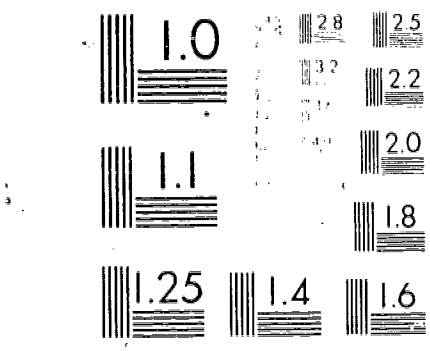

DOCUMENT RESUME

ED 191 462 IR 008 711

TITLE	Interorganizational Arrangements for Collaborative Efforts: Commissioned Papers.
INSTITUTION	Northwest Regional Educational Lab., Portland, Oreg.
SPONS AGENCY	National Inst. of Education (DHEW), Washington, D.C.
PUB DATE	29 Feb 80
CONTRACT	NIE-R-79-0029
NOTE	233p.: For related documents, see IR 008 710-714.
EDRS PRICE	MF01/PC10 Plus Postage.
DESCRIPTORS	*Educational Cooperation; *Educational Improvement; Educational Research; *Educational Resources; Federal Programs; Grants; Improvement Programs; *Information Dissemination

ABSTRACT

The ten papers in this collection commissioned by the Northwest Regional Educational Laboratory take positions and speculate about particular obstacles which collaboratives and intermediaries face in working toward the improvement of educational practice and equity through regional approaches. The papers discuss (1) the essential characteristics of interorganizational collaboratives; (2) the nature of past and present efforts; (3) previous federal participation in school improvement; and (4) implications and suggested strategies for future school improvement projects. Three of the authors look specifically at federal involvement in school improvement and conclude that the resulting advantages far outweigh objectionable requirements. Five of the authors explore various facets of the linkages, mechanisms, and roles which make collaboration effective or ineffective in achieving goals. The two remaining authors focus on the nature of dissemination activities that work. (Author/RAA)

Interorganizational Arrangements For Collaborative Efforts

COMMISSIONED PAPERS

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for the:

Regional Program
Program for Dissemination and Improvement of Practice
National Institute of Education

February 29, 1980

The work upon which this publication is based was performed pursuant to Contract No. NIE-R-79-0029 of the National Institute of Education. It does not, however, necessarily reflect the views of that agency.

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FOREWORD

The materials in this document are part of a larger collection of reports prepared by the Dissemination Program of the Northwest Regional Educational Laboratory (NWREL). They were produced as a result of a contract awarded by the Regional Program (RP) of the National Institute of Education (NIE), Program for the Dissemination and Improvement of Practice. The Regional Program stimulates and supports mechanisms for improving educational practice and equity through regional approaches. It emphasizes interagency collaboration among decision makers in regions, states, local school districts, regional laboratories, research and development centers, colleges and universities and other educational organizations.

The Regional Program has developed a plan that calls for a set of activities designed to focus organizational resources and capacities on NIE's two goals of improving practice and increasing equity in schools. A major component of the plan is a program that will fund a variety of organizations working in collaboration to undertake promising approaches to practice improvement. The activities carried out by NWREL were designed to provide information and thinking that would be used by Regional Program staff in designing this funding program.

Under the NWREL contract, two seminars were held where RP staff and selected practitioners together explored the issues related to organizational collaboration for practice improvement. This resulted in the volume entitled Seminar Proceedings.

Work was also done to provide a basis from research and from other literature for further consideration of Regional Program issues. This resulted in two volumes titled Commissioned Papers and Literature Review.

The contract also resulted in a compilation of information about existing interorganizational arrangements for improving educational practice. This resulted in the volume titled Project Studies. The fifth volume attempts to derive and pull together implications and conclusions from all of these activities and is titled Final Report.

Each of the activities conducted by NWREL was designed to explore four issues that the Regional Program believed were key to planning the new program. These issues were expressed as a series of questions related to the outcomes of improvement of practice and increased equity, through the strategy of supporting alternative forms of interorganizational collaboration and to the mechanism of working through intermediaries. Although these and other relevant questions have not been answered fully, a major step has been taken through the "collaborative efforts" project. This document is made available to you for your own use and to help the Regional Program further understand and clarify issues related to these general topics. We would appreciate your reactions to this document and to the others in this series. Your comments will assist us as we continue to develop and improve the Regional Program. Thank you for your help.

