor the district writing coordinator, was taking final responsibility for the new program. As Figure 9-A indicates, the teachers themselves took responsibility for the implementation phase, without other support. But after the external trainer returned for follow-up, initiating a mad scramble to procure the equipment, the two teachers and their classes thoroughly integrated and valued the program.

At the end of the first year, however, the district writing coordinator had decided to implement another set of writing software in the other schools. Plans to have the two teachers help others use QUILL disappeared. While the teachers were still enthusiastically using the program in their own classrooms, they received no back-up support from the district. Given that the district had mandated the use of a different program, theirs was highly vulnerable. Its future depended entirely upon their own continued use of it.

Calston, from the SI Study, is another example of teachers who persisted despite great odds. The change effort involved a drop-in, individualized reading program that was initiated by the district curriculum coordinator of language arts. She recruited two principals, who in turn enlisted teachers to implement the new practice. Materials were slow in coming, there was little support from either district or building, and a budgetary crisis cut staffing, but the remaining teachers managed to stabilize their use (see Figure 9-B).

Lido, also from the SI Study, was the site where an off-campus, interdisciplinary, environmental education program was developed by teachers, complemented by a National Diffusion Network program. District support for the effort derived from the fact that the program's location at a nature reserve relieved overcrowded conditions at the high school. The principal who was supportive changed position, and administrative interest died altogether when student enrollment declined. (See Figure 9-C).

In Banestown (SI Study), District staff were responsible for very quickly bringing in a pullout, intensive remedial lab for reading and math to meet state requirements and for just as quickly losing interest in supporting it. The building administrator abdicated his role, yet the lab teachers eventually mastered the program and continued its use. The program was surviving on soft money, having demonstrated its merit. (See Figure 9-D).

Supported by the project trainer, one enthusiastic teacher was continuing to use the computer-based writing program in Hoover City, an I&R Study site. District and building administrators, who had initiated the implementation, had since left their positions; no other district or building personnel involved themselves, and other teachers were less than success-



ful. (See Figure 9-E.)

Sites with Both Individual and Organizational Institutionalization

There were five 1/1 sites, places where changes successfully completed the three phases of implementation. In each of the sites, a variety of individuals played leadership roles.

In all the successful 1/1 sites we looked at, a powerful district-level program advocate or overseer was present. What position this person held varied considerably. In some cases s/he was a district curriculum coordinator, in some the position was shared by a district-level staff person and a few building-level leaders. In others a management team was constituted of representatives from several different roles; in still others a management team hired a part- or full-time project director. All successful sites had significant upper-level district interest and support, usually from the superintendent and/or the school board. All successful sites had principal involvement, at least to the extent that the implementors knew their principals supported the project and took an interest in their performance. Where the principals themselves were not actively involved, they oversaw the provision of on-the-ground assistance by resource staff or a team of project implementors. Where the innovation involved specific procedural and/or curricular changes, implementing teachers both received considerable assistance and were closely monitored by project support staff. Where the innovation was a more generalized new program, extensive support was provided and evaluation was an integral part of the program. We illustrate the types and sources of leadership and support later in the paper.

Implementation was not universally smooth in projects that were ultimately successful, but on-going involvement to address problems as they arose and a combination of push and support through the difficult beginning was an effective implementation strategy. Firm but responsive support on the part of project leaders -- not mindless pressure -- was apparent.

All the successful 1/1 projects we looked at involved significant innovations which, in effect, required district involvement and support. Some started as pilot projects, then were expanded to include the entire district. This was often an effective way to demonstrate the value of the innovation and to build support for it in the district. Often the dramatic successes of pilot tests, where the implementors were hand-picked and received considerable individual attention, got watered down in the districtwide implementation. Expanding a pilot test to districtwide implementation was a challenge to the effectiveness of the project's en-going, built-in support structures. It was, in effect, a test of the project's organizational institutionalization. In such expansion efforts, it was the district coordinator or overseer who attended to long-term project continuation by establishing ongoing support structures and making the organizational changes to ensure the program's continuation.

In Beechwood/Rowley (I&R Study), for example, a successful program began when an enthusiastic district language arts coordinator drafted two principals, who in turn each drafted two teachers to "pilot" QUILL (see Figure 10-A). In each participating school the language arts resource teacher was especially assigned to help the piloting teacher during the first few weeks of implementation. Though skeptical, all four took the training and began



immediately to implement the program.

The principals attended some of the training, made certain the equipment was in place for the teachers, and "ran interference" for them during the first half year. (The last included protecting them from visitors and "letting them off the hook" for priority subjects that were the focus for the rest of the school.)

The district coordinator conducted a rigorous evaluation of student writing achievement. By the end of the year, the teachers loved the program, as did the students, the evaluation showed clear results favoring the use of QUILL, the Board and superintendent were convinced of its merit, and the program was mandated for all teachers of a single grade level, with other grades to be phased in later.

The external trainer was brought back to train the rest of the teachers, the librarians, and all the language arts resource teachers, to provide the teachers with early in-class help with implementation. Principals were given special training on the support roles they could play. Although some of the teachers were resentful about not being included in the decision-making, by the end of the first month all were using QUILL, most with enthusiasm.

The program became a part of the ongoing curriculum, special inservices were planned for new and reassigned teachers before school started each year, and the necessary equipment and support materials were provided at each school. Although the intense attention afforded the program in the first half year was not sustained (i.e., the language arts resource teachers needed to attend to their other work, and the district coordinator needed to think about other grade levels as well) the program had clearly become incorporated into the district and was a routine part of classroom instruction by the middle of its second year of use.

Masepa, a SI Study site, was another adoption of a new practice developed elsewhere (see Figure 10-B). A dynamic curriculum coordinator became aware of the innovation at a National Diffusion Network conference and arranged to bring teachers to a subsequent awareness session. One teacher piloted the program with so much success that she and the curriculum coordinator spread the practice throughout the district. While initially there was inadequate technical and material assistance, eventually these were provided.

Both building and district support -- from the curriculum coordinator, principal, resource teacher, and so on -- were actively provided. In the end, the program was strongly mandated. The particular innovation not only had intrinsic merit but met the needs of the district. Teachers using the program made large amounts of change in their classroom practice.

Another SI Study site, Plummet, is an example of an organizational innovation. (See Figure 10-C.) With the active urging and participation of youth services organizations and the courts, the superintendent and board began to consider the idea of a transitional high school for delinquent youth. With funding from a combination of youth services sources, a program coordinator was hired who was in effect both a district staff person and the building administrator for the school. This person hired staff experienced in working with at-risk youth and worked collaboratively with them to

1



develop the school, assisted by an advisory committee. At last word, although the school had been through a number of changes -- becoming an alternative rather than a transition school, for example -- it had survived the transition from external to district funding.

The innovation in Tindale (SI Study site) was a locally developed remedial reading program that replaced the entire basic English curriculum at the high school level. The program was developed by the director of curriculum and two English department chairs. This team recruited teachers to write the curriculum and also involved the building reading consultants. In combination with the director of curriculum and the department chairs, they monitored and evaluated teachers' use of the new practice as well as provided support and assistance. (See Figure 10-D.)

In the judgment of the original field researchers (see Figure 10-E), Carson was the site in the SI Study that experienced the most organizational change along with shifts in classroom practice. A dense web of leadership and support made possible the development and implementation of the program, called the Individualized Planning Approach. The large configuration of leaders and supporters included a range of external consultants, the superintendent, a program coordinator at the district level, principals, counselors, and teachers. In fact, there was a Teacher/Administrator Management Team that steered the operation of the program.

The program began with volunteer users and later was mandated for the entire district. In the expansion, it was watered down somewhat, but retained enough of its features to substantially alter the behavior of teachers and others.

In the next section, we look more closely at leadership and support configurations and how they varied with the degree of institutionalization that occurred at the study sites.



V. SUCCESSFUL LEADERSHIP AND SUPPORT CONFIGURATIONS: PROCESS AND OUTCOMES

The last examples in Section IV indicate how leadership and support combine to ensure successful implementation of a new project. We found that those sites that attended to the functions listed in Figure 1 throughout the phases of change, and at both the individual and organizational levels, were most likely to end up with enduring programs.

In this section we look at the dynamics of successful leadership and support configurations, through a cross-case analysis of all the sites in the two studies on selected dimensions.

Initiation of Change

There is currently great debate about where change can be initiated if indeed it is to be successful. There are many who argue that it must come from the building -- some who say that only teacher-initiated change can succeed.

In the sites included in this secondary analysis, the impetus for change came from a number of sources: the school, the district, a combination of the two, and the outside. Yet, it is fair to say that for major innovations, district approval and support upfront were required. Of the five sites with full institutionalization -- all with significant innovations -- two were district/building-initiated (Carson and Tindale), two were district office-initiated (Beechwood/Rowley and Masepa), and one was initiated from the outside (Plummet). The last was taken up by the superintendent and school board, and a project director was named to run the program.

District support and involvement may be a necessary condition, but it is not a guarantee that the effort will succeed: we have examples to the contrary, where top-down change efforts failed to root at all. For example, two of the six 0/0 sites were also district initiations (Burton, Perry-Parkdale), two more were outside initiations pushed by the district (Dun Hollow and Adams), and one was a building initiation pushed by the district (Proville). Only one (Seaburg) was a building-initiated effort -- by teachers and parents -- that was unsupported by either the principal or the district, even though the district had made computer project funds available.

In addition, the two 0/l sites, Astoria and Carleton, were district-initiated improvement efforts that existed symbolically at the organizational level.

