The purpose of the third conference for State Education Agency (SEA) personnel was informative exchange relating to the goals, selection, and training of educational linking agents. The linking agent was considered as a possible solution to the problem of bridging the gap between educational research and classroom practice. Topics considered included: (1) linking agent models presently in operation, (2) variety of possible linker roles, (3) the change process, (4) necessity of interpersonal communication, and (5) linker qualifications, including skills and type of educational background.
LINKER TRAINING PROCESSES
FOR THE STATE EDUCATION AGENCY
DISSEMINATION SYSTEM

CONFERENCE TOPIC PAPER

National Dissemination Leadership Project

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PREFACE

The National Dissemination Leadership Project (NDLP) is the sponsor of three topical conferences for State Education Agency (SEA) personnel who are assigned to dissemination activities. The purpose: to inform them of the wide variety of information resources now available; to inform them of problem-solving techniques; and to give them an opportunity to share concerns, practices and needs. Perhaps most important, the SEA representatives, after close study of the topic under consideration, produced a series of recommendations aimed at improving current practices.

The first of these topical conferences focused on extra-ERIC resources. It was held December 13-14, 1976, in Portland, Oregon. The second conference, "Coordinating the SEA Dissemination Program," was held February 8-9, 1977, in Providence, Rhode Island. The third topical conference considered "Linker Training Processes," and was held in Columbia, South Carolina, March 3-4, 1977.
Introduction

Despite two decades of federal investment in education research, there is no formal system for getting the results of research into the nation's classrooms. In almost every piece of federal education legislation, there is talk of disseminating the results -- but still no system or mechanism exists. This situation was documented by the Interstate Project on Dissemination, (IPD), a joint venture by seven State Education Agencies that was funded by the National Institute of Education.

Based on the report and the expressed concerns of State Dissemination Representatives, the National Dissemination Leadership Project (NDLP) conducted three topical dissemination conferences -- on Resource Bases, Management, and Linking Agents. This paper covers the third of these meetings held March 3-4 in Columbia, South Carolina.

The conference brought together dissemination representatives from 34 states, as well as representatives of research institutions and several nationally-known experts in dissemination and information systems. The purpose of the meeting was to exchange notes on relative experiences in dissemination while further refining ideas about the goals, selection and training of linking agents.
From Laboratory to Classroom

Dissemination as a process means bridging the gap between research and practice. Perhaps publications synthesizing research could accomplish this. So could, perhaps, a computerized information system where recent documents and journal articles would be available. But in actuality, they haven't.

Over the past five years, education dissemination experts have increasingly turned their attention to a person -- called, variously a linking agent, extension agent, field agent, change agent, etc. -- who could bridge this gap. Why is an individual needed? Because, as the IPOD report pointed out, dissemination must be a "two-way communication." Publications or other information systems obviously don't meet this standard. Secondly, research in educational dissemination suggests that person-to-person contact is the most effective means of dissemination. Publications can spread the work and make people aware of issues, ideas and innovations. But on something as complex as solving a school system problem or changing an educational program, interaction between professionals is needed.

Working Models Exist

Fortunately, there are working models for linking agents. The agricultural research and development system has for years relied on its county extension agents to link the farmer with the latest in agricultural innovations. For the farmer, the extension agent is a source of information, a problem solver and an expert consultant.
Reflecting on this concept, Reps. John Brademas, D-Ind., and Albert Quie, R-Minn., Chairman and ranking Republican on the House Subcommittee on Select Education Programs, suggested that the National Institute of Education try out a similar system of extension agents. Quie stressed that an extension agent should be a professional, not an outsider who would seem to be imposing his ideas on a local school system.

Several State Departments of Education and a few research institutions have tried out some form of linking agent, but for most states, it is still more of a concept than a reality.

Linking Roles Vary

The Columbia, South Carolina meeting sponsored by NDLP gave state dissemination leaders an opportunity to hear about various linking roles and describe their own experiences in linking research to practice. It should be noted that there is no consensus that linking agents are necessary for an effective state dissemination program. Many dissemination directors see the linking agent as a promising, if untried means of dissemination, but others believe it would be too expensive and unwieldy for a state to fund a series of linking agents. Even those who believe in linking agents support quite different systems. For example, one state may support linking agents who are housed in the State Education Agency and who travel to the districts, while another may help support persons housed in local agencies or intermediate
units who are designated as linkers in the state dissemination system. So, while this paper covers the various views on linking agents, it should not be taken as evidence that most or all the participants see linkers as the only answer.

Since the conference was designed so that all could air their concerns as well as hear the views of others, the conferees first broke up into small groups of about 10 persons. These "family groups", as they were called, formed a home base for the participants since they returned to their original groups several times during the meeting. Each group had a leader and a recorder. In addition, the expert consultants rotated among the groups to share insights with all the participants.

