This paper describes the activities and experiences of a technical assistance consultant working with a superintendent and assistant superintendent to implement the Achievement Directed Leadership (ADL) school improvement program during 1981-82. The paper's first section describes the ADL program's "top-down" implementation plan, with its step-by-step training first of central office administrators, then of principals, and finally of teachers. Following the second section's description of the troubled, unstable context for change in the urban New Jersey school district where the program was to be implemented, section 3 discusses the efforts of the technical assistance "external linker" to involve the district's central office administrators, principals, and curriculum supervisors in the program's planning stages. In three subsequent sections, the author describes how the external linker (1) mobilized program support by developing a Quarterly Topic Plan, (2) facilitated program implementation with the help of a Principal/Teacher Conference Form, and (3) sustained and supported the program's implementation by means of extensive follow-up observation and consultation. The paper concludes by affirming the successful efforts of the particular external linker in question and the value of effective in-person technical assistance generally in contributing to district-wide improvement. (JBM)
Using Research to Facilitate Implementation: 
The Role of the External Linker

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Recent research on effective schools is providing insights into the roles played by linkers in school improvement. It appears that active support and leadership from an external linker may be a necessary condition for institutionalizing or stabilizing a broad scope of improved practice (Berman, 1982; Miles, 1983). Ongoing, participatory, and proactive involvement by an external linker can contribute to the success of an innovation and in the long run, to its potential for institutionalization (Hood, 1982; Louis, 1981).

Several researchers have identified aspects of the external linker technical assistance role which can contribute to the success of school district innovation. The scope of technical assistance, the number of sites served, and the training and preparation of the linker are all important factors. Upon entering a site, a linker should be aware of the specific contextual and cultural influences and be prepared to adapt program plans to fit the local conditions. The linker should also recognize that planning for implementation may be cyclical rather than sequential. Once in a site, the linker needs to spend considerable time in face to face interactions to build credibility and trust.

The research is less specific in describing how an external linker initiates change in a school district and supports and sustains an innovation over time. This paper describes the activities and experiences of an external linker working with central office administrators—a superintendent and assistant superintendent—to implement a school improvement program called Achievement Directed Leadership during 1981-82.
The first section of the paper briefly describes the innovative program. The second section addresses three questions: how did the linker mobilize the system, what did the linker do to implement change, and what did the linker do to sustain change? The paper concludes with a reflection on the linking roles required to support a large-scale implementation effort.

Achievement Directed Leadership

The innovation described here is a staff development training program called Achievement Directed Leadership. It is based on two knowledge utilization perspectives: (1) research on effective teacher practice can be replicated in new sites and, (2) improvements in classrooms occur when there are corresponding changes at the school and district levels. The program approach has been described elsewhere (Biester, et al., 1983; Helms, 1980; Rouk, 1981).

To initiate a top-down implementation, central office staff are trained by an external linker to understand the critical classroom variables identified by research studies (i.e., time, prior learning, coverage of content, and academic performance) and leadership roles, functions, and responsibilities at each level of the school system. Training addresses implementation issues, as well as skill development. Since organization and management decisions can have an impact on several levels of the system, training for central office staff includes strategies for coordinating and sustaining principals' improvement efforts.

When district leaders are trained, they take responsibility for principals' training in school level leadership roles. Once principals are trained, they have a similar responsibility to make school level
implementation decisions and then to train their teachers. After training, classroom teachers attend to the classroom variables by developing instructional plans and classroom management routines.

Throughout the year, principals support teachers and monitor the program implementation by conducting cycles of classroom observations and supervisory conferences. Data from the classroom, poor use of classroom time for example, is discussed in teacher-principal meetings on instructional improvement. Based on these discussions the principal may arrange professional growth experiences and staff development programs for teachers.

This description of the innovative process sounds highly systematic, rational, and maintenance-free. However, complex innovations which occur over time affect several levels of the system simultaneously, and require continual modification. The superintendent and assistant superintendent provided continuing support to principals as adjustments were made in the program and the external linker supported leadership by the central office administrators. The next section of the paper describes the context of the implementation and some of the on-site activities of the external linker following initial training.