In the 1/0 sites, we have two examples of building initiation -- one alone (Lido), and one in combination with the district, which mandated the change (Banestown). In these sites, teachers persisted despite lack of support or other leadership. Two other 1/0 sites were district initiations (Calston and Hoover City), and one was an outside initiation to the district (Countryville).

In summary, none of the completely institutionalized efforts were building-initiated, and only one was outside-initiated. Four of five of these



change efforts, or 80 percent, were initiated by the district. In the cases of change efforts less than fully institutionalized, seven of thirteen. or 54 percent, were either building or outside initiations, meaning that 46 percent were district initiations.

What do we make of this pattern? It is clear that while district initiations are not uniformly successful, building and outside initiations fare even less well. Champions for change at the building level need to pay considerable attention to "making a home" for their innovations at the district level, especially if the change is one of any size. Outsiders who would foster improvement need to make sure that the innovation is a good match at both the district and the building levels. And finally, district staff must likewise use the r leadership roles to engage building staff in meaningful change efforts. It is not insignificant that two of the five successful change efforts were ones where district personnel enlisted the active collaboration and participation of building staff from the earliest stages.

Number of Leadership and Support Functions Performed

Change initiators in all of the sites took care of functions in the first stage of the change sequence, but many failed to follow through to the end. Therefore, in general there is a direct relationship between the number of functions performed and institutionalization. This may appear to be obvious, but it is an obvious pitfall as well for change efforts whether large or small.

It is instructive to look systematically at the number of leadership and support functions performed, because some interesting patterns emerge. Figure 11 lists the sites, indicating for each the total number of functions performed by all the roles identified in the case analyses. (The number of roles and composition of the leadership and support configuration are also indicated; these are discussed below.)

In general there is a direct association between the number of functions performed and institutionalization. A glance at the individual Leadership and Support Configuration Checklists would show that functions in the later phases of implementation and institutionalization were not performed in those sites with less than complete institutionalization.

What leaps out from Figure 11 is the high number of functions performed by individuals at the sites for the completely institutionalized innovations, that is, the new practices that were established both at the individual and the organizational levels. Each of them exhibits what we have called "redundancy," that is, more than one person at the site could be identified as having been involved in carrying out a particular function.

Redundancy is typically regarded as a negative characteristic, one that means that time and resources are not being allocated efficiently. However, in a change effort, where individuals are trying out new behaviors and developing new routines, redundancy may signal at least two things of critical importance: one, that a configuration of leaders and support-givers -- constituting a critical mass -- really is present and concerned about the innovation; and two, that a high degree of communication about the innovation may be occurring. Both are essential to the creation of an organizationwide sense of meaning about the new way of doing things.



Redundancy may be one of the "extras" that makes the difference between a real success and a partial one. A critical mass of individuals makes it possible for all the functions to be performed without overburdening any one person. It also makes it possible to maintain interest in the new venture when the going gets more mundane, as it inevitably does. Finally, it goes a long way toward ensuring that "dropped balls" do not occur with frequency.

Carson and Calston are contrasting examples from the SI Study of what we mean here. As Figures 10-E and 11 as well as our discussion in the text have indicated, Carson was a site that successfully undertook and accomplished a very large change effort. A large number of individuals provided assistance and support, not only to the teacher-users, but to one another. Figure 12, from Huberman and Miles (1982), illustrates the web of assistance, leadership, and support in the Carson site. Moreover, the involved individuals had high levels of communication with one another, allowing them to develop a common understanding of the progress of the implementation. By way of contrast, the assistance chart for Calston, a 1/0 site, is much less dense, as Figure 13 portrays [from Huberman and Miles (1982)].

The change effort at one 0/0 site also exhibited redundancy, and was the only less than fully institutionalized case to do so. For us it constitutes an example of "many cooks but little soup." In Adams, from the I&R Study, a great number of individuals were involved, but no one person did much. The central office personnel got the ball rolling, but then withdrew, the outside agency people likewise never made it to the second phase of the effort, leaving only the building resource teacher and other teachers to carry on. The principal was minimally involved as well (see Figure 7-E).

A look at the number of functions tells us something about the sheer amount of activity at individual sites, but success and failure also depend on how many are doing what and what their roles are. Accordingly, we turn to these considerations next.

Number of Roles in and Composition of the Leadership and Support Configuration

There were between three and seven individual roles identified by the sites as having performed various functions. No site that exhibited redundancy had fewer than four roles identified. (We have limited this discussion to the number of roles rather than the number of individuals because it was difficult in some cases to determine how many teachers or counselors, for example, had been involved. Instances of multiple individuals of one role type performing functions occurred across many of the sites regardless of level of institutionalization. Thus we believe that the proportions of total numbers of functions performed by level of institutionalization would remain the same even when the contributions of the multiple individuals were included.)

In each of the completely institutionalized or 1/1 change efforts, there was heavy central office involvement from curriculum coordinators (Beechwood/Rowley, Masepa, Tindale) or program coordinators (Carson and Plummet). (In the case of Plummet, the program coordinator held dual roles as both district and building administrator because the innovation was an alternative school.)



In fact, these individuals performed more functions per role than any other role group, with the exception of department chairs at the Tindale site and a teacher/administrator management team at the Carson site. They performed an average of 18.4 functions per role compared to the 5.6 functions per role for central office personnel in the 0/0 sites. Central office staff performed 4.8 functions per role in the 1/0 sites and 13.5 functions per role in the two 0/1 sites (see Figure 14).

Indeed, in the 1/l sites, individuals in each of the role groups most frequently identified -- principals, resource teachers, teachers, and external assistors -- performed more functions per role than in the other sites. Principals and building specialists in particular were much more active.

In addition to the department chairs and teacher/administrator team mentioned above, superintendents and boards were identified at two sites (Plummet and Carson) as having played leadership and support roles.

The variety and extent of leadership and support for the successful sites confirms the conclusion of Huberman and Miles (1982) about the high-assistance sites in the SI Study:

Generally speaking then, the picture is that high-assistance sites report more frequent, more sustained ongoing help from nearly all sources...: materials, peers, external individuals/agencies, program coordinators, internal consultants, people at home, central office administrators. Only the picture for building administrators is less clear; high-assistance sites do not always have a high principal presence, though it appears that opposition or lack of principal support is more frequent in low-assistance sites (p. 156).

Another significance of leadership and support as they occurred in the successful sites was that they were not provided in top-down fashion, but mutually and in web-like fashion to all configuration participants. Individuals were as likely to receive support as to give it.

Moreover, there was no one single leadership and support configuration across these successful sites, except that they all involved several different roles performing in combination a redundant number of functions as part of a change sequence. As we have seen, district staff, principals, resource specialists, teachers, and external consultants played important roles in at least four of the five 1/1 sites. This suggests three things: (1) leaders and support-givers at both central office and building level are needed; (2) both "line" and "staff" expertise from the two levels are needed; (3) teachers can be mobilized to play leadership and support roles.

We found three leadership and support scenarios emerging from the sites that we considered successful. These scenarios seem sufficiently solid for us to expect to see them emerging at other successful sites as well: we do not, however, assume that these are the only possible configurations for successful leadership and support. In outlining the three scenarios below, we point out the ways in which different leadership and support configurations fulfill the same important functions. We expect to uncover other successful configurations that fit with this general pattern in future research.



Configuration 1: Central Office Champion Working with Principal, Teachers, and Resource Specialists

In the first scenario, a district-level staff person with substantive responsibilities and power (a curriculum coordinator, for example) takes responsibility for coordinating the implementation of a new program. S/he assesses the district's needs, strengths, resources, and current practices, researches and chooses an appropriate program, and sets clear goals and expectations about its use. S/he lays the foundation for implementation by bringing other people into the initiation processes, assigning roles and responsibilities to associated district staff, principals, and/or resource teachers.

By including other school leaders in the process of working through logistical considerations and implementation plans, commitment to the program is built at several levels of the school system. Moreover, building-level staff are often in a better position to make strategic and logistical decisions regarding program implementation. It is usually the principal who is best able to delegate responsibility at the building level and facilitate such things as room reassignments, equipment purchases, and the scheduling of trainings.

The training of teachers may be undertaken by the district-level program coordinator, with or without resource teachers' help, or by an external trainer. In any case, the coordinator oversees the training and monitors initial implementation (him- or herself or through the principals and resource teachers), adjusting procedures in line with his or her understanding of the program and of the teachers' needs. Follow-up training is provided by the external trainer or in-district resource people.

It is the program coordinator who takes responsibility for developing an evaluation procedure and building-level program staff who carry it out. Adjustments are made to the program, and upper-level administrative approval is sought to continue the program indefinitely. If the upper level decisionmakers are convinced that the program meets the district's needs, the program coordinator makes plans for developing permanent structures to support its ongoing use. These involve establishing permanent training and support procedures, developing routines for purchasing needed supplies, and, if necessary, establishing a line item in the district budget for program needs.

Configuration 2: Teacher/Administrator Management Team Working with Others

A second scenario emerged in sites that developed an innovative project locally, then expanded it to involve the entire district. In this scenario, the project developer -- often a teacher -- wins the interest and approval of an immediate supervisor, who helps to sell the idea to a district-level staff person. When the original impetus for a new project comes from a teacher with many other daily responsibilities, a management team may be formed to oversee the project's implementation. This team usually includes the project developer and/or a department head, plus a district-level staff person. The project developer provides many of the ideas for implementation, while upper level staff work out the logistics and facilitate implementation procedures.