David P. Mack, Regional Program
Team Leader for Development
National Institute of Education

W. E. Ellis, Assistant Director for
Regional Program
National Institute of Education

OVERVIEW

To explore potential new approaches to achieving the goals of improvement of practice and increasing equity, the Northwest Regional Educational Laboratory, in cooperation with the National Institute of Education, commissioned the writing of ten original papers. The writers--representatives of the areas of theory, practice and action research, as well as representatives of the NIE Regional Program's target groups of teachers, administrators, chief state school officers and school boards--were asked to take a position and then speculate about particular obstacles which collaboratives and intermediaries might face in working toward better practice and educational equity. The papers discuss the:

1. Essential characteristics of interorganizational collaboratives
2. Nature of past and present efforts
3. Previous federal participation in school improvement
4. Implications and suggested strategies for future school improvement projects

Three of the authors look specifically at the role of the federal government in school improvement from different viewpoints: The view of the chief state school officer is presented by Anne Campbell, Nebraska Commissioner of Education; the view of the school superintendent by Ruth Love, Superintendent of Oakland Public Schools; and the view of the building administrator by Samuel L. Williams, an elementary principal in Lauderhill, Florida. Their conclusion is basically the same: federal support is absolutely essential; it has been accompanied by irritating and inhibiting restrictions and paperwork; and in the balance, the resulting advantages to students far outweigh objectional requirements.

Five of the authors explore various facets of the linkages, mechanisms and roles which make collaboration effective or ineffective in achieving goals.

Rex Hagans, NWREL, and Henry M. Brickell, Policy Studies in Education, look at the nature of dissemination activities that work. Hagans specifically examines how a network of institutions which are developing a specific product or products can effectively link with larger networks of common concern. He suggests that by "nesting" a product development effort in networks which are geographically, issue and special-interest based, the success of dissemination and improvement of practice can be enhanced.

Brickell suggests that "important" changes in education are mandated by state and federal governments through court decisions, legislation and administrative regulations, with relatively "unimportant" changes in practice being left to the discretion of educational professionals. He concludes that the most effective dissemination change efforts involve a "classic one-two punch" of a "stinging mandate followed by powerful technical assistance."

Looking at the relationship between researchers and practitioners, Terry Deal, Harvard School of Education, contrasts a productive relationship with what actually exists. For effective linkage between research and practice to occur, there needs to be a commonality of views, purposes and goals. Actually, he contends, "the pathway to a useful linkage between the two is blocked by the existing relationship, which is overwhelmed with mistrust, conflict and tension."

The role of the principal in the school improvement process is the focus of the paper by James M. Lipham, University of Wisconsin. He contends that a major factor inhibiting effective change agentry is that too little attention has been given to the relationship between principals and external consultants, as well as to the interaction between teachers and principals in school-based decision making.

Two of the authors--John Heflin, Portland State University, and Dean Chavers, Bacone College--focus on questions related to educational equity.

Heflin makes three points in particular. First, it is important to conceptualize equality of educational opportunity and its various dimensions as a prerequisite for R&D efforts to improve educational practice. Second, the educational R&D industry has not previously given high priority to the educational equity concept. Third, a network of organizations for this purpose should include civil rights advocacy organizations, research and development organizations, state education agencies, teacher organizations, citizen advocacy organizations and intermediate education agencies.

Chavers proposes that the disadvantaged segments of the society have limited access and made little use of the present system because there are few members of these segments involved in policy making, in agenda setting and in gatekeeping in the educational system. "The disadvantaged are isolated from the educational system by the lack of active involvement with the system in some cases (social isolation), by geographic isolation in other cases, by linguistic barriers in other cases, and by cultural differences in still other cases."

Examining the problems in measuring educational improvement, Michael Fullan, Ontario Institute for Studies in Education, concludes, "There are specific possibilities for measuring the direct use of information and the consequent impact. However, where people are affected by their exposure to R&D, but not in definable, behavioral ways, serious problems of measurement exist."

These papers raise more complex questions than they answer--but a critical step in problem solution has been taken--the questions are raised. . .

Virginia Thompson, Director
Dissemination Program
Northwest Regional Educational
Laboratory

ACKNOWLEDGMENTS

Of the many individuals who have participated in the preparation of these papers, special recognition is due to three groups of people.

First, there are a great many individuals who nominated titles and authors for inclusion in this important activity. The compressed timelines, budget constraints and the focused nature of the papers necessitated a laborious selection process. This assistance greatly aided in the selection of authors and topics.

