In the last decade, the Office of Education has granted several billions of dollars to local educational agencies (LEAs) in an attempt to stimulate, and sometimes force, educational improvements. This paper was presented at a symposium considering experiences accumulated in a recent national study of federal change programs as they have (or have not) influenced schools. Several cases of attempts to implement fundamental change in classroom organization by local school districts are discussed. These cases were examined as part of the Rand Change Agent Study. The problems particular to this sort of innovation are discussed, and lessons these efforts have for the implementation of innovations are suggested. (Author/MLF)
INNOVATIONS IN CLASSROOM ORGANIZATION

Milbrey Wallin McLaughlin

The Rand Corporation

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Innovations in Classroom Organization

Most observers believe that the educational innovations undertaken as part of the curriculum reform movement of the 1950's and early 1960's, as well as the innovations that comprised the initiatives of the "Education Decade", generally have failed to meet their objectives. One explanation for these disappointments is that until recently few educators have elected to initiate innovations that required change in the traditional roles and behaviors that exist within the school organization or the classroom. Instead, most innovative efforts typically have focused primarily on technological change not organizational change. Many believe that without changes in the character of the institutional setting, new practices are unlikely to lead to either much change in what happens to students or to the persistence of innovative methods.

Since about 1970, some educators have begun to express interest in classroom organization strategies that do attempt to alter the culture of the school and the classroom. They have sought practices that redefine assumptions about children and learning that underlie traditional methods -- practices that would change the ways that students, teachers, parents and administrators relate to each other. Encouraged and stimulated by the work of such writers as Joseph Featherstone, Charles Silberman and William Glasser, some educators have turned to innovations in classroom organization such as open education, multiage grouping, the integrated day, differentiated staffing, and team teaching. This movement is not based on a "model" of classroom organization to be strictly followed, but on a
common set of convictions about the nature of learning, the purpose of teaching, and the place of childhood. These philosophical similarities, which can be traced to the work of the Swiss psychologist Piaget, have produced new views about the process of educating children, and are based on a conviction that a humanistic, individualized, and child-centered process of education requires more than incremental or marginal changes in classroom organization and technology.

In this paper, I shall discuss several cases of attempts to implement this sort of fundamental change in classroom organization by local school districts. These cases were examined as part of the Rand Change Agent Study. I shall discuss the problems particular to this sort of innovation, and suggest what lessons these efforts have for the implementation of innovations generally.

If degree of "innovativeness" is to be judged by the amount of change a particular innovation assumes for participating staff and for organizational procedures, then those projects attempting to implement changes in classroom organization have undertaken innovation of the highest order. Compared to the other types of change agent projects we examined, these efforts were among the most central to perceived district priorities and interests, were among the most complex in terms of target group focus, curriculum focus, the amount of change assumed, and the amount of integration and coordination required with the ongoing activities of the school or district program.

These classroom organization projects were also among the most difficult to implement. This difficulty stems not only from the centrality and complexity of classroom organization projects - but also from the fact that these
projects require change in attitudes and behavior — changes more difficult to bring about than learning a new skill or substituting a new educational technology.

Classroom organization projects evidence none of the elements traditionally thought crucial to the adoption of innovation:

- Ease of explanation and communication to others.
- Possibility of a trial on a partial or limited basis.
- Ease of use.
- Congruence with existing values.
- Obvious superiority over practices that existed previously.

Innovations that focus on classroom organization are at odds with all five of these criteria. First, since there is no specific "model" to be followed, it is difficult to tell people how these approaches operate. Advocates can only offer general advice and communicate the philosophy or attitudes that underlie innovation in classroom organization and activities.

Second, although open classroom or team teaching strategies can be implemented slowly, and can be installed in just one or two classrooms in a school, it is generally not possible to be "just a little bit" open or just a "sometime" part of a team teaching situation. The method is based on fundamental changes, which are hard to accomplish piecemeal.

Third, as I've already mentioned, change in a classroom organization is exceedingly complex. It requires new attitudes, roles, and behavior on the part of teachers and administrators, new arrangement of classroom space, new instructional materials, and usually, new school scheduling and reporting practices.

* See Rogers and Shoemaker
Fourth, strategies of open education or team teaching are a radical departure from the traditional or standard practices of a school, district or teacher. Change in classroom organization means changing deeply held attitudes and customary behavior. These projects, by attempting to change organizational structure and goals, attempt to affect the fundamental nature of the organization and are therefore basically incongruent with existing values.