Once again, commitment to the project is developed by including other school staff in the coordination, training, and support of teachers. External consultants may or may not help with training, but their outside perspective is often very helpful in working out implementation and institutionalization plans for a project being developed by a site. Obtaining a clear go-ahead and support from a senior curriculum coordinator, assistant superintendent, or superintendent is especially important for an internally developed project.

The management team may work out implementation and support procedures, but a district staff person with knowledge of local politics and accest to influential figures is likely to be best positioned to push through the organizational changes required to institutionalize the project.

Configuration 3: Project Director Working with Others

A third scenario occurred in our case study sites where senior administrative staff identified a district problem and conceived or identified a program to address it, then hired a part- or fulltime staff person to coordinate the project. In this case a group of district decision makers with a stake in a particular problem take responsibility for identifying the most appropriate program, authorizing any necessary changes in district procedures, and hiring someone to carry out the nuts and bolts of implementation.

This staff person is in a different position from an "indigenous" program coordinator or management team because s/he must generally answer directly to an upper level oversight committee, which has final decision-making power. At the same time s/he has been hired to set up the program as s/he sees fit, and this mandate carries a lot of weight.

The project director still must establish procedures for on-the-ground training and support of teachers, which involves soliciting principal and other building-based support and staff involvement, and must establish procedures for project evaluation. The project is often their only responsibility in the district, which makes their situation different from the lead individuals in the other scenarios.

The evaluation of ultimate project outcomes is made by the district-level oversight committee. Organizational institutionalization depends on their approval; once won, setting up these processes and structures often proves simpler than in the other scenarios. The weight of their mandate generally expedites these procedures.



VI. CONCLUSIONS

The preceding analysis has attempted to examine some of the dynamics of leadership and support for different role groups at different phases in 18 school improvement efforts. As we cautioned, our judgments must be tentative and limited to questions of presence/absence rather than quality or quantity of leadership and support activities at individual sites. Moreover, it must be remembered that we are talking about "configurations" of leadership and support, without the implication that there was a conscious team or committee effort. However, it appears that the successful sites did have a considerable amount of communication among the various roles, and at least one such site had a teacher/administrator committee overseeing the change effort.

With the above caveats in mind, we turn to a number of conclusions that are worth noting, for action purposes as well as for further research:

Principals were one of several actors involved in significant change efforts: they did not act alone, but in combination with district and other building staff. Each innovation we studied had both a content and a context. Different role groups were needed to work on different aspects of the innovation effort.

Someone or a group was in charge of the change effort from beginning to end. In all three scenarios, an individual or group took responsibility for seeing that all three phases of the implementation process were attended to. In all three scenarios, district mandates for the innovations were strong, although some innovations had begun as building-based improvement efforts. And in all three scenarios there was adequate building-level support for implementing teachers.

The innovation or new practice was worth the effort that change required. In all the successful sites, regardless of their leadership and support configuration, the innovative project had intrinsic merit and was well suited to both district and building needs. We found that all the successful innovations were significant innovations. Insignificant innovations yielded insignificant results.

A combination of district/building pressure and support was critical. Almost all the innovations we observed were implemented across the district, even though, as noted, some began as building efforts. We found that the enduring innovations were all significant innovations, and for significant innovations to receive adequate attention they had to have the district's mandate, which combined pressure and support. This, in effect, took pressure off principals: though they were responsible, in many cases, for seeing that the innovation was properly implemented in their own buildings, they were not ultimately responsible for the content of the innovation itself. This was the responsibility of a district-level staff person. The principal, in fact, often acted as a kind of liaison between the project director or coordinator and the implementing teachers in the classrooms.

In many sites teachers took on leadership and support functions and were successfully using new practices. Clearly, teachers were the difference between success and failure at a number of sites. They initiated and



developed projects, set them up, supported one another, and so on. Yet in many districts, they are a largely untapped source of leadership and support. Given the scarce supply of time and energy in districts and schools, teachers must be seen as critical partners in change, not its targets.

Many hands were mobilized to do the extra work of change. There is a role to be played for all able-bodied district and school personnel. Significant change efforts appeared to involve at least four, and often more, different role groups in carrying out critical leadership and support functions. What is more, the successful change efforts exhibited what we have called redundancy, that is more than one role performed a function.

Successful sites organized for the long haul. An innovation needs an advocate to take responsibility for its implementation and institutionalization, but part of the task of implementation is to establish support structures so that the advocate's personal involvement is no longer required at every point: the innovation becomes self-sustaining. A key point in the implementation of an innovation occurs during the initiation phase, in setting the context and generating support and involvement at several levels of organization.

Another key point occurs after the initial implementation: the program coordinator must evaluate the program to date, make adjustments, and push the implementing teachers on to a second stage of implementation in which they no longer need constant attention and support. Nevertheless, the program will need ongoing structures for providing necessary support and assistance to implementing teachers. This will be especially crucial after the initial excitement and newness has worn off and teachers and others settle in for business as usual.

Leadership and support took many forms and came from many sources. There were many vehicles for leadership and assistance as identified by Huberman and Miles (1982): they included event-linked assistance such as workshops and site visits; and ongoing assistance that was based on more immediate needs of users and others. Our experience is that districts and schools tend to focus on the former type of assistance, events that consume much energy to plan and pull off, and neglect the latter. Assistance also ranged from directive to non-directive in its focus. In other words, some support was centered on the users, other was innovation- or assister-centered.

<u>Leaders and support-givers in successful sites not only gave assistance but received it themselves</u>. This is a simple but often overlooked truth: everybody needs support in a time of significant change. Leaders and support-givers, from superintendents to principals and teachers, were learning themselves even as they assisted others.

The collaboration and support structures of successful change efforts are models for routine district/school operations, not a single recipe for who should do what. Rather, one should take note of what needs to be done and make sure one or more people are doing it. The notion of a configuration does not suggest that these individuals meet as a team or other formal group: however, ongoing communication is vital to coordination of activity and strategic forward movement.



Successful educational change efforts are a model for what should be general operating principles in districts and schools: collaborative efforts that take into consideration the perspectives of all affected and that pay attention to the functions that must be performed for any effort, large or small, to become a part of individual and organizational practice.



VII. RECOMMENDATIONS FOR FURTHER RESEARCH

Much of the further research stimulated by this analysis lends itself to being conducted side-by-side with technical assistance or other support efforts. The suggestions include:

Examine building change efforts as compared to buildings engaged in districtwide change. Most of the change efforts we studied were districtwide by time researchers made their visits, even though some of them had begun as building initiatives. It would be instructive to look at successful building efforts that remain so. Nevertheless, our hypothesis is that most building change efforts of any size require some outside -- i.e., district or external -- leadership and support to be sustained. Building-level leaders and support-givers need support, too.

Look in more detail at how configurations of leadership and support operate. A focus on the quality, quantity, and numbers of individuals involved -- who does what when and how -- would be instructive. Understanding what we have called "redundancy" -- both the amount and any efficacy associated with it -- would also be useful.

Specify the critical skills for working with the context of an innovation -- the organizational techniques -- and ensure that they are part of leadership and support training. Much is known about the skills that are needed to successfully bring about change, but it appears that specific techniques for organizational-level change are less well known by school people. Such skills would include making use of non-expert outsiders in the support of change (see below).

Map the communication patterns of leadership and support configurations. It would be useful to know the extent to which configurations in change efforts are purposive, explicit operations with formal communication arrangements or crescive, unplanned clumps of individuals doing individual tasks as they see fit. Do some configurations have highly centralized communication coordinators, others informal, needs-based exchanges, etc.?

Study selected schools and districts that have restructured to make leadership and support-giving a part of everybody's job description. There are
an increasing number of districts and schools that have attempted to change
the structure of educational delivery. In particular, localities are exploring different ways to discharge both the custodial or caretaking function and the delivery of education without making the individual teacher
the sole provider whose absence from the classroom is viewed as a
gap in services rather than a normal part of the school routine.
Documenting these efforts is a critical part of fueling sustained reform.

Calculate the costs of change efforts in terms of leadership and support functions and, where possible, compute the trade-offs that can be made and their cost consequences. Thanks to the preceding studies of school improvement efforts, we have a fairly good idea of what it takes to achieve successful implementation. If future research not only investigated the who-what-when-and-how but also made some effort to associate costs and benefits -- time expended, time saved, etc. -- we could begin to make some informed judgments about the real costs of reform at the point of impact.



Analyze the impact of budget cuts on the number and type of central office positions and district operations. In the few years since the two studies we analyzed were conducted budget cuts in many districts have decreased the number of central office and other "staff" positions. What is the impact of cuts on district operation, especially the initiation and conduct of school improvement efforts? What are districts/schools doing to compensate for lost capacity?

<u>Document the useful roles that non-expert outsiders -- parents, community, business -- can play in helping to create space for change</u>. The change literature has focused primarily on expert outsiders and their role in change. What are some useful roles that non-expert outsiders can play; what are the costs and benefits; and how can these be promoted?