Change as a Process

The conference also heard a presentation on the theory of dissemination by Dr. Herbert Lionberger, a rural sociologist from the University of Missouri and a well-known expert on agricultural dissemination. Lionberger described the classic five steps in dissemination -- awareness, information, evaluation, trial and adoption. This process suggests that an effective dissemination system must be multi-faceted. As such, specialized publications can make farmers aware of new ideas or techniques in agriculture, but a county extension agent can provide the expertise to help him evaluate an innovation. A system that helps with only one or two steps of the process can not be truly effective, he said.
The five-step process also suggests that adoption doesn't come quickly or uniformly. For example, farmers must have enough information before they can evaluate and try out a new technique. This, of course, takes time. And some farmers are always innovators compared to their competitors. They aggressively seek out new ideas and are receptive to innovations. All these points in agriculture have parallel applications to education, Lionberger noted.

Local Research has Credibility

In a special evening session, Lionberger also honed in on what is a key difference between the two systems. In agriculture as well as in medicine, innovations and new products come from the scientific community. They are developed and tested by scientists and only then are they passed on to practitioners. Thus, the agricultural linkers link the scientific community with the farmer.

But in education, innovations are increasingly being developed locally. The U.S. Office of Education's National Diffusion Network was explicitly set up to help spread locally developed innovations, as opposed to ideas or techniques originating in universities or education labs. Lionberger suggested that educational dissemination should make more use of university experts and researchers, but other participants maintained that innovations developed locally were not lesser in quality. In fact, the local input helped to establish their credibility as workable innovations, they said.
Interpersonal Communication Necessary

Later in the meeting, William Paisley of Stanford University described how the linking agent concept has evolved among educational dissemination experts. In the mid-1960's, the U.S. Office of Education (USOE) set up the Education Resources Information Center, better known as ERIC, as a computerized storehouse of journal articles and research reports related to education. ERIC operates through 16 subject-oriented clearinghouses located across the country, with the entire system tied into one computer network. ERIC represented a dramatic step forward for education dissemination, but there was one immediately apparent problem, Paisley said, speaking from his experience as a clearinghouse director. "We set up the store and nobody came," he said. ERIC remained largely a tool for researchers who would take the time to search through micro-filmed abstracts in a library.

In the late 1960's, USOE began synthesizing research on special topics which was then published in a series of PREP reports. This, too, was a step forward and was well-received by many state departments. But PREP also fell short as a total dissemination strategy. Dissemination/diffusion experts say innovations are adopted or a change takes place only after the five-step process -- awareness, gathering information, evaluation, trial and adoption. At best, ERIC and PREP were fulfilling the first two of these steps.
By the early 1970's, when the newly-created National Institute of Education took over ERIC, the talk was of "needs sensing." The dissemination system had to respond better to the needs in the field. But this too proved to be somewhat of a dead end, Paisley said, because ERIC and NIE could not really respond to the vast number of very specific needs. However, a person -- an information broker -- could. This person could truly link the needs of the client with their resource base. Paisley added that along the way, the knowledge base has moved away from the center of the models. Teachers centers, for example, have shown that effective dissemination can take place while the knowledge base remains far in the background.

The Linking Agent

This theoretical base brings us back to the Columbia meeting. There, state dissemination representatives and others had a chance to compare notes on dissemination developments in other states and at the same time describe and define various forms of linkage and linker roles. In the small groups, the conferees considered several questions! What are various forms of linkage? What is a linking agent? What qualities would you look for in selecting a person to fill that position? How should linking agents be trained?

Linker Qualifications

The list of qualities of abilities for a good linker included: communicates well, is also a good listener, not a sales...
man but a problem solver, is able to synthesize information, can help clarify needs, is a seeker of information, a "walking reference manual," understands the politics of school systems, and can feel at home with both researchers and practitioners. This is a rather formidable list of skills and qualities. In fact, one participant went as far as to suggest that the success of linking agents will be based 90 percent on selection and 10 percent on training. However, Paisley argued that some states may err by setting standards that are too high. Many of the desired skills would require years of training. It would be better, he said, to let linking agents grow into their positions, rather than requiring an elaborate selection and training process for a role that is still largely unknown.

Linker Background

A second question is should the linker be a specialist in one subject or a generalist? Several participants suggested that state curriculum specialists could make ideal linking agents. Common sense also would indicate that a math specialist would be best equipped to help math teachers, while someone with no math background would be lost. However, those with more experience in dissemination said their programs have increasingly relied on generalists. The key qualities of the linking agent -- ability to communicate, clarify needs and search out useful information -- prove more important than specific subject knowledge. Others
said their state began with a series of subject-matter specialists who, over time, were able to branch out into other fields.