Fifth, although proponents naturally argue that humanistic, child-centered education represents a big advance, the objective evidence is ambiguous. Most evaluations of informal classrooms conclude that participating children do better on affective measures, but there is little evidence of significant cognitive differences that could confidently be attributed to open classrooms themselves. Thus, an administrator contemplating a change in classroom organization is confronted with a complicated innovation that shows no clear advantage over existing practice — at least in the ways that often matter most to school boards, voters, and anxious parents.

In short, the lack of specificity of treatment and the ambiguity of goals present a challenge to would-be innovators. But on the other hand, the amorphous nature of classroom organization projects allow room for creativity and for development of a project that is responsive to local needs. Despite the high degree of the difficulty and perceived risk associated with classroom organization projects, a surprising number of local districts are attempting innovation of this kind. For example, in our survey sample of 293 Change Agent projects, about 85 could be classified as classroom organization projects. To learn more about these projects and the process of change
associated with their implementation and outcome, we visited five different school districts to study five Title III projects that aimed to change classroom organization. Three of the projects -- Seaside, Sandwood, and Eastown -- focused on strategies of informal education: multiage grouping, open education and integrated curricula. A fourth, Centerville, focused mainly on implementing team teaching and differentiated-staffing plans. The fifth project, the Storefront School in Northwood, tried to establish an alternative form of secondary education for educational and psychological dropouts. It was organized along the principles of open education. And, although each project (and indeed classrooms within each project) differed, all of them evinced similar attitudes and beliefs about the process of education.

Despite the complexity and high level of difficulty that characterize classroom organization projects, innovations of this type were among the most likely to be successful of the change agent efforts we examined. In the context of our study, we have defined "success" somewhat differently than usually defined in most evaluations of educational innovations. We judged "success" not in terms of a simple objective output, but rather by four criterion that tap the different dimensions of successful implementation -- the extent to which the original project idea or design was implemented, the amount of change the project brought about in teacher behavior and attitudes, the extent to which the project met its stated goals, and the extent to which project practices have been incorporated by participants or are expected to be continued by local personnel after federal funds go away.

*Project names are fictitious
The high level of success typically achieved by these projects can be explained by two interrelated factors: the motivations of key personnel during project initiation; and the type of implementation strategies chosen for carrying out project objectives, that is, the choices about the way in which the project would be introduced and executed.

Classroom organization projects were characterized by high levels of commitment and support for their initiation, both at the district and at the building level. This is not surprising when we consider the risk and difficulty associated with these projects; it is unlikely that a district would elect to undertake a project of this nature unless they believed strongly in the educational approach and were committed to attempting the changes necessary to implement it. For example, in Sandwood, the Title III classroom organization project was initiated in order to expand the pilot activities undertaken with district funds in the previous year. The Seaside project was initiated in response to teacher demands that "something be done" about present practices and their interest, stimulated by the principal, in open education. Centerville's differentiated staffing and team teaching project was proposed by the superintendent, who had been brought to the community with a mandate to "change the schools and shake up the system". The TANDEM project was seen by participants as a way to meet these demands.

In addition to strong support from district administrators, these projects were comprised primarily of staff who believed in the project precepts. Most of the projects visited were staffed by volunteers -- people who were interested enough in implementing classroom organization changes to work hard to try something new. People who disagreed with the project aims
and methods, or those who rejected the additional workload, were able to leave. Furthermore, in some projects, participating staff were not only volunteers, but were hand-picked by project administrators. The teachers charged with implementing the Sandwood project, for example, were in the words of the project evaluator "excellent by any light". Voluntarism seemed to us to have eliminated much of the "resistance to change" generally expected to occur in innovative projects, at least among the direct participants, and also to have produced an exceptionally able cadre of project participants.

But despite the obvious benefits of strong district and staff commitment to project goals and objectives, we found that these institutional motivations were a necessary but not a sufficient factor in achieving successful project implementation and outcomes. We found that unless the project also had elected implementation strategies that fostered what we call mutual adaptation, implementation floundered and project outcomes were disappointing.

By "mutual adaptation" we mean the changes that occur in both the project and in the institutional setting over time as a project is implemented -- that is modification in project treatments and objectives and adaptation or new learning on the part of the project participants. There are a number of strategies that seemed to be especially important to mutual adaptation and thus to successful implementation.