REFERENCES

- Cates, C.S. A Preliminary Inventory of Educational Linking Agent Functions with Brief Explanations (San Francisco, CA: Far West Laboratory for Educational Research and Development, 1978).
- Crandall, D., and Associates. <u>People</u>, <u>Policies</u>, and <u>Practices</u>: <u>Examining</u> the Chain of School Improvement (Andover, MA: The NETWORK, Inc., 1982).
- Clark D., Lotto, L., & McCarthy, M. "Factors Associated with Success in Urban Elementary Schools," Phi Delta Kappan, March 1980, 467-470.
- Cox, P.L. "Complementary Roles in Successful Change," <u>Educational</u> <u>Leadership</u>, November 1983.
- Decad, J.L., Madey. D.L., Royster, E.C., & Baker, R.F. <u>Building Capacity</u> for Improvement of Educational Practice: An Evaluation of NIE's State <u>Dissemination Program: Volume III: A Study of Linker Activities and Roles</u> (Durham, NC: NTS Research Corporation, April 1981).
- Fullan, M. "School District and School Personnel in Knowledge Utilization," in <u>Improving Schools: Using What We Know</u>, R. Lehming and M. Kane, eds. (Beverly Hills, CA: Sage, 1981).
- Fullan, M. <u>The Meaning of Educational Change</u> (New York: Teachers College Press, 1982).
- Hall, G.E., & Hord, S.M. <u>Change in Schools: Facilitating the Process</u> (Albany, NY: SUNY Press, 1987).
- Huberman, A.M., & Miles, M.B. Innovation Up Close: A Field Study in Twelve School Settings (Andover, MA: The NETWORK, Inc., 1982).
- Huberman, A.M. "School Improvement Strategies That Work: Some Scenarios," Educational Leadership, November 1983.
- Loucks-Horsley, S., French, L., Rubin, A., & Starr, K. <u>The Role of Teacher Incentives and Rewards in Implementing a Technological Innovation</u>, Final Report of NIE Grant No. NIE-G-83-0062 (Andover, MA: The NETWORK, Inc., 1985).
- Loucks, S.F., & Hall, G.E. "Assessing and Facilitating the Implementation of Innovations: A New Approach," <u>Educational Technology</u>, 1977, 17(2), 18-21.
- Miles, M.B. "Unraveling the Mystery of Institutionalization," <u>Educational Leadership</u>, November 1983.
- Nash, N., & Culbertson, J. (eds.) <u>Linking Processes in Educational</u>
 <u>Improvement</u>: <u>Concepts and Applications</u> (Columbus, OH: University
 Council for Educational Administration, 1977).



FIGURE 1

Leadership and Support Functions for School Improvement

Assess needs, strengths, and resources Assess current practices Set clear goals, objectives, and expectations Select or develop a new practice Create awareness Assign roles and responsibilities Establish commitment Develop game plans Allocate resources Provide materials Arrange training Make schedule and organizational changes in school Help teachers plan implementation Provide initial training Provide problem-solving and trouble-shooting support Provide follow-up training Monitor classrooms for use Evaluate implementation outcomes Evaluate ultimate outcomes Train new or reassigned staff Conduct follow-up and refresher sessions Incorporate program into curriculum guidelines Purchase new materials and supplies routinely Establish a budget line item



FIGURE 2

Phases of School Improvement

INITIATION

- 1. Assess needs, strengths, and resources
- 2. Assess current practices
- 3. Set clear goals, objectives, and expectations
- 4. Select or develop a new practice
- 5. Create awareness
- 6. Assign roles and responsibilities
- 7. Establish commitment
- 8. Develop game plans
- 9. Allocate resources
- 10. Provide materials
- 11. Arrange training
- 12. Make schedule and organizational changes in school
- 13. Help teachers plan implementation

IMPLEMENTATION

- 14. Provide initial training
- 15. Provide problem-solving and trouble-shooting support
- 16. Provide follow-up training
- 17. Monitor classrooms for use
- 18. Evaluate implementation outcomes
- 19. Evaluate ultimate outcomes

INSTITUTIONALIZED

- 20. Train new or reassigned staff
- 21. Conduct follow-up and refresher sessions
- 22. Incorporate program into curriculum guidelines
- 23. Purchase new materials and supplies routinely
- 24. Establish a budget line item



FIGURE 3

School Improvement Study Sites

	GEOGRAPHIC AREA	SETTING	NUMBER OF SCHOOLS IN DISTRICT	NUMBER OF PUPILS IN TARGET SCHOOLS	ADOPTING SCHOOLS		PUPILS INVOLVED		SES LEVEL	
SITE					START	END	START	END	DISTRICT	SCHOOL
ASTORIA	Hortheast	Small city	l elementery l jr-er MS (both perochiel)	270-Hitchell	lO(in Archdio- coss)	92(in Azchdio- coss)	70	70	middle to upper middle	middle to upper middle
BANESTOWN	Southeast	Rurel	3 elementary 2 middle 1 high sch*l	850-Smithson 215-Cerington 550-Samestown middle	1	4	30	95	middle te lower middle	middle to lower middle
BURTON	Hi dvest	Suburban	12 slementary 5 middle 4 high sch*le	1150-Queen HS 1100-Teylor HS 1138-Burton HS	3	3	4 cless- rooms	6 class- rooms	upper middle to lower	upper middle
CALSTON	Hiduest	Urbon conter	25 elementery 6 jr. highe 4 high ech*le	500-Lyles 500-Reston	2	2	4 cless-	3 cless	lower	to lover
Libo	Mortheest	Rurel	l elementery l middle l high sch*l	585-Lido NS	1	1	47clossos	2 closes 28 stu- dente	upper middle to lower middle	upper midd to lover
HASEPA	Pleine	Rurel	6 elementory 1 jr-er MS	247-Jefferson	•	6	17 class-	36 class-	middle to lover	lover middle to
PERRY-PARKMALE	Hidwest	Suburban	22 elementary 4 hr. high 2 high sch*lo	2300-Aldrin MS 2300-Perry HS	2	2		50	lower ilower :	lover lover middle to lover
CARSON	Plaine	Rurol	l elementery l jr./er. HS	314-Elementory 354-High sch'l	2	2	60-65	668	upper middle to lover	upper middle to lover
DUN HOLLOW	Hortheast	opraul Urban	7 elementory 2 jr. high 1 high och*1	380-Tortoiss Area 283-Cerr	2	2	2 class- rooms	2 class-	upper middle to lower	upper middle to lower
PLUMET	Southwest	Contor Contor	ll high sch*le	550-Sentley	1	1	228	550	lover middle to lover	lover middle to lover
PROVILLE	Southwest	Urben epravl	13 elementory & jr. HS 4 high och*le	2100-Endroses HS 19H0-Elencote HS 250-Elburrose HS 1-Vecville HS	•	0	16	0	middle to upper middle	middle to
TINDALE	Hidwest	Oprawl Urbon	17 elementary 6 jr. HS 2 high ach la	3090-Eest 3250-West	2	2	9 cless- rorms (Tindate East only)	29 class- rnows (Tindets East only)	middle to lower middle	East-lower West-lower middle to lower

SES: undertine shows asjority level, if present

from: Huberman & Miles, 1982, p. 51



FIGURE 4

I&R Study Sites Local Contexts: Structural Properties

SITE	GEOGRAPHIC		NUMBER OF SCHOOLS IN	NUMBER OF PUPILS IN TARGET	ADOPTING SCHOOLS		PUPILS INVOLVED		SES LEVEL	
3115	AREA	SETTING	DISTRICT	SCHOOLS	START	END	START	END	DISTRICT	SCHOOL
Adams	Northeast	Medium- sized city	39	- elementary 800 - M.L. King Middle Schl. - high school	3	-	MLK-2 class- rooms	-	Lower to middle	Lower to middle
Seaburg	Northeast	Urban	123	300 - Heath Elem.	1	-	2 class- rooms	_	Lower to lower- middle	Lower
Country- ville	Northwest	Rural	7 - elementary 3 - middle 2 - high schl.	900 - Mountain Jr. High	2	1	MJH - 2 class- rooms	(2 class- rooms)	Well-to-do to poorest	Well-to-do to
Beechwood/ Rowley	Mid- Atlantic	2 towns (suburban)	6000 students	360 - FDR Elem. 350 - Van Ness Elem.	30 class- rooms	All 4-5 class- rooms	FDR - 2 VanNess-2	All 4-5 classrooms together	Upper middle to lower- middle	FDR-working to middle Van Ness-upper middle to middle
Carleton	Northeast	Suburban	3 - elementary 1 - middle 1 - high schl.	1629 Elem./Middle	5	4	10 class- rooms	8 class- rooms	Upper- middle to middle	Upper-middle to middle
Hoover City	Northeast	Medium- sized city	37	300 - Martin Houseman Elem.	2 4	2	MH - 2 classrooms	2 class- rooms	Lower to lower-middle to upper- middle	Lower



FIGURE 5

Case Study Sites by Dimensions of Institutionalization

Organizational Dimension

Dun Hollow (I)* (Fig. 7-A) Proville (I) (Fig. 7-B) Burton (I) (Fig. 7-C)			Presence	
Absence Absence Absence Absence O/O Seaburg (II) (Fig. 7-E) Adams (II) (Fig. 7-E) Perry-Parkdale (I) (Fig. 7-F) Countryville (II) (Fig. 9-A) Alston (I) (Fig. 9-B)	0/1	Astoria (I) (Fig. 8-A) Carleton (II) (Fig. 8-B)		
	Presence	1/0	Alston (I) (Fig. 9-B) Lido (I) (Fig. 9-C) Banestown (I) (Fig. 9-D)	1/1