Second, the writers themselves deserve special recognition. The time constraints of the project imposed pressure on them to produce a product in a very short time period. We appreciate their willingness to work with us.

Third, many staff members of the Northwest Regional Educational Laboratory have contributed significantly to the preparation of this document. In addition to staff members within the Dissemination Program who coordinated the overall process of commissioning the papers, people in other support units of the Laboratory assisted in the many tasks involved in the production of this monograph.

The immeasurable contributions of all of these individuals is gratefully acknowledged.

Alternative Organizational Arrangements, Educational Equity and School Improvement: Issues and Prospects for Educational Research and Development

Dr. John F. Heflin, Graduate Program in School Administration, Portland State University

It is important to conceptualize equality of educational opportunity and its various dimensions as a prerequisite for R&D efforts to improve educational practice. At this time, the educational R&D industry has not given high priority to the educational equity concept. A network of organizations for this purpose should include civil rights advocacy organizations, research and development organizations, state education agencies, teacher organizations, citizen advocacy organizations and intermediate education agencies.

Key Points: The **R&D process** may be conceptualized in four steps or phases:

1. Research (basic and applied)
2. Development/Synthesis of Research Findings
3. Field Testing/Validation
4. Dissemination/Installation

There can be **no dissemination** of validated educational processes **until the basic research** has been **conducted.**

Until we have a **body of social/psychological scientific knowledge** claims which can be **validated** and disseminated, the educational R&D industry should give strong consideration to **conceptualizing alternative organizational arrangements as experiments.**

Some **research into the equity concept is needed before** states and localities can **operationalize** the many dimensions of **equality of educational opportunity.**

Recently there has been a **re-examination** of the **assumption** that **equalizing financial inputs effectively equalizes educational opportunity.** This has led to thinking about the **output concept,** with people now demanding that schools shift from a passive role of merely "providing facilities" to **an affirmative role of providing effective opportunity** as measured by years of schooling completed and achievement as measured by test scores.

During recent years most of the **major breakthroughs in providing educational equity** have come primarily from **judicial and legislative mandates.**

For various state agencies to **implement mandates,** they **need the resources** of the **legal sector** and the **educational R&D sector.** Educational organizations such as the regional laboratories and centers could **provide** invaluable **technical assistance** by documenting and synthesizing the research and experience of educators and social scientists. This information would provide the data needed by state education agencies and specialists.

Teacher **training institutions** can play a key role in assisting state education agencies in **shaping programs and inservice training models.**

Other **key organizations** in an organizational collaborative are the **local education association and citizen advocacy organizations.**

Intermediate **education agencies** are increasingly important as **service delivery systems.**

Recommendations: Expanded organizational research is needed which probes into the relationships between organizations and their environments and organization relationships with other organizations. With this kind of knowledge base, education planners and problem solvers will be more capable of postulating optimum interorganizational arrangements and the process for collaborative sponsorship. A key variable is the decision making autonomy of participating organizations.

ALTERNATIVE ORGANIZATIONAL ARRANGEMENTS, EDUCATIONAL EQUITY AND SCHOOL IMPROVEMENT: ISSUES AND PROSPECTS FOR EDUCATIONAL RESEARCH AND DEVELOPMENT

Dr. John F. Heflin, Graduate Program in School Administration,
Portland State University

The purpose of this paper is to explore and analyze some of the key issues to be considered in improving educational practice and increasing educational equity through alternative organizational arrangements. The paper is divided into four sections: section one presents a brief interpretation of the educational research and development process; the equity concept and its implications for education is explored in section two; a framework for analyzing intergovernmental relations in American education with suggestions for interorganizational collaboration is discussed in section three; and section four presents brief summative comments about potential alternative organizational arrangements for the improvement of educational practice.