Components of a Successful Implementation Strategy

Local Material Development

In each of these projects, the staff spent a substantial amount of time
developing materials to use in the project classrooms. These materials were developed from scratch or put together from bits of commercially developed materials. Although these activities were sometimes undertaken because the staff felt they couldn't locate appropriate commercial materials, we believe that the real contribution lay in providing the staff with a sense of involvement and an opportunity to "learn-by-doing". Working together to develop materials for the project gave the staff a sense of pride in its own accomplishments, a sense of "ownership" in the project. Even more important, they were given an opportunity to think through the concepts which underlay the project, in practical, operational terms, and an important chance to communicate with other members of the staff. It broke down the traditional isolation of the classroom teacher and provided a sense of "professionalism" and cooperation not usually available in the school setting.

Thus, we believe that the major value of materials development lies not in the resulting product but in the social and psychological support it provides for project staff and in the important opportunity for "learning-by-doing". Although such "reinvention of the wheel" may not appear efficient in the short run - it appears to us to be an essential component of successful implementation and persistent change.

Staff Training

All the projects we visited included both formal and informal staff training. Centerville's formal training took place in a two week summer session before the project began. The project's informal development activities have been extensive, providing for almost constant interaction between project staff. Sandwood and Eastown provided preservice training. The Sandwood training included observations in the pilot project classrooms. Some of
The Eastown staff participated in a trip to observe British infant schools. Both projects have also conducted regular workshops and staff meetings. The Seaside project had no preservice training or site visits, probably because funding notification came so late. Consequently, this staff had to try to implement an almost unknown educational strategy. During the school year, the project provided two site visits for each project teacher, three weekend retreats, and monthly workshops.

Some commentators on the outcomes of planned change contend that where innovations fail, particularly innovations in classroom organization, they fail because their planners overlooked the "resocialization" of teachers. Our data strongly support this notion. Even willing teachers have to go through such a learning process in order to develop new attitudes, behavior, and skills for a radically new role. Project staffs agree that staff development and training activities were a critical part of successful implementation. They also agree that some kinds of development activities are more useful than others. Visits by consultants and other outside "experts" were not considered particularly helpful. Teachers complain that most visiting consultants could not relate to the particular problems they were experiencing in their classrooms, or that their advice was too abstract to be helpful. The most useful sessions were meetings of the project staff in which ideas were shared, problems discussed, and support given. Visits to other schools implementing open classroom concepts were also helpful; the teachers felt that seeing a similar program in operation for just a few hours was worth much more than several days of consultants delivering talks on philosophy.
Planning and Staff Meetings

Perhaps in large part because of their lack of prior specifications, classroom organization projects are more likely to engage in what we have called "on-line" planning -- that is, flexible, on-going planning that permitted frequent reassessment of project methods and goals, and fairly immediate resolution of problems that arose during project implementation. Frequent and regular staff meetings were also important and often were used as a way to carry out project planning on a continuous basis. Projects that made a point of scheduling staff meetings on a frequent and regular basis had fewer serious implementation problems, and the staff demonstrated higher morale and greater sense of cohesiveness. Staff meetings not only provided a form of articulating and working out problems, but also gave staff a chance to communicate project information, share ideas and to provide each other with encouragement and support.

Finding time for these meetings or planning activities was a problem that some districts were able to solve and others were not. The Sandwood project, for example, arranged time off one afternoon a week for meetings. Participants almost universally singled out these meetings as one of the most important factors contributing to project success. Such time to share ideas and problems was, in the view of the respondents, especially important in the rough and exhausting first year of the project. We found that where meetings were infrequent or irregular, morale was noticeably lower and reports of friction within the project was higher.

Because this type of innovation requires changes in attitudes, values, and roles, it cannot be specified or packaged in advance. Teachers are expected to work out their own styles and techniques within a broad philo-
sophical approach. Therefore, project implementation is an exercise in "learning-by-doing." The fact that there are no rigid guidelines characteristically plagues attempts to change classroom organization practices. The first year, in all of these projects, was very difficult; teachers became discouraged, overtired, and overworked, and wondered if their efforts were worthwhile. It is not surprising then, that successful implementation of these Title III projects had little to do with "things" -- but a lot to do with the support and encouragement of teachers attempting to implement change, and most importantly with flexible implementation strategies that permitted growth and mutual adaptation to take place.