The Context for Change

The context and the culture of a school or school system have a profound impact on an implementation (Corbett, et al., 1983). The external linker should make an effort to understand the culture and in light of the facts, anticipate how the school system might respond to change. Through casual conversations, direct questions and documents, a linker can learn how the school district initiated a search for an innovation, what the
barriers to implementation might be, and where resistance to the innovation might occur.

The district described here is located in central New Jersey and classified as urban. It is surrounded by suburban districts which have grown up as a result of increasing industry in the region and white flight from the city. The student population is predominantly from working class, minority families. Many of the students speak English as a second language. In the 1981-82 school year, the year of implementation, there were eight elementary schools and one middle school, a total of about 375 classrooms.

There were five changes in central office leadership between 1970 and 1980. The average tenure for a superintendent was eighteen months compared to more than ten years for staff. Supervisors, principals, and teachers took credit for the rapid turnover of leadership and said with some pride, "We get rid of superintendents. We're here when they come, we're here after they're gone." As a result of this turmoil the instructional program was in ruins. No superintendent had been around long enough to do more than dismantle the programs of his predecessor and mobilize staff for something new. In the absence of central leadership, the curriculum supervisors bartered with principals for inservice time, and cajoled principals to implement new reading, math, or language arts programs. Some principals ran their schools by striking deals with teachers for class assignments, inservice programs, lunchroom duty, and excused absences.

The dates of events in the district were calculated using "the riots" in the early seventies as the reference point. Statements such as: "I came to the district two years before the riots" and "Everything went downhill after the riots," or "I carry keys as a weapon because of the
riots" were common. The civil disturbances caused by the perceived unresponsiveness of the school system and the city to the needs of minorities had a profound impact on the school district. Suburban districts and parochial schools drew the white student population, leaving the system predominantly black and Hispanic. Expectations of achievement and conduct for this new population were lower. Students were generally perceived as poorer, less motivated, not well prepared, and more in need of social services. Teachers and principals had an attitude they developed in the seventies, "Just try to get through the day (the week, the year) safely."

The new superintendent inherited a school district with a poor self image. The final straw had come two years before the superintendent came to the district. Third, sixth, and ninth grade students posted the lowest scores in the state on a minimum competency test. Consequently, the district had been cited as "high risk" by the state and ordered to improve students' achievement or else.

The superintendent had no intention of suffering the fate of his predecessors. He began to make organizational changes and to improve the instructional program and basic skills achievement. An assistant superintendent was appointed to supervise all curriculum in grades K-12. Then, the superintendent began to look for a program that would give the central office greater control of curriculum and instruction while holding each principal accountable for providing instructional leadership and an effective school program.

This information about the district was extremely important to the external linker's work. The external linker used information about the superintendent's goals and the district's current status to develop the
Mobilizing district support would have to take into account past innovation failures, low expectations for students, and principal and teacher autonomy. Implementing a top-down improvement program would cause conflict in a system where individual staff were usually invited to participate in new programs. Institutionalizing new practices would require a consistent, strong message districtwide that this innovation wasn't going away.

Implementation Plan

The innovative program, Achievement Directed Leadership was not fully developed when the superintendent made the decision in June 1981 to implement the research based instructional practices in the eight elementary schools and the middle school. The roles and functions above the level of the classroom teacher were described only generally. However, the developers believed that principals should train staff, given Berman and McLaughlin's (1977) observation that the principal's participation in staff development encouraged teachers' participation. The program emphasized principals' intimate knowledge of and involvement in the day-to-day management of the instructional program. Thus, the implementation plan submitted to the superintendent called for principals to train their staffs to manage the classroom variables and to conduct monthly small group meetings as problems or issues arose. Since little was known about the central office leadership role, similar training and supervision activities were planned for that level in the belief that the same principles of knowledge utilization and effective leadership would apply.
The implementation plan specified 30 hours of training by an external linker for central office staff during the summer. Central office staff would, in turn, provide 30 hours of training for principals before the start of school. Principals would need 15 hours to train teachers at the beginning of the school year. Following the training, each principal would monitor teachers' attention to the classroom variables. Based on instructional improvement in classrooms, principals were to respond, when necessary, with individual conferences, small group meetings, faculty inservice, or changes in building management and organization. A similar sequence of monitoring and response would occur at the central office level to support principals. These latter activities were expected to require about five hours a month at each level.