^{*} I=S.I. Study sites II=I&R Study sites



FIGURE 6

Leadership and Support Configuration Checklist Site ______

IN:	ΙT	IΑ	T	I	0	N
-----	----	----	---	---	---	---

		EF*	DS	P	RT	T	0	0
1.	Assess needs, strengths, and resources							
2.	Assess current practices							
3.	Set clear goals, objectives, and expectations							
4.	Select or develop a new practice			-				
5.	Create awareness					_		
6.	Assign roles and responsibilities							
7.	Establish commitment							
8.	Develop game plans							
9.	Allocate resources					_		
10.	Provide materials							_
11.	Arrange training					_	_	
12.	Make schedule and organizational changes in school					_		
13.	Help teachers plan implementation							
14.								
15. 16.	The state of the state of the state of the support							
17.	Provide follow-up training							
18.	Monitor classrooms for use							
	Evaluate implementation ou comes							
19.	Evaluate ultimate outcomes							
INST	ITUTIONALIZATION							
20.	Train nes ar reassigned staff							
21.	Conduct follow-up and refresher sessions							
22.	Incorporate program into curriculum guidelines							
	mustate the supplies touchery							
24.	Establish a budget line item							

TOTAL NUMBER OF FUNCTIONS PERFORMED:

* EF = External Facilitator(s)

DS = District Staff

P = Principal(s)

RT = Resource Teacher(s)

T = Teacher(s)

0 = Other(s)



FIGURE 7-A

Leadership and Support Configuration Checklist Site _____ Dun Hollow (I)____

INITIATION

		EF	DS	P	RT	T	0	0
1.	Assess needs, strengths, and resources			•				
2.	Assess current practices			_		_		
3.	Set clear goals, objectives, and expectations		_				х	•
4.	Select or develop a new practice						x	
5.	Create awareness			_				
6.	Assign roles and responsibilities		x					
7.	Establish commitment				_			
8.	Develop game plans							
9.	Allocate resources						_	
10.	Provide materials	x						
11.	Arrange training							
12.	Make schedule and organizational changes in school							
13.	Help teachers plan implementation	Х						
	EMENTATION Provide initial training	x						
15.		-				<u> </u>	, ·	<u>-</u>
16.	Provide follow-up training							
17.	Monitor classrooms for use							
18.				_	-		_	_
19.	Evaluate ultimate outcomes							,
	ITUTIONALIZATION				_			
	Train new or reassigned staff							
	Conduct follow-up and refresher sessions							
	Incorporate program into curriculum guidelines							.
23.		_						
24.	Establish a budget line item		-					
ATOTA	L NUMBER OF FUNCTIONS PERFORMED: 7 =	3	1	-	_	1	2	_

EF = External Facilitator(s) = Program Developer

DS = District Staff = Elementary Education Director

P = Principal(s)

RT = Resource Teacher(s)

T = Teacher(s)

43

0 = 0ther(s) = Superintendent



FIGURE 7-B

Leadership and Support Configuration Checklist Site Proville (I)

INITIATION

		EF	DS*	P	RT	T*	0	^
1.	Assess needs, strengths, and resources							
	Assess current practices		x			_		
3.	Set clear goals, objectives, and expectations		X			_		
4.	Select or develop a new practice		x				-	
5.	Create awareness					<u>^</u>		
6.	Assign roles and responsibilities							
7.	Establish commitment							
8.	Develop game plans							
9.	Allocate resources							
10.	Provide materials							X
11.	Arrange training				_			X
12.	Make schedule and organizational changes in school	_						X
13.	Help teachers plan implementation	_						

IMPLEMENTATION

14. Provide initial training
15. Provide problem-solving and trouble-shooting support X X
16. Provide follow-up training
17. Monitor classrooms for use
18. Evaluate implementation outcomes
19. Evaluate ultimate outcomes

INSTITUTIONALIZATION

20. Train new or reassigned staff
21. Conduct follow-up and refresher sessions
22. Incorporate program into curriculum guidelines
23. Purchase new materials and supplies routinely
24. Establish a budget line item

TOTAL NUMBER OF FUNCTIONS PERFORMED: 9 = 4

- EF = External Facilitator(s)
- DS = District Staff = Coordinator of Career/Vocational Education
- P = Principal(s)
- RT = Resource Teacher(s)
- T = Teacher(s)
- 0 = Other(s) = Project Director
- 0 = Other(s) = Superintendent
- * = Same person: A teacher initiated the concept for the project, "sold" it to the superintendent, and then moved into position of district Coordinator of Career/Vocational Education.



45

FIGURE 7-C

Leadership and Support Configuration Checklist Site _____Burton (I)

INITIA'	ΤI	O}
---------	----	----

_		EF	DS	P	RT	T	^	_
1.	Assess needs, strengths, and resources		x					0
2.	Assess current practices		<u></u>					
3.	Set clear goals, objectives, and expectations							
4.	Select or develop a new practice		Y Y	-				
5.	Create awareness			^_		х		
6.	Assign roles and responsibilities							
7.	Establish commitment		v					
8.	Develop game plans		^					
9.	Allocate resources							
	Provide materials		 -					
11.	Arrange training							
12.	Make schedule and organizational changes in school		^_					
13.	Help teachers plan implementation		 -					
			X					

IMPLEMENTATION

	Provide initial training	x
15.	Provide problem-solving and trouble-shooting support	
16.	Provide follow-up training	
17.	Monitor classrooms for use	
18.	Evaluate implementation outcomes	
	Evaluate ultimate outcomes	

INSTITUTIONALIZATION

20. Train new or reassigned staff							
21. Conduct follow-up and refresher sessions							
22. Incorporate program into curriculum guidelines							 _
23. Purchase new materials and supplies routinely							 _
24. Establish a budget line item							 _
							 _
TOTAL NUMBER OF FUNCTIONS PERFORMED: 14 =	1	11	1	~	1	_	

EF = External Facilitator,s)

DS = District Staff = Coordinator for Social Studies

P = Principal(s)

RT = Resource Teacher(s)

T = Teacher(s)

0 = 0ther(s)



FIGURE 7-D

Leadership and Support Configuration Checklist Site ____Seaburg (II)

INITIATION

P RT	T	0	•
·			
	 -	 -	
	X	x	
		x	
	X		
	<u>x</u>		
	x		
	<u>X</u>		
			_
-			

IMPLEMENTATION

L4.	Provide_initial_training x
15.	Provide problem-solving and trouble-shooting support
L6.	Provide follow-up training
	Monitor classrooms for use
	Evaluate implementation outcomes
9.	Evaluate ultimate outcomes
ST	ITUTIONALIZATION

IN

_							
20. Train new or resisigned staff							
21. Conduct follow-up and refresher sessions				_			 _
22. Incorporate program into curriculum guidelines						_	 _
23. Purchase new materials and supplies routinely							 _
24. Establish a budget line item							 _
							 _
TOTAL NUMBER OF FUNCTIONS PERFORMED: 13 =	2	~	_	_	•	•	

EF	=	External	Pac (1)	itator(e)	- 011711	T



DS = District Staff

P = Principal(s)

RT = Resource Teacher(s)

T = Teacher(s)

^{0 =} Other(s) = Parent

Leadership and Support Configuration Checklist Site ____Adams (II)

INITIATION

		EF	DS	P	RT	т	0	0
1.	Assess needs, strengths, and resources					<u> </u>		 _
2.	Assess current practices							
3.	Set clear goals, objectives, and expectations							
4.	Select or develop a new practice	x	XX					
5.	Create awareness							
6.	Assign roles and responsibilities		X					
	Establish commitment							
8.	Develop game plans		x				XX	
9.	Allocate resources				Y		^_	
10.	Provide materials		x					
11.	Arrange_training		x			 -	 -	
12.	Make schedule and organizational changes in school						<u> </u>	
	Help teachers plan implementation						_	

IMPLEMENTATION

14. Provide initial training to teachers (a) to students (b)	X(a)	X(b)	X(b)
15. Provide problem-solving and trouble-shooting support	X	X	(0)
16. Provide follow-up training to teachers (a) to students (b)		X(b)	X(b)
17. Monitor classrooms for use		X	
18. Evaluate implementation outcomes		x	<u>x</u>
19. Evaluate ultimate outcomes		"——	

INSTITUTIONALIZATION

20. Train new or reassigned staff
21. Conduct follow-up and refresher sessions
22. Incorporate program into curriculum guidelines
23. Purchase new materials and supplies routinely
24. Establish a budget line item

EF = External Facilitator(s) = QUILL Trainer

DS = District Staff = Local Facilitator (Language Arts Coordinator); (Math Supervisor)

P = Principal(s)

RT = Resource Teacher(s) = Computer Teacher

T = Teacher(s)

0 = Other(s) = Regional Office Staff

TOTAL NUMBER OF FUNCTIONS PERFORMED:



3

FIGURE 7-F

Leadership and Support Configuration Checklist Site Perry-Parkdale (I)

INITIATION

		EF_	DS	P	RT	T	0	0
1.	Assess needs, strengths, and resources		x					<u> </u>
2.			x					
3.	Set clear goals, objectives, and expectations		X					
4.	Select or develop a new practice		x	x		x		
5.	Create avareness							
6.	Assign roles and responsibilities							
7.	Establish commitment							
8.	CALLED THE TOTAL CONTROL OF THE TOTAL CONTROL OT THE TOTAL CONTROL OF TH		x					
9.	Allocate resources		X					
10.		х	x					
11.	Arrenge training		\overline{x}					
12.	THE THEFT THE STREET CHAILES IN SCHOOL	_			_			
13.	Holp teachers plan implementation							
	EMENTATION Provide initial training	x						
15.	Provide problem-solving and trouble-shooting support	<u> </u>						
16.	Provide follow-up training	x				x	x	
17.	Monitor classrooms for use							
18.	Evaluate implementation outcomes	X	x					
19.	Evaluate ultimate outcomes	X	<u>x</u>					
INST	ITUTIONALI2ATION		-					
20.	Train new or reassigned staff							
21.	Conduct follow-up and refresher sessions							
22.	Incorporate program into curriculum guidelines				·			
23.	Purchase new materials and supplies routinely							
24.	Establish a budget line item			 -				