The critical role that such implementation strategies can play in project implementation and outcomes is perhaps best illustrated by describing the experiences of two open classroom projects that were similar in almost every respect -- resources, support and interest, target group background characteristics -- but differed significantly in implementation strategy and project outcomes. The Eastown open education project had extensive and ongoing staff training, spent a lot of staff time and energy on material development, and arranged for staff to meet regularly, and engaged in regular formative evaluation. This project was also well implemented, running smoothly and meeting its objectives. In fact, this project received validation as a national exemplary project in its second year -- a year before it was theoretically eligible.

The very similar Seaside project, in contrast, did not employ these implementation strategies. Because of late funding notification, there was little time for advance planning or preservice training; project teachers were asked to implement a concept that they supported but that few had actually seen in operation. The planning that was done subsequently was mainly
administrative in nature. The in-service training was spotty and was offered almost totally by "outside experts". The Seaside project did no materials development but instead tried to convert traditional materials to the goals of open education. This project has not only been less successful than hoped, but in our judgement, it has yet to be fully implemented. Teacher classroom behavior exhibits only a very superficial understanding of the rhetoric of open education; our observations led to the conclusion that teachers had yet to understand the practical implications of the tenets of open education, and have made only symbolic use of the more standard methods. For example, in many of the classrooms we visited, although the teacher had set up interest centers, these centers had not been changed in six or seven months. Thus they failed to serve their purpose in an open classroom of providing a continually changing menu of material for students. Teachers in the Seaside project had dutifully rearranged their classroom furniture and acquired rugs, as befits the open classroom but even in this changed physical space, they continued to conduct their class in traditional manner. A student teacher commented that many of the teachers in this school conducted their class in the small groups or individualized manner appropriate to this educational philosophy only on visitors day. In our judgment, the teachers in the school honestly wanted to implement open education, and many sincerely believed that they had accomplished that goal. But, in our view, implementation in this project was only pro forma -- largely because of the absence of implementation strategies that would allow learning, growth and development or mutual adaptation to take place.
General Lessons

Overcoming the challenges and problems inherent to innovation in classroom organization contribute positively and significantly to its successful implementation and outcome. For one, classroom organization projects require profound change in teacher attitudes and behavior -- much more for example, than innovations that only require teachers to learn a new skill or specific technique. We found that very ambitious and complex classroom organization projects -- although they were often less successful (in an absolute sense) in meeting stated project goals than other, more simple innovations -- usually resulted in the most significant and enduring change in teacher behavior. No project ever succeeds completely -- but it seems that by attempting more -- more is likely to be accomplished.

Second, the amorphous yet complex nature of classroom organization projects tends to require or dictate an adaptive implementation strategy that permits goals and methods to be reassessed and refined during the course of project implementation and that fosters "learning-by-doing".

We found that all successfully implemented projects in our study went through a process of mutual adaptation to some extent. Even fairly straightforward, essentially technological projects were either adapted in some way to the institutional setting -- or they were only superficially implemented and were not expected to remain in place after the withdrawal of federal funds. Where attempts were made to take short cuts in this process -- out of concern for efficiency, for example -- such efforts to speed-up project implementation usually led to project breakdown or to pro forma installation of project methods.
In sum, we found that successful innovation was characterized to a greater or lesser extent in all innovative projects by a process of mutual adaptation. Since this adaptive program is central to classroom organization projects, these innovative efforts provide a particularly good opportunity to identify the components of an adaptive implementation strategy and to observe the way particular strategies such as those I have discussed, work together -- in concert -- to promote adaptation and change. Thus, our data suggest that successful implementation does not simply involve the direct application of a technology -- and that it is neither an automatic nor a certain process.

But our conclusion about the importance of adaptation and "learning-by-doing" also raises a number of questions for educational planners and disseminators. For example, to what extent can this process be telescoped as project accomplishments are replicated in a new setting? What kinds of "learning" can be transferred? And how? Is there a "core" or techniques or process that can be transplanted, given that the adaptive process is intrinsic? The importance of the process of mutual adaptation seen in classroom organization projects suggests that there may be no quick, easy answers to the problem of change -- and that the effective spread and incorporation of innovative practices may require more time and patience than we expected.