From the start, adaptations were made in the implementation plan. Initial training time was reduced by half since the district simply didn't have enough staff development time available. Central office administrators, supervisors, and principals attended training together, led by the external linker.

Planned summer training for central office administrators and supervisors in the curriculum-test matching process by the external linker was cancelled. RBS expected to use this time to help the district align curriculum since teachers need a curriculum aligned with tested content in order to plan instruction. (The overlap between instruction and tested content is one highly significant predictor of students' end of year achievement (Cooley & Leinhardt, 1980). Since computing overlap between curriculum and test content is a labor intensive task, it is better handled by curriculum specialists. Fortunately, the district had contracted with
another consultant in the spring of 1981 to help curriculum supervisors prepare the curriculum alignments for grades K-8.

After talking to the consultant, central office administrators, and supervisors, the developers accepted the alignment as similar enough to their own program training outcomes to be a reasonable substitute. In turn, the district agreed to train principals and teachers to plan for and monitor the related classroom variables which were not built into the aligned curriculum. The developers accommodated to the existing conditions and the district adapted its curriculum implementation plan to include a monitoring role for principals and a planning role for teachers.

A third and critical early adaptation was the development of a role for curriculum supervisors. Originally, no role beyond the traditional one of curriculum development and staff development training had been specified for them. But, in this district, as in many others, these supervisors took major responsibility for directing the instructional program. They worked directly with teachers in classrooms, arranged, delivered, and evaluated all the staff development programs, and supervised special subject teachers. Since this program called for the principals to take over many of the planning and teacher supervision activities, curriculum supervisors were left without a major role to play. The external linker had to decide how to accommodate to the district organization.

The external linker met with the assistant superintendent to plan a role for the curriculum supervisors. It was important for principals to take over the instructional leadership functions but it was equally important for supervisors to have access to the schools. To solve the problem, each supervisor was assigned to a principal for the school year as a
resource person on curriculum, instruction, and classroom management. The district thus effected a change in the system to accommodate the building level implementation and adapted the implementation plan to include another role.

However, a supervisor could not be a credible resource unless he or she received at least as much training as the principals had received. The external linker, therefore, arranged a training program for supervisors. But, after the district paid the supervisors to attend the summer training along with central office administrators and principals, the linker recast the September dates as an extension of training. Training had provided new skills, but principals still needed extensive support for planning teachers' training and figuring out how to apply the training to managing the building and working with teachers. So, as principals opened their buildings in September, the curriculum supervisors met with the linker to plan for teacher training and for continuing support to principals.

**Mobilizing Support**

Curriculum supervisors had many questions about the management of the innovation and their particular roles relative to training and subsequent building implementation. Their major concerns were that (a) the curriculum objectives would prove too ambitious and therefore, impractical, given students' prior achievement, (b) teachers would not follow the prescribed curriculum, (c) principals had neither the experience, motivation, nor interest to monitor instruction, (d) curriculum supervisors did not have the authority to supervise principals, (e) central office administrators would not be strong enough or politically sophisticated enough to
counteract school level resistance, and finally (f) that the external agency would turn the system upside down without regard to its needs and then vanish. These concerns were echoed informally by principals.

The ensuing debate around each of these concerns during the five days of meetings with supervisors led to modifications in the proposed training, planning, and monitoring procedures. To make sure that students covered objectives at an appropriate pace, that teachers followed the curriculum, and that principals could easily monitor student progress, the curriculum supervisors adapted the developers' materials into a planning guide for instructional delivery. The resulting Quarterly Topic Plan provided a record of teacher decisions about content coverage and became a standard document for use in all schools.

There were several benefits for the implementation from this investment of time. First, the external linker's credibility was enhanced through daily, face-to-face debate with the supervisors. The linker was not cast in a lecture or expert posture, but appeared every day to facilitate planning, offer solutions and technical information, and identify possible compromises between the developer's ideal and the supervisors' reality. The supervisors came to trust that the linker understood what they were facing. Second, the supervisors now had a level of understanding about the implementation plan. This understanding became their leverage for entry into schools and for establishing partnerships with principals. Third, the supervisors were committed to the implementation because they had an opportunity to think about and resolve many of the related issues. They were able to explain, and even advocate the use of training agendas, the partnerships, and the Quarterly Topic Plan. Finally, these immediate
outcomes also had long term effects. The instructional delivery system was improved and the linkages between central office and schools were formalized.