5

::

1

2

EF = External Facilitator(s) = NDN Developer/Demonstrator

DS = District Staff

P = Principal(s)

RT = Resource Teacher(s) = Counselors

T = Teacher(s)

53

0 = Other(s) = Program Director

TOTAL NUMBER OF FUNCTIONS PERFORMED:



FIGURE 8-A

Leadership and Support Configuration Checklist Site ___Astoria (I)___

INITIATION

	EF	DS	P	RT	T	0	_
1. Assess needs, strengths, and resources		X					0
2. Assess current practices		<u>x</u>					
3. Set clear goals, objectives, and expectations						x	
4. Select or develop a new practice						<u>x</u>	
5. Create awareness		Y				x	
6. Assign roles and responsibilities		- ~					
7. Establish commitment		<u> </u>					
8. Develop game plans							
9. Allocate resources							
10. Provide materials		<u>~</u>					
11. Arrange training		<u>~</u>					
12. Make schedule and organizational changes in school							
13. Help teachers plan implementation			x			———	
IMPI.FMFNTATION							

IMPLEMENTATION

14. Provide initial training	x				
15. Provide problem-solving and trouble-shooting support			x		
16. Provide follow-up training	x				
17. Monitor classrooms for use	-	x			
18. Evaluate implementation outcomes					
19. Evaluate ultimate outcomes		x			

INSTITUTIONALIZATION

20. Train new or reassigned staff	Y	
21. Conduct follow-up and refresher sessions		
22. Incorporate program into curriculum guidelines	X	
23. Purchase new materials and supplies routinely	X X	
24. Establish a hudget line item	X	
TGTAL NUMBER OF PURCTIONS DEPENDANCE.		

TGTAL NUMBER OF FUNCTIONS PERFORMED: 23 = 2 13 3 - 1 4 -

EF = External Facilitator(s) = NDN Developer/Demonstrator

DS = District Staff = Curriculum Coordinator

P = Principal(s) = Vice Principal

RT = Resource Teacher(s)

T = Teacher(s)

0 = Other(s) = District Curriculum Committee



Leadership and Support Configuration Checklist Site ____Carleton (II)

INITIATION

	EF	DS	P	RT	т	•	0
1. Assess needs, strengths, and resources		X					
2. Assess current practices		x					
3. Set clear goals, objectives, and expectations		×					
4. Select or develop a new practice		X					
5. Create awareness		x					
6. Assign roles and responsibilities		X	Y				
7. Establish commitment		···					
8. Develop game plans		x					
9. Allocate resources		X					
10. Provide materials		X					
11. Arrange training		<u>x</u>					
12. Make schedule and organizational changes in s	chool						
13. Help teachers plan implementation	X						

IMPLEMENTATION

14. Provide initial training	x	
15. Provide problem-solving and trouble-shooting support		
16. Provide follow-up training		
17. Monitor classrooms for use		
18. Evaluate implementation outcomes	x	
19. Evaluate ultimate outcomes		

INSTITUTIONALIZATION

20. Train new or reassigned staff	x	
21. Conduct follow-up and refresher sessions		
22. Incorporate program into curriculum guidelines	X	
23. Purchase new materials and supplies routinely	X	
24. Establish a budget line item		

14

EF = External Facilitator(s) = QUILL Trainer

TOTAL NUMBER OF FUNCTIONS PERFORMED: 18 =

DS = District Staff

P = Principal(s)

RT = Resource Teacher(s)

T = Teacher(s)

0 = 0ther(s)



FIGURE 9-A

Leadership and Support Configuration Checklist Site ____Countryville (II)

INIT	IATION							_
		EF_	D\$	P	RT	<u>T</u>	<u> </u>	<u> </u>
1.	Assess needs, strengths, and resources							
2.	Assess current practices							
3.	Set clear goals, objectives, and expectations							
4.	Select or develop a new practice	x	x					
5.	Create awareness							
6.	Assign roles and responsibilities							
7.	Establish commitment							
8.	Develop game plans							
9.	Allocate resources		X					
10.	Provide materials		x	X		_		,
	Arrange training	<u>x</u>	X					
12.	Make schedule and organizational changes in school					x		
13.	Help teachers plan implementation							
	Provide initial training							
	Provide problem-solving and trouble-shooting support					X		
16.								
17.	Monitor classrooms for use					X		
18.	Evaluate implementation outcomes	,				x		
19.	Evaluate ultimate outcomes							
	TITUTIONALIZATION							
20.								
21. 22.								
23.								
24.			_					
£4.	Diception - Sander time trem			-				
TOTA	L NUMBER OF FUNCTIONS PERFORMED: 11 =	2	4	1	-	4	-	•

EF = External Facilitator(s) = Local Certified QUILL Trainer

DS = District Staff = Computer Coordinator

P = Principal(s)

RT = Resource Teacher(s)

T = Teacher(s)

0 = 0ther(s)



FIGURE 9-B

Leadership and Support Configuration Checklist Site ___Calston_(I)____

INIT	IATION	EF	DS	P	RT	т	0	0
1	Assess needs, strengths, and resources		<u> </u>					
	Assess current practices		x		_			
2.	Set clear goals, objectives, and expectations		x					
3.	Select or develop a new practice		X	x				
4.	Create awareness		<u> </u>	x				
J.	Assign roles and responsibilities			x				
6.	Establish commitment							
/.								
8.				x				
	Allocate resources	x						
10.	Provide materials	^_	x		_			
	Arrange training		Λ					
	Make schedule and organizational changes in school	_			_			
13.	Help teachers plan implementation							
IMPL	EMENTATION							
14.	Provide initial training	x						
15.	Provide problem-solving and trouble-shooting support	x				X		
	Provide follow-up training	x						
17.	Monitor classrooms for use		_					
18.	Evaluate implementation outcomes	_	_					
	Evaluate ultimate outcomes							
INST	ITUTIONALIZATI <u>ON</u>							
								
20.	Train new or reassigned staff		_					
	Conduct follow-up and refresher sessions							
	Incorporate program into curriculum guidelines							
23.	Purchase new materials and supplies routinely							
	Establish a budget line item					,		
		-						
TOTA	L NUMBER OF FUNCTIONS PERFORMED: 15 =	4	6	4	-	1	-	-
-017								

EF = External Facilitator(s)

DS = District Staff = Coordinator of Instruction

P = Principal(s)

RT = Resource Teacher(s)

T = Teacher(s)

0 = 0ther(s)



FIGURE 9-C

Leadership and Support Configuration Checklist Site Lido (I)

INITIATION

_		EF	DS	10	RТ	_	_	
1.	The resources				K1	T	0	0
2.	Assess current practices							x
3.	Set clear goals, objectives, and expectations							<u>x</u>
4.	Select or develop a new practice		х	X				
5.	Create awareness			^		x		x
s.	Assign roles and responsibilities							
	Establish commitmen.			x				
8.	barelop game plans						x	X
	Allocate resources							X
	Provide materials							x
	Arrange training							X
12.	Make schedule and organizational changes in school							
13.	Help teachers plan implementation							
IMPLI 14	Provide initial training							
	Provide initial training	X						
16.	Provide problem-solving and trouble-shooting support	X						
	Provide follow-up training	X					_	
10	Monitor classrooms for use							
10.	Evaluate imp;ementation outcomes							
19.	Evaluate ultimate outcomes							
INST	TUTIONALIZATION						<u> </u>	
20.	Train new or reassigned staff							
21.	Conduct follow-up and refresher sessions					x		
22.	Incorporate program into curriculum guidelines				·			
23.	Purchase new materials and supplies routinely							
24.	Establish a budget line item							
TCTAL	NUMBER OF FUNCTIONS PERFORMED: 16 =	3	1	2	•	2	1	7

EF = External Facilitator(s) = NDN Developer/Demonstrator

DS = District Staff

P = Principal(s)

RT = Resource Teacher(s)

T = Teacher(s)

0 = Other(s) = Superintendent

0 = Other(s) = Department Chair





FIGURE 9-D

Leadership and Support Configuration Checklist Site ____Banestown (I)

INITI	ATION

		EF	DS	P	RT.	т	0	0
1.	The respective to the respecti		X			<u> </u>		
2.	The state of the s		x					
3.	The state of the s			x				
4.	Select or develop a new practice		x	X		X		
5.	Create awareness					^_		_
6.	Assign roles and responsibilities							
7.	Establish commitment	-	x					
8.	Develop game plans			X				
9.	Allocate resources		x	^_	x			
10.	Provide materials		<u>x</u>					
11.			$\frac{\hat{x}}{\hat{x}}$					
12.	Make schedule and organizational changes in school		x					
13.	Help teachers plan implementation		^_	x				
14.	Provide initsal training	x_						
15.	Provide problem-solving and trouble-shooting support				X			
16.	Provide follow-up training							
17.	Monitor classrooms for use			x				
18.	Evaluate implementation outcomes		x	'	x			
19.	Evaluate ultimate outcomes							
INST	ITUTIONALIZATION							
20.	Train new or reassigned staff							
21.	Conduct follow-up and refresher sessions							
22.	Incorporate program into curriculum guidelines							
23.	Purchase new materials and supplies routinely							
24.	Establish a budget line item							

1

EF = External Facilitator(s) = NDN Developer/Demonstrator

DS = District Staff

P = Principal(s)