Section I: Educational Research and Development and School Improvement

During a period of approximately five years, 1965-70, the regional educational laboratories grew from an idea of the Gardner Task Force into a viable education network for addressing many of the pressing problems in education. This achievement was made possible primarily through a program of:

1. Development, testing and installation of new systems of instruction
2. Development of curriculum materials
3. Development of organizational innovations (such as new administrative structures) which facilitate the adoption of new educational strategies
4. Development of systematically developed and carefully tested approaches to equalizing educational opportunity

The transition from the Lyndon B. Johnson administration to the Richard B. Nixon administration marked a period of renewed commitment to the process of educational research and development (R&D) and supporting mechanisms to improve these processes; this commitment to educational research and development was crystallized with the establishment of the National Institute of Education (NIE) in 1972. Congress, in its enabling legislation, charged NIE with the responsibility to improve American education through:

1. Strengthening the scientific and technological foundations of education
2. Advancing the practice of education as an art, science and profession
3. Building an effective educational research and development system
4. Helping to solve or alleviate the problems and achieve the objectives of American education[1]

Given the program of the regional laboratories and development centers and the mandate of the National Institute of Education outlined above, it is appropriate to examine the basic R&D processes by which these school improvements will be realized. These R&D processes may be conceptualized in four steps or phases:

1. Research (basic and applied)
2. Development/Synthesis of Research Findings
3. Field Testing/Validation
4. Dissemination/Installation

It is rather obvious, but bears repeating: there can be no dissemination of validated educational processes and products until the basic research has been conducted. This rather simple observation has, at least in this author's opinion, some powerful implications for NIE's

programs or grants and contracts for the 1980's. The major task of NIE and the regional program can be reduced to the following proposition:

> When you use certain products with personnel who have received training to act in these ways and under specified conditions, you will achieve these results with these learners.

The above proposition summarizes the essence of the educational R&D mission. But until we know more about the dynamics of the learning characteristics of various learner populations, curricular interventions and teacher student interactions, it is premature to place an undue amount of faith in alternative organizational arrangements. Until we have a body of social/psychological scientific knowledge claims which can then be validated and disseminated, the educational R&D industry should give strong consideration to conceptualizing alternative organizational arrangements as experiments. A case in point is the way the R&D industry has treated the equity concept. Conceptualization of educational equity is a critical research and development task. But current USOE, NIE and regional laboratory treatment of the concepts, policies and programs designed to promote educational equity do not receive high priority. It is highly doubtful that American education will come to grips, in any meaningful way, with program improvement until the concept of equality of educational opportunity is conceptualized and systematically researched and developed. To that end, the next section of this paper explores and analyzes some of the major approaches to increasing equality in American education.

Section II: The Equity Concept and Educational R&D

The regional laboratories and the National Institute of Education are on record in support of the concept of equality of educational opportunity in

their printed materials. According to one publication from NIE, the mission is as follows:

> The National Institute of Education (NIE) was established by Congress on August 1, 1972, to support the policy of the United States to provide to every person an equal opportunity to receive an education of high quality regardless of race, color, religion, sex, national origin, or social class. While the Congress recognizes that the direction of education remains primarily the responsibility of state and local governments, the federal government has a clear responsibility to provide leadership in the conduct and support of scientific inquiry into the education process.[2]

Most American educators support the concept of equality of educational opportunity, but gaps remain in the pronouncements of educational equity and operationalizing the concept within buildings and classrooms.

It is this author's belief that there needs to be more research into the equity concept before states and localities can operationalize the many dimensions of equality of educational opportunity. Just as the federal government has a pronounced policy on equality of educational opportunity, many state governments and local school districts have similar policies on the books. However, these same states and school districts, with their written pronouncements on equality of educational opportunity, continue to violate standards of equity based upon race, national origin, sex, religion, age, handicap and marital status. Many school districts are not aware of newly developed statutory and case law and, as a consequence, are open to law suits for denial of equality of educational opportunity.

Should the regional program and NIE elect to explore the equity concept on a more systematic basis, it could begin by reviewing the social science literature, synthesizing the equity theories and shaping some propositions for future educational R&D. One finds that the equity concept abounds in educational literature. But in recent years, as a result of developments in

school law and societal expectations, difficulties have arisen as educators attempt to realize this American ideal.

Sociologists, historically, have given a considerable amount of energy to the study of school inequality. A general conclusion is that school inequality is present in all contemporary societies. One social scientist has noted:

> ...In the past, societies have differed greatly in their attitudes to equality, but in the modern world it would be hard indeed to find any society whose members are indifferent to the problem . . . The USA and USSR alike justify their respective systems by the argument that they provide the best opportunities for real social equality. For the more backward societies, the chief appeal of industrialization is the promise it holds of bringing inequality under control.[3]

Needless to say, there are differences between American and European scholars in their approach to the study of equality. Europeans tend to occupy themselves with the study of class in the Marxian tradition, while American scholars focus on the broader issues of social stratification. It should be noted there are also some differences between American scholars as to whether social class differences or race is the most powerful independent variable impacting on racial oppression in America. That debate is the subject of an ongoing discussion and cannot be treated indepth within the scope of this paper. However, as federal, state and local governments come to grips with operationalizing the concept of equity, they will find the race and social class debate to be a recurring theme.

Let us now turn our attention from the social science conceptualization to a recent U.S. Congressional study which provides a wealth of data for specifying some of the clinical contours of equality of educational opportunity.

On February 19, 1970, the U.S. Senate passed Senate Resolution 359 (91st Congress), which reads as follows:

> Whereas the policy of the United States to assure every child, regardless of color or national origin, an equal opportunity for quality education has not been achieved in any section of the country: Now, therefore, be it Resolved that a committee be established to study the effectiveness of existing laws and policies in assuring equality of educational opportunity, including policies of the United States with regard to segregation on the grounds of race, color, or national origin, whatever the origin or cause of such segregation and to examine the extent to which policies are applied in all regions of the United States.[4]

This U.S. Senate inquiry, which lasted nearly three years, sought to make the connection between conceptualizations of educational equity and processes and standards for implementation. Summoned before this committee were students, parents, teachers, school administrators, social scientists, academic experts, foundation representatives and government officials.

In setting the committee scope of inquiry, several recognized scholars were asked to provide testimony. Among the first witnesses to testify was Kenneth Clark, professor of social-psychology at the City University of New York and Director of the Metropolitan Applied Research Center. Clark for years has been one of the leading social scientists in the struggle to provide equal educational opportunity. Moreover, he provided much of the social-psychological research evidence for Thurgood Marshall and the NAACP attorneys who argued the Brown v. Topeka Board of Education case in 1954. Clark's basic conceptualization of equality of educational opportunity may be summarized as follows:

> To separate them (Blacks) from others of similar age and qualifications solely because of their race generates a feeling of inferiority as to their status in the community that may affect their hearts and minds in a way unlikely to ever be undone.[5]

According to Clark, the social-psychological testimony submitted to the U.S. Supreme Court included a section which focused on the implication of segregation for the majority students. However, for some reason, this section was eliminated when the U.S. Supreme Court rendered its decision. Segregation has negative consequences for majority group students because:

> The culture permits and at times encourages them (Whites) to direct their feelings of hostility and aggression against whole groups of people, the members of which are perceived as weaker than themselves. They often develop patterns of guilt feelings, rationalizations and other mechanisms which they must use to protect themselves from recognizing the essential injustice of their unrealistic fears and hatreds for minority groups.[6]

The above statements form the essence of Clark's testimony. A content analysis indicates that his message to the Senate Committee was one of desegregation and integration of American schools. And by accomplishing this objective of equality of educational opportunity (through desegregation), America might ultimately achieve the goal of social equality.

In short, there are two kinds of data for refinement and research contained in Clark's testimony. First, there is the obvious definition of equality of educational opportunity in terms of the elimination of dual school systems and racial isolation. A second kind of data is contained in the section which offers some propositions about the impact of dual school systems on majority group students. This line of social-psychological testimony outlines the basic characteristics of racism and a "blaming the victim" psychology.[7] It is this author's conviction that until the American education enterprise acknowledges and researches, systematically, the dynamics of the "blaming the victim" psychology, all the other learning theories, instructional systems and curricula interventions will be rendered meaningless. Hilliard asserts that educational psychology does not have a highly developed body of research on racism and its impact on learning for

both the minority and majority students.[8] For the moment let us briefly describe the "blaming the victim" concept and its basic dynamics. According to Ryan, one way to introduce this psychological concept is by reviewing the following comedy sketch:

> Twenty years ago, Zero Mostel used to do a sketch in which he impersonated a Dixiecrat Senator conducting an investigation of the Origins of World War II. At the climax of the sketch, the Senator boomed out, in an excruciating mixture of triumph and suspicion, "What was Pearl Harbor doing in the Pacific?"[9]

These analytical processes are being applied daily to many of America's social problems, including education. Ryan suggests a reconsideration of the miseducated child in a slum school. The child is a victim. He is blamed for his own education. According to many social-psychologists and educators, the child is said to contain within himself, the causes of his inability to read and write well. The code word for this condition is "cultural deprivation." The child supposedly does not have books at home and the parents do not read to the child at home. The child speaks a dialect which is different from the teacher. Teachers are said to have difficulty in getting this type of child to sit in his seat. The professional diagnosis is that the child is "socially deprived" and disadvantaged and this, of course, accounts for his failure to achieve in the school setting.[10]

Observe the thread of similarity throughout the Clark testimony, the Mostel sketch and the plight of the slum child. What are the conditions of the social environment in which the child attends school? What is wrong with the victim? Ryan suggests that in pursuing the "blaming the victim" logic, "no one remembers to ask questions about the collapsing buildings and torn textbooks; the frightened, insensitive teachers; the six additional desks in the room; the blustering, frightened principals; the relentless

segregation; the callous administrator; the irrelevant curriculum; the bigoted or cowardly members of the school board; the insulting history book; the stingy taxpayers; the fairy tale readers; or the self-serving faculty of the local teachers college."[11]

The professional prescription encourages us to dwell on the shortcomings of the student. Cultural deprivation becomes a code word for a disasterous condition of miseducation. This kind of social-psychological logic blames the victim. Any meaningful attempt to increase educational equity must come to grips with the racism described by Clark and the "blaming the victim" psychology proposed by Ryan.

Now let us return to the expert witnesses called before the U.S. Senate to shape the scope of the inquiry. Thomas Pettigrew, professor of social relations at Harvard, testified that, in his opinion, one of the essential components of equal educational opportunity for the United States is the racial and social class integration of the nation's schools. He further states that social science evidence formed the basis of this conclusion.[12]

Another expert witness, Uvaldo Palomares of the Human Development Training Institute, provided testimony on the merits of teacher training and retraining in the area of intergroup and interpersonal relationships. His concern was that human relations training in teacher preparation programs has been left completely up to chance. His concluding remark was, "if teachers were more adequately prepared in this area, the teacher would listen to the students more and be less prone to ignore them, their feelings and their needs."[13]

Whereas, Pettigrew's testimony essentially supported that of Clark, Palomares suggests teacher attitude and teacher interpersonal competencies are critical in any strategy to equalize educational opportunity.

Key among the remaining expert testimony was that of James Coleman who was then professor of social relations at Johns Hopkins University (currently at the University of Chicago). When asked to define equality of educational opportunity, he responded by outlining three major dimensions based upon an analysis of American educational history.[14] The first is based upon the idea of a common school, as compared to the elite, dual systems of Europe. A second definition identifies inputs into the school system. Principally, financial resources are seen as inputs. The third definition focuses upon educational output; this definition directs our attention to school facilities and processes which insure educational effectiveness as opposed to merely providing facilities; this definition also focuses on the school and the schooling processes as opposed to focusing upon the shortcomings of the child. In short, this definition shifts the locus of the achievement problem to the educational institution rather than focusing totally on the child and a blaming the victim psychology.

Further analysis of these conceptions of equality of educational opportunity reveals two major challenges have been made on the first dimension. Throughout the South and to some extent in the North and West, there were separate schools for Black Americans. This was a direct contradiction to the expressed ideal of equality of opportunity expressed in American educational literature. The second challenge to the first conception is based on the development of unequal schools as a result of socio-economic inte_ation; this challenge has resulted in social segregation in education as well as inequities in school financing.

Prior to the Brown decision in 1954, American education operated under the "separate but equal" doctrine established in Plessy v. Ferguson (1896).

In short, equality is seen to exist for two racial populations if the financial expenditures for the average child in each of these two populations is equal. This perspective would, in principle, allow for segregation based upon race or socio-economic status. However, based upon the recent movement for accountability, there has been a re-examination of the assumption that equalizing financial inputs effectively equalizes educational opportunity. This re-examination of the assumptions behind the input concept has led to new thinking about the output definition. As a result of this output concept, parents and taxpayers are now demanding that school systems shift from a passive role of merely "providing facilities" to an affirmative role of providing effective opportunity as measured by standardized test scores.[15] The current legislative mandates for performance or goal based education are excellent examples of these new accountability demands placed upon American educational institutions. And it is clear that during the current period of "steady state" economy in education, this third conception will continue to gain in importance in the design of educational programs; and there are clear implications for the educational R&D community.