Implementing Change

The real test of the value of all this planning and training was the implementation of the program in the schools. Supervisors were well prepared to do battle with low achievement scores since they were armed with knowledge of the program, committed to it, and had the blessings and support of central office. However, principals were not as well prepared. They had received less training and less information from central office administrators and the external linker about how to accomplish the training and supervision tasks. The district's past history of failure did more to influence principals' initial response to the program than the training provided or central office reorganization.

Generally, principals tried to buffer their schools against the innovation by raising objections to what they described as a superfluous and paper-oriented project. They co-opted supervisors into delivering teacher training by not showing up for planning meetings. They told the linker, "You're nice, but this won't work here," and supported their opinion by listing all of the of district ills and previous failed innovations. They also claimed to have other, different plans for improving the schools. The argued that they had good, stable staffs and therefore didn't need to monitor them as the implementation plan prescribed. After all, since the riots, they said, the kinds of kids in the schools either didn't want to, or couldn't learn. It wasn't the teachers' fault. They pointed out that none of the program practices were new, and, they already behaved as instructional leaders. Finally, they
argued that it was not wise to destroy the traditional bartering system of management in favor of telling teachers what to teach or how to run their classrooms.

Reports of principals' resistance mounted during September. The external linker met with the superintendent and assistant superintendent to figure out how to respond. Teacher training had gone well, but the principals' continued commitment to the implementation was pivotal to success. What accommodations and adaptations could be made that would both guard the integrity of the innovation and induce principals to endorse it? The linker and administrators came up with three strategies. First, they analyzed all the questions and statements from principals and developed a set of answers and arguments in favor of the program. Second, they arranged two forums where principals could publicly voice their concerns. Third, with the help of the program developers the district leadership introduced a Principal/Teacher Conference Form that was designed to focus principals' attention on the expectations of their leadership role.

Verbal statements such as the following were developed in answer to principals' complaints and used at every opportunity by central office and the linker:

*Our students can learn. There are classrooms in the country with students just like ours and those students surpass national norms. We're just trying to take the best research on effective classrooms and schools and apply it systematically, across levels, and districtwide. We have good staff, they work hard, but the hard work is not reflected in the achievement scores. Since there is nothing inherently wrong with our students and our teachers are veteran professionals, this research-based program will enhance all of our efforts and stop us from blaming each other. If you have a better idea, we'll listen to it.*

Principals were also invited to participate in the monthly central office administrative planning meetings. Issues raised at these meetings,
(e.g., the forms are cumbersome, the curriculum guide is deficient, observations take up too much time) became topics for discussion in the other forum, the monthly principals' seminars. These administrative meetings and seminars were part of the original implementation plan, but they became a critical part of the ongoing planning, training and supervision roles of central office staff. Central office administrators and the external linker used information provided by principals about their problems and about teacher problems to make adjustments in the implementation plan and staff development training.

For example, principals felt it was unnecessary for teachers to describe what students would be doing during a classroom observation on a separate form when lesson plans already listed activities and time slots. After some deliberation, the linker and superintendent agreed that the "pre-observation form" could be dropped if lesson plans, in fact, explicitly stated instructional activities and objectives.

The superintendent volunteered to introduce the Principal/Teacher Conference Form to principals during the October seminar. This was a significant event for several reasons. First, the district demonstrated strong commitment to the conferences. Second, the superintendent's initiative allayed external agency fears that the district would become too dependent on the linker for training and staff development. Third, this activity was a symbolic statement of central office leadership and responsibility for the implementation.

Not all external linker activities were successful. Some suggested changes in the district's operation were complete failures. Usually, failures resulted from the linker's inattention to the local conditions. As a case in point, the linker was unable to get principals to routinely
individualize teacher inservice based on teacher need. The developers believed that principals should use classroom data to plan instructional improvement activities for teachers. Inservice programs were to be a direct response to observed needs of individuals and, therefore, could not be arranged for or delivered to the faculty as a whole. The developers insisted this was an important aspect of principals' effectiveness in planning for training.