**Linker's Role**

Should the linker be a "neutral broker" or an advocate of change and innovation? There was some disagreement on this point. Many of the current linking agents in education -- those operating from research centers or through USOE's National Diffusion Network, are advocates of particular innovations. But the linking agent, ideally, should not be seen as a marketing agent or salesman for some innovations, as perhaps an agricultural agent might advocate a new hybrid of corn. Some suggested that a linker's credibility would be damaged if his success depended on marketing innovations. "The goal is solving problems or improving programs, not in adopting innovations," said David Crandall of the Network of Innovative Schools. However, as Paisley pointed out, even if the linker is merely helping to find the best solution to a problem and build commitment to that solution, he must inevitably narrow down the alternatives and put together arguments in favor of a particular option. "There can be no totally neutral linkers," he said.

**Linker Marginality**

One concern of many participants was what would happen once linking agents got on the job. Some predicted that without regular
"nurturing," the attrition rate would be high. Ronald Havelock, of the University of Michigan, argued that the problem was the linking agent's "marginality." In other words, "you're a marginal person for both state departments and local school systems." You can't claim to be a researcher, either. Since the linking agent is by definition "an interface between two worlds," there "isn't a home for linking agents to return to." Without "clear definitions of what we're trying to do and some institutional reality . . . the linkers will fade back into their respective worlds -- research or school systems," Havelock predicted.

Others like Sam Sieber, a consultant from the Virgin Islands, saw marginality as much less of a problem and, in fact, argued that this could be one of the attractions of the job. "After all, as a linker you're the one who attends all the conferences, visits school districts across the states and can tell the superintendent what all his counterparts are doing," Sieber said. "The linker may seem marginal at first, but he soon becomes a very important person."

**Models are Deceptive**

Sieber agreed that the key skill for a linker is the ability to "manage contingencies." He must be "able to adjust rapidly to changing situations, organizational problems and shifting resources." Sieber was critical of elaborate models for describing the linker's role or detailed strategies for training linkers, since prescriptive models or training schemes can never
really capture the essence of the role, especially when it is still in a state of flux.

As a parting thought, Sieber and Crandall suggested that state departments "get something in motion." There is sufficient dissemination research to prove that linking agents are a promising means of dissemination. The next step is simply to try it. Research models or prescribed training strategies cannot encompass the varying situations due to the different structures and personalities of state departments. "These are not all mysterious roles," Crandall said. State curriculum specialists, public information officers and other state agents may now be carrying out similar tasks under a different name. "There may not turn out to be a tremendous gap between now and the future linking agent set-up," he said.

A linking agent's role "will never be diagrammed completely," Sieber said. Dissemination programs in many state agencies are now using linking agents. These linking agents will learn much about the job as they go along, as will the state dissemination directors. As Crandall concluded, the important step is to get it started.

Conference Outcomes

Before adjourning on March 4, the dissemination representatives and consultants got together one last time in their small discussion groups. In doing so, they listed some of what they
learned at the meeting. The lessons and recommendations that follow show that the Columbia meeting was not a political gathering designed to formulate a single resolution for all to stand on, but a learning experience for many with different needs and concerns. As one participant put it, "We may not have the answer, but we are asking the right questions." The following are simple but important statements about the emerging concept of linking the resource base and the practitioner.

LEARNINGS OR OUTCOMES OF THE FAMILY GROUPS

1. We have been discounting the history of this effort -- accomplishments should be lauded.
2. There is a lack of common language and common perception -- we need to define terms.
3. We can learn from linkage in other fields.
4. "Linker Activities" are not unique to "linkers."
5. Although there is a good conceptual framework for the linker role, there are concerns about the type of background the linker should have.
6. Probably the most important qualification for a successful linker is an extraordinary amount of "people sense or sensitivity."
7. Linkage is a complex process which is presently being defined by and in the real world.
8. Model is descriptive, not normative.
9. Various client groups have widely varying needs to which the linker/field agent ought to be sensitive.
10. The objective of the linker should be to help their clients develop knowledge acquisition and utilization skills, rather than to promote adoption.
11. There are numerous linkage functions/roles they can (should) be developed, installed, and managed separately and even independently.

12. There are alternative linker models in development.

13. All linkers are not sustained under a formal structure.

14. There are many organizational alternatives to accomplish "linkage."

15. Consider ways to increase effectiveness of specialists in the SEA, IEA, and LEA systems.

16. There is no simple solution to the "transformation" process.

17. Get decision-makers to utilize more information and rationale in making process decisions.

18. The success of a linkage program seems to be based upon the capacity of the client and the developer to use it.

19. Linker training is both a desocialization as well as a socialization process.

20. "Prescriptions" for linker training are not practical.

21. "Ask the linker" to learn from him/her.

22. We (experts and linkers) don't have all the answers, maybe we are not asking the right questions.

23. There are a number of resources (for training) available.

24. There has been little progress in the development of material and concepts during the last 3-5 years.

25. Communications between and among states is vital.

26. After all is said and done, there appear to be more questions than answers and there seems to be no one way (which is good).

*note - the original list from each group is available from CCSSO.