This U.S. Senate inquiry provides valuable definitional, conceptual, empirical and clinical data on the equity concept. Based upon the expert testimony cited above, some summative observations can be offered about the various dimensions of equality of educational opportunity. Dimensions of equality of educational opportunity may be summarized as follows:

1. The degree of racial separation
2. The level of resource inputs from the school system (the inputs include financial resources in addition to requisite social-psychological competencies and communication skills of the teacher)

3. The level of input resources based upon their effectiveness for achievement

4. Measures of student outcome variables (based upon standardized achievement tests)

In summary, these four dimensions of equality of educational opportunity will continue to shape frameworks for the education community in fashioning policies and programs designed to increase educational equity. Similarly, it is critical that the educational R&D establishment address each of these equity dimensions as a prerequisite to massive efforts to structure alternative organizational arrangements aimed at program improvement.

Section III: Conceptualizing and Defining the Characteristics of Alternative Organizational Arrangements Within the Context of the Equity Mandate

Social scientists have also been interested in organizations for some time. During the past thirty years, efforts to understand the dynamics of organizations have increased rapidly. Efforts to document and specify trends in organizational behavior are exemplified by Blau and Scott's Formal Organizations: A Comparative Approach,[16] March and Simon's Organizations,[17] Cyert and March's A Behavioral Theory of the Firm[18] and Graham Allison's Essence of Decision.[19] These organizational studies generally focus on organizational behavior in the private sector or policy making within the federal government.

Although educational institutions may be classified as "public" or "nonprofit" organizations, it is likely that the prescriptions gleaned from the research above cannot have a direct application to educational organizations unless more is known about the behavior of educational institutions. To that end there is a stream of research on educational organizational behavior exemplified by Rogers' 110 Livingston Street,[20] Bailey and Mosher's ESEA: The Office of Education Administers a Law,[21]

Sarason's The Culture of the School and the Problem of Change,[22] Gross' Implementation of Innovation,[23] Spiva's "An Exploratory Analysis of the California State Board of Education and Its Policies Towards Racial Isolation in the Schools"[24] and Heflin's "Implementation of School Desegregation Policy: An Analysis of the California State Department of Education Experience."[25]

These examples of research on educational institutions are evidence of interest in educational organizations and to a large degree, the findings are consonant with the theoretical proposition advanced by March. This proposition posits that educational institutions, to a lesser or greater degree share the same characteristics as other public institutions: (1) educational goals and objectives are highly ambiguous; (2) the relationship between resource inputs (class size, teacher effort, curriculum, etc.) and outputs (self-concept and academic achievement) are not highly specified; and (3) these organizations function in environments of uncertainty. However, for this theory to be of maximum use to educators, more research must be conducted on each of these three dimensions of the March theory. A major limitation of this strand of research is its primary focus upon internal structure, functioning and performance of organizations and the behavior of groups and individuals therein. The leading school of thought for this strand of research is "decision making in organizations" or "decision making under ambiguity."[26] Although there are variants upon this analytic paradigm (decision making), the primary research focus remains internally oriented. Expanded organizational research is needed which probes into the relationships between organizations and their environments and organization relationships with other organizations. With this kind of knowledge base, education planners and problem solvers will be more capable

of postulating optimum interorganizational arrangements and processes for collaborative sponsorship.

Up to this point, we have suggested that organizational research with an internal dynamics perspective prevails in the literature. New research is needed which informs us about interorganizational arrangements. This small but expanding body of literature is perhaps best exemplified by the work of William Evan. He cites the following as some of the well known examples of interorganizational dynamics:

1. Allocation of resources to public relations
2. Cooptation of personnel of environing organizations into leadership positions in order to reduce the threat they might otherwise pose
3. Acquisition of and merging with competitions
4. Use of espionage against competitors
5. Recourse to litigation, arbitration and mediation[27]

These and many other interorganizational phenomena await systematic analysis by organization theorists. One way to approach interorganizational phenomena is by examining the "role set" theory and applying it to organization se's. Simplified, the role set consists of the total complex roles and relationships that the occupant of a given status has as a result of occupying that status. A prime example is the college professor who interacts not only with students, but also with other professors, the head of the department, the dean of the school and occasionally the president or members of the board of trustees.

Analagous to Merton's role set is what Evan calls the "organization set." He merely substitutes the organization for individual status as the primary unit of analysis. By making this simple substitution, it is possible to take an organization or a class of organizations or

organizations with similar or common task environments and trace the real or potential interorganizational networks. Conceptually, organization sets are mediated by:

1. The role sets of its boundary personnel
2. The flow of information
3. The flow of products and services
4. The flow of personnel[28]

Obviously, there will be conflicting demands by members of the organization set. Consequently, it would require that the convening organization or the focal organization (target of the cooperative services) develop processes for resolving potential conflicts.