RT = Resource Teacher(s) = Lab Teachers

TOTAL NUMBER OF FUNCTIONS PERFORMED: 19 =

T = Teacher(s)

0 = 0ther(s)



FIGURE 9-E

Leadership and Support Configuration Checklist Site Hoover City (II)

IN	Ţ	T	I	٨	T	I	0	N

		EF	DS	p	RT	T	0	_
1.	Assess needs, strengths, and resources						<u>v</u>	0
2.								
3.	Set clear goals, objectives, and expectations						x	
4.	Select or develor a new practice							
5.	Create avareness			x			x	
6.	Assign roles and responsibilities							
7.								
8.	Develop game plans							
9.	Allocate resources		x			X		
10.			<u>x</u>					
11.	Arrange training		<u>x</u>	 				
12.	Make schedule and organizational changes in school							
13.	Help teachers plan implementation	x						
				~				
IMPL	EMENTATION							
								
14.	Provide initial training	x						
15.	Provide problem-solving and trouble-shooting support	<u>x</u>		x				
16.	Provide follow-up training	X						
	Monitor classrooms for use			x				
18.	Evaluate implementation outcomes			^_				
19.	Evaluate ultimate outcomés							
INST	ITUTIONALIZATION							
	_							
20.	Train new or reassigned staff					.,		
21.	Conduct follow-up and refresher sessions					X		
22.	Incorporate program into curriculum guidelines					<u>^</u>		
23.	Purchase new materials and supplies routinely							
24.	Establish a budget line item			 _				
IATOT	NUMBER OF FUNCTIONS PERFORMED: 17 -	4	4	3	_	•		
		-	-	3	-	3	3	_

EF = External Pacilitator(s) = QUILL Trainer

DS = District Staff = District Computer Coordinator

P = Principal(s) = Vice Principal

RT = Resource Teacher(s)

T = Teacher(s)

0 = Other(s) = Assistant Superintendent



Leadership and Support Configuration Checklist Site Beechwood/Rowley (II)

<u>INITIATION</u>

	EF	DS	P	RT	T	^	•
1. Assess needs, strengths, and resources		x					
2. Assess current practices		x					
3. Set clear goals, objectives, and expectations		X					
4. Select or develop a new practice		X					
5. Create awareness		X					
6. Assign roles and responsibilities		x					
7. Establish commitment		x					
8. Develop game plans		x	-	- ^ -			
9. Allocate resources		<u>x</u>					
10. Provide materials							
11. Arrange training		<u>~</u>		^			
12. Make schedule and organizational changes in school							
13. Help teachers plan implementation				- }			

IMPLEMENTATION

14. Provide initial training	x				
15. Provide problem-solving and trouble-shooting support		x	X		
16. Provide follow-up training			<u>X</u>	<u>x</u>	
17. Monitor classrooms for use			<u></u>		
18. Evaluate implementation outcomes		<u> </u>	X	x	
19. Evaluate ultimate outcomes					

INSTITUTIONALIZATION

20. Train new or reassigned staff		x		¥			
21. Conduct follow-up and refresher sessions					<u> </u>		
22. Incorporate program into curriculum guidelines		<u>x</u>		x			
23. Purchase new materials and supplies routinely		x	x		_		
24. Establish a budget line item		х	x	 -			
TOTAL NUMBER OF FUNCTIONS PERFORMED: 38 =	1	17	4	12	4	-	-

EF = External Facilitator(s) = QUILL Trainer

DS = District Staff = Curriculum Coordinator/Language Arts

P = Principal(s)

RT = Resource Teacher(s) = Curriculum Reading Specialist

T = Teacher(s)

0 = Other(s)



FIGURE 10-B

Leadership and Support Configuration Checklist Site ___Masepa (I)___

INITIATION

		EF	DS	p	RT	т	_	
1. Assess needs, strengt	hs, and resources		X	F	RI	T	0	0
2. Assess current practi			<u>x</u>					
3. Set clear goals, obje	ctives, and expectations							
4. Select or develop a n	ew practice		Х	x			_	
5. Create awareness			X	$\frac{\lambda}{x}$	x	X		
6. Assign roles and resp	onsibilities		<u>x</u>		^			
7. Establish commitment				x				
8. Develop game plans			<u> </u>					
9. Allocate resources			x					
10. Provide materials			<u>x</u>					
11. Arrange training			<u>x</u>					
12. Make schedule and org	anizational changes in school		<u>*`</u>	x	x			
13. Help teachers plan im	plementation				$\frac{\hat{\mathbf{x}}}{\hat{\mathbf{x}}}$			
14. Provide initial train: 15. Provide problem-solvi		x			x			
		_ X			x			
15. Provide problem-solvi	ng and trouble-shooting support			X	x			
16. Provide follow-up tra		<u>x</u>			x			
17. Monitor classrooms fo	r use			X	<u>x</u>			
18. Evaluate implementati	on sutcomes		x		x			
19. Evaluate ultimate out	comes		x					
INSTITUTIONALIZATION								
20. Train new or reassign		x			x			
21. Conduct follow-up and	refresher session				<u> </u>			
22. Incorporate program in	nto curriculum guidelines		x	x				
23. Purchase new material:	and supplies routinely		x					
24. <u>Establish a budget lin</u>	ne_item		X					
TOTAL NUMBER OF FUNCTIONS 1	PERFORMED: 35 =	3	14	7	10	1	•	

EF = External Facilitator(s) = NDN Developer/Demonstrator



DS = District Staff = QUILL Coordinator

P = Principal(s)

RT = Resource Teacher(s)

T = Teacher(s)

^{0 = 0}ther(s)

FIGURE 10-C

Leadership and Support Configuration Checklist Site Plummet (I)

INITIATION

		EF	DS*	P*	RT	T	0	0
1.	Assess needs, strengths, and resources	X					<u>v</u>	
2.	Assess current practices	x						
3.	Set clear goals, objectives, and expectations	x						
4.	Select or develop a new practice	x	x					
5.	Create awareness	x	x				^	
6.	Assign roles and responsibilities		X					
7.	Establish commitment	X	<u>x</u>	_				
8.	Develop game plans		X				^	
9.	Allocate resources	x	X					
10.	Provide materials		X					
11.	Arrange training N/A							
12.			x					
13.	Help teachers plan implementation		x					
12.	Make schedule and organizational changes in school		X X					

IMPLEMENTATION

14. Provide initial training	N/A			
15. Provide problem-solving and trouble-shoot	ing support	x	x	
16. Provide follow-up training	N/A			
17. Monitor classrooms for use	N/A			
18. Evaluate implementation outcomes		X	x	
19. Evaluate ultimate outcomes		x	x	

INSTITUTIONALIZATION

20. Train new or reassigned staff			x					
21. Conduct follow-up and refresher sessions	N/A							
22. Incorporate program into curriculum guidelines	_		<u>x</u>					
23. Purchase new materials and supplies routinely			x					
24. Establish a budget line item			х				х	 _
TOTAL NUMBER OF FUNCTIONS PERFORMED: 35 =		7	16	_	_	4	8	

EF = External Facilitator(s) = Courts and Youth Services Organizations

DS = District Staff = Program Coordinator

P = Principal(s)

RT = Resource Teacher(s)

T = Teacher(s)

0 = Other(s) = Superintendent and Board

* = Same person: The program coordina or, a district staff person, was the building administrator of this whole school project.



FIGURE 10-D

Leadership and Support Configuration Checklist Site _____Tindale (I)

INITIATION

	EF	DS	P	RT	т	0	^
· Assess needs, strengths, and resources		x				- × -	 -
Assess current practices		X		-		- ~	
. Set clear goals, objectives, and expectations		X					
Select or develop a new practice		x	X				
. Create awareness		X					
. Assign roles and responsibilities		X					
. Establish commitment		X	_				
. Develop game plans		X		y			
. Allocate resources		x		<u></u>		 -	
· Provide materials		x					
. Arrange_training		X	_				
. Make schedule and organizational changes in school		X		_			
. Help teachers plan implementation		X					

14. Provide initial training	X	x	×
15. Provide problem-solving and trouble-shooting support		X X	
16. Provide follow-up training	X	X	x
17. Monitor classrooms for use	X	X	x
18. Evaluate implementation outcomes	X		X
19. Evaluate ultimate outcomes	x		X

<u>INSTITUTIONALIZATION</u>

20. Train new or reassigned staff		x				×	
21. Conduct follow-up and refresher sessions				x			
22. Incorporate program into curriculum guidelines		x				×	
23. Purchase new materials and supplies routinely		x				<u></u> -	
24. Establish a budget line item		x				x	······································
TOTAL NUMBER OF FUNCTIONS PERFORMED: 54 =	-	22	2	7	1	22	_

EF = External Facilitator(s)

DS = District Staff = Curriculum Director

P = Principal(s)

RT = Resource Teacher(s) = Reading Consultants

T = Teacher(s)

0 = Other(s) = Department Chairs (2)



FIGURE 10-E

Leadership and Support Configuration Checklist Site ___Carson_(I)___

INITIATION

	EF	DS	P	RT_	T	Ð	0
1. Assess needs, strengths, and resources	አ	х	X	_ X	х	Ŷ	x
2. Assess current practices	x	Х	x	x	x	X	x
3. Set clear goals, objectives, and expectations		x	x	x	x	x	
4. Select or develop a new practice	X	x		х	x	x	
5. Create awareness		х			_	x	
6. Assign roles and responsibilities		X	Х_			x	
7. Establish commitment		X	x	x		x	
8. Develop game plans	X	X	X	x		x	x
9. Allocate resources		x	X			- X	x
10. Provide materials		x	x			x	
11. Arrange training		X		<u>x</u>	x	x	<u>x</u>
12. Make schedule and organizational changes in school	1	х				x	
23. Relp teachers plan implementation		x	x	x	х	x	