Curriculum supervisors and principals were not prepared to offer either a customized inservice program or follow-up assistance to teachers. The district did not have the capability for differentiated inservice, could not develop it quickly, and to the linker's knowledge never attempted such a plan again at the teacher level.

Changes at the district level were central to changes in principals' leadership behaviors. Principals were on the firing line, expected to change teachers' instructional behavior and, simultaneously, to change their own leadership behaviors. The linker observed that where central office demonstrated the capacity to support principals' leadership—to answer questions, provide training, introduce a supervision process—there were changes in the principal's behavior. Where the district could not provide sufficient support or see the benefit of a change in procedure, new practices were not effectively implemented. To the extent that the external linker took district capacity into account, suggested strategies were accepted, modified and eventually institutionalized.

**Sustaining and Supporting Change**

Sustaining change over time became a full time job for the external linker. The external linker logged an average of 60-75% of available time
either in the district or planning for work in the district. The superintendent jokingly referred to the linker as "a new member of my staff". In many ways, this was an accurate assessment. However, the time paid off. The linker was an adjunct member of central office administration. This position proved critical for sustaining the implementation. Staff perceived the linker's investment of time as evidence of caring and genuine interest in the district's success. The linker didn't leave but remained available to make the accommodations and adaptations necessary for a good fit between the demands of implementation and the goals of the district. The linker was welcomed in all schools and administrative offices as a source of technical information and moral support.

The linker spent a great deal of time observing the implementation from the perspectives of the superintendent, curriculum supervisors, principals, and teachers. The linker used these observations as information to help the district planning process. The observations were discussed with central office administrators and used to make informed decisions and adaptations in the implementation.

Thus, when the external linker became convinced from school visits that principals did not understand how to monitor instructional plans, a central office response was required. The external linker met with the superintendent and assistant superintendent to decide how best to handle this weakness. The decision was made to use a seminar to retrain principals in the critical task of monitoring students' coverage of criterion content. The assistant superintendent chose to make the presentation because of her greater familiarity with the curriculum. This process of identifying a need or weakness and planning a district level training or supervision
response occurred many times during the field test year. The process is still used. During follow-up visits to the site, the superintendent, supervisors, and principals describe institutionalization problems they have encountered and the training or supervision responses they have developed. No longer are problems accepted as the best that can be done under the circumstances. The district continues to seek solutions rather than excuses for problems.

The development and continued use of Quarterly Topic Plans and the Principal/Teacher Conference Form are two examples of the linker's contribution to the district. Less tangible, but equally significant outcomes of the linker's participation are increasing leadership by central office administrators and improved communication between levels of the system.

Conclusion

To mobilize district support, the linker provided research-based skill training and followed up with specific planning and training at all levels of the system. To implement change, the linker, supported by the external agency developers, initiated activities, developed materials, and participated in district level responses to problems in the system. To sustain change, the linker became part of the communication network and used data gained both formally and informally to help the district plan feasible training and supervision responses.

This paper can merely hint at the importance of maintaining interpersonal relationships with school district staff, understanding the influence of prevailing local conditions on implementation, or making adaptations in the program to accommodate to the real world. However, each of these factors contributed to the eventual success of the implementation.
The external linker and developers derived benefits from this implementation beyond the demonstration that a districtwide development and leadership training approach to increased student achievement can work. The developers have produced "handbooks" which detail the necessary roles, functions and tasks of instructional leaders at each level of the school system. Initial training packages are now differentiated to highlight the particular planning activities and responsibilities at each level. The Principal/Teacher Conference procedure has been refined and incorporated into the implementation plan as a required school level activity. And, finally, the role of the external linker will soon be described in a handbook for other agencies interested in mounting this type of effort.

Several studies, reports, and articles on the importance of the external linker conclude with a sad prediction about the fate of this role. Providing effective in-person technical assistance requires both time and resources (Louis, 1981; Rosenblum, 1982). It can be expensive. However, one linker's experience suggests that technical assistance which includes on-site support is likely to contribute to districtwide improvement.
Bibliography