Whether this theory has any utility remains to be seen; it would have to be tested empirically. But Evan offers some plausible hypotheses which warrant consideration as federal level interventions are initiated to promote interorganizational arrangements. Key among Evan's hypotheses are:

1. The higher the concentration of input organizational resources, the lower the degree of autonomy in decision making of the focal organization.
2. The greater the size of the organization set, the lower the decision making autonomy of the focal organization, provided that some elements in the set form an uncooperative coalition that controls resources essential to the functioning of the focal organization, or provided that an uncoopertive single member of the set controls such resources.
3. The greater the degree of similarity of goals and functions between the organization set and the focal organization, the greater the amount of competition between them, and hence the lower the degree of decision making autonomy of the focal organization.
4. The greater the overlap in membership between the focal organization and the elements of its set, the lower the degree of decision making autonomy.[29]

A key observation about the above hypotheses is the dependent variable in the decision making autonomy of the focal organization. This

observation, translated into layman's terms, is "how much control does the focal organization have to relinquish to receive the products and services of the interorganizationa collaborative?" From Evan's decision making hypotheses, a number of additional propostions may be generated relative to the conditions for optimum cooperation between the members of the interorganizational collaborative.

Against this background of organizational theory and related hypotheses, we now turn our attention to further exploration and examination of interorganizational dynamics in education. Before exploring these dynamics and speculating about optimum interorganizational arrangements, let us describe the normative structures in American education policy making and administration.

The National Institute of Education, according to this present RFP, is exploring the possibilities of stimulating and supporting alternative educational organizational arrangements. However, NIE will have to operate within an intergovernmental framework (see Figure I). NIE is an organization which is funded by the U.S. Congress as the R&D arm of the U.S. Department of Education, with the specific objective of improving the educational services and products available to students in the 16,000 to 17,000 local school districts. Because NIE's primary service delivery target area is the local school district and because, as a federal agency, it is subjected to Congressional oversight authority, NIE will only be allowed to support alternative research and development activities which fall within the federal government's definition of legitimate education related organizations. Stated differently, NIE will be limited by Congress as to the kinds of alternative organizational arrangements it may support. Given this assertion, what kind of collaboratives can be structured?

Figure I

Influences on Educational Policy Making in the United States

	National	State	Local
General Legislative	(1) Congress	(2) State Leg.	(3) Common Council
Educational Executive	(4) President	(5) St. School Bd.	(6) Local School Bd.
Executive	(7) President	(8) Governor	(9) Mayor
Administrative	(10) Dept. of Ed.- NIE	(11) St. Dept. of Ed.	(12) School Supt.
Judicial	(13) Supreme Crt.	(14) St. Supreme Crt.	(15) Federal or State District Crt.
Professional Interests	(16) NEA and AFT	(17) State Teachers' Association	(18) Local PTA
Other Private Interests	(19) U.S. Catholic Conference	(20) St. Chamber of Commerce	(21) John Birch Society Chapter

Adapted from Stephen K. Bailey and Edith K. Mosher, ESEA: The Office of Education Administers a Law (Syracuse: Syracuse University Press, 1968) p. 222.

Figure I[30] provides a point of departure to begin to speculate about possible options.

Matthew Miles in his paper, "Networking" outlines six "problem frames."[31] According to his typology, these problem frames form alternative purposes for interorganizational arrangements. The labels attached to these frames are: (1) Backwardness/Obsolescence, (2) Inequity, (3) Stagnation, (4) Isolation, Resource Poverty, (5) Anomie and (6) Unshared Craft. For the purposes of exploration, let us focus on the Inequity frame and relate it to Figure I.

Suppose a state legislature passed a statute prohibiting discrimination in all state supported educational organizations. The language of the legislation is as follows:

> Equal educational opportunity shall be provided to all students in the schools of this state. Lack of funds to provide services for special student populations shall not constitute a valid reason for nondelivery of services. These services shall be delivered independent of race, national origin, religion, sex, handicap, marital status or age.
>
> The State Superintendent of Instruction and the Chancellor of the State System of Higher Education are to conduct an assessment of equality of educational opportunity within their respective systems and report the findings of the assessments to the next legislative assembly.

Given this scenario, a key phase in this far reaching legislative