IMPLEMENTATION

14. Provide initial training	_ x	x	x	x		x	
15. Provide problem-solving and trouble-shooting support	x	x	X	x	<u>x</u>	x	x
16. Provide follow-up training							
17. Monitor classrooms for use	х	X				x	
18. Evaluate implementation ourcomes	X	X				x	
19. Evaluate_ultimate_outcomes	X	x				x	x

INSTITUTIONALIZATION

20. Train new or reassigned staff	x	_ x	x	x	x	x	
21. Conduct follow-up and refresher sessions		X	x		x	x	
22. Incorporate program into curriculum guidelines		X					
23. Purchase new materials and supplies routinely		x	-				
24. Establish a budget line item		x					<u>x</u>
TOTAL NUMBER OF FUNCTIONS PERFORMED: 96 =	10	23	13	11		20	10

EF = External Facilitator(s)

DS = District Staff = Program Coordinator

P = Principal(s)

RT = Resource Teacher(s) = Counselors

T = Teacher(s)

0 = Other(s) = Teacher/Administration Management Team

0 = 0ther(s) = Superintendent



FIGURE 11

Total Number of Functions Performed by Role by Site and Level of Institutionalization

Level of Institutionalization	Total Number of Functions Performed	Number of Role in L & S Configuration	Ro	ole Gr	oup X 1	Numbe: RT	r of i	Functions O O
Both Individual/Organi: Institutionalization	zational <u>= 1/1</u>						 -	0 0
Beechwood/Rowley (II) Masepa (I) Plummet (I) Tindale (I) Carson (I)	38/24 35/24 35/19(1) 54/24 96/24	5 5 4 5 7	1 3 7 - 10	17 14 22 23	$\frac{4}{7}(2)$ $\frac{1}{2}$	12 10 - 7 11	4 1 4 1 9	 16(2) 8(5) 22(3) - 20(4)10(5)
Individual <u>Institutionalization Or</u>	nly = 1/0							
Countryville (II) Calston (I) Lido (I) Banestown (I) Hoover City (II)	11/24 15/24 16/24 19/24 17/24	4 4 6 5 5	2 4 3 1 4	4 6 1 9 4	1 4 2 5 3	3	4 1 2 1	 1 7(3) 3 -
Organizational <u>Institutionalization On</u>	ly = 0/1						3	3 -
Astoria (I) Carleton (II)	23/24 18/24	5 3	2 3	13 14	3 1	-	1 -	4(10) _

Notes:

- (1) Innovation = Complete School so some functions N/A
- (2) Program Coordinator = Building Administrator/District Staff (8) Teacher became
- (3) Department Chairs
- (4) Teacher/Administrator Mgt. Team
- (5) Superintendent and Board

- (7) Project Director
- District Staff
- (9) Parent
- (10) Distr. Curr. Comm.



FIGURE 11 (cont'd)

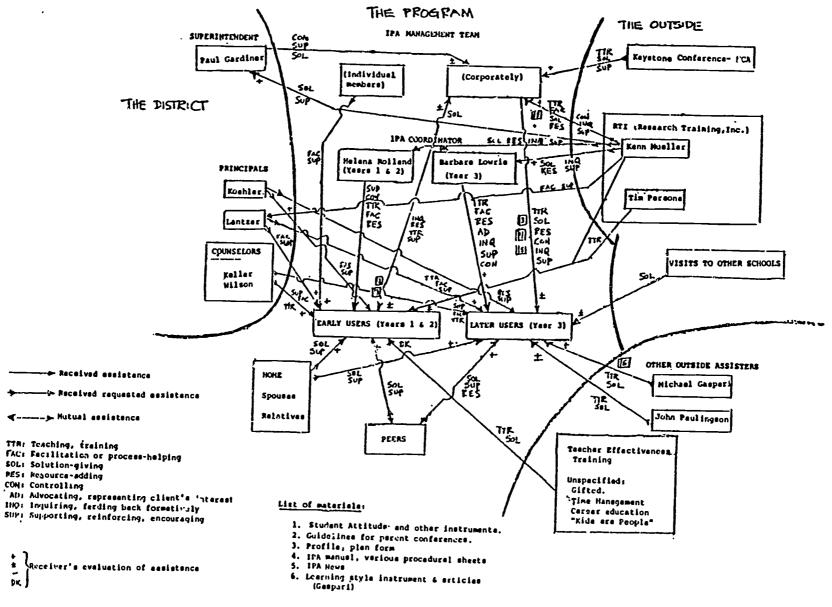
LEVEL OF INSTITUTIONALIZATION	TOTAL NUMBER OF FUNCTIONS PERFORMED	NUMBER OF ROLES IN L & S CONFIGURATION		LE GRO	OUP X	NUMBER RT	OF I	FUNCTIONS O O
No Institutionalization	n = 0/0						-	
Dun Hollow (I) Proville (I) Burton (I) Seaburg (II) Adams (II) Perry-Porkdale (I)	7/24 9/24 14/24 13/24 29/24 21/24	4 3(8) 4 3 6 5	3 - 1 2 4 5	1 4 11 - 6 12	- 1 - 2	- - - - 7	1 1 1 8 3	2(6) - 3(5) 1(7) 3(9) - 7 -



^{*} EF = External Facilitator
DS = District Staff
P = Principal
RT = Resource Teacher

T = Teacher O = Other

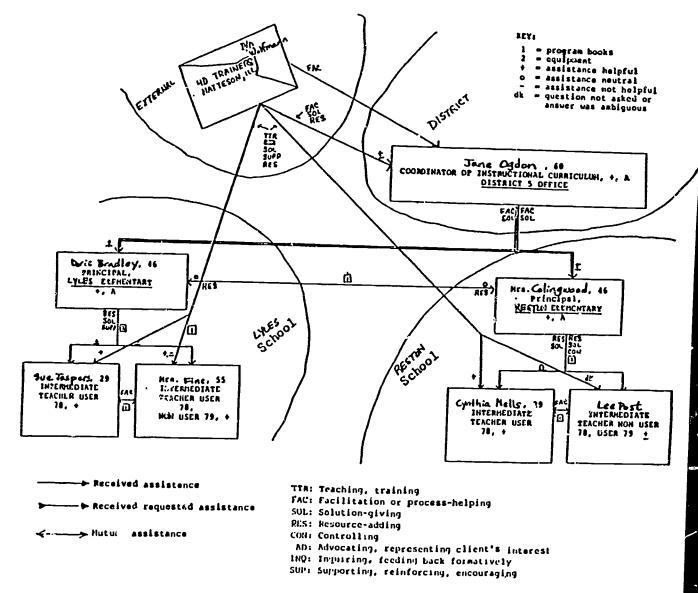
Location and Orientation of Assistance During Planning and Implementation, Carson Site



from: Huberman & Miles, 1982, p. 139



Location and Orientation of Assistance During Planning and and Implementation, Calston Site



from: Huberman & Mi es, 1982, p. 140



FIGURE 14

Average Number of Functions Performed per Role by Site and Level of Institutionalization

	AVG. NUMBER OF FUNCTIONS						
LEVEL OF	PERFORMED PER	2	VG. NUMB	ER OF	FUNCTIONS	X ROLE	GROUP
INSTITUTIONALIZATION	ROLE IN CONFIG.		EF*	DS	P	RT	T
Both Indiv./Org.							
Institutionalization = 1/	'1						
							
Beechwood/Rowl.ey (I)	7.6						
Masepa (I)	7.0						
Plummet (I)	8.75						
Tindale (I)	10.8						
Carson (I)	13.71						
• •							
AVERAGE FOR 1/1 SITES	9.57 E	BY ROLE:	4.2	18.4	8.4	8.0	3.8
Individual							
Institutionalization Only	r = 1/0						
Countryville (II)	2.75						
Calston (I)	3.75						
Lido (I)	2.67						
Banestown (I)	3.8						
Hoover City (II)	3.4						
							
AVERAGE FOR 1/O SITES	3.27 E	BY ROLE:	_ੰ <u>ਰ</u>	4.8	3.0	0.6	2.2

^{*} EF = External Facilitator RT = Resource Teacher

DS = District Staff

P = Principal

T = Teacher



FIGURE 14 (cont'd)

	AVG. NUMBER OF FUNCTIONS							
LEVEL OF	PERFORMED PER		AVG.	NUMBER	OF FUN	CTIONS	X ROLE	GROUP
INSTITUTIONALIZATION	ROLE IN CONFIG	÷		EF	DS	P	RT	T
Organizational								
Institutionalization Only	= 0/1							
3	4 6							
Astoria (I)	4.6							
Carleton (II)	6.0							
								•
AVERAGE FOR 0/1 SITES	5.3	BY ROLI	E: _	2.5	13.5	2.0	0.0	0.5
					·			
No Institutionalization =	0/0							
Dun Hollow (I)	1.75							
Proville (I)	3.0							
Burton (I)	3.5							
Seaburg (II)	4.3							
Adams (II)	4.8							
Perry-Parkdale (I)	4.2							
- ,								
		DV DOT		2.5	5.6	0.7	1.2	2.6
AVERAGE FOR 0/0 SITES	3.6	BY ROL	<u> </u>	4.3	5.0	<u> </u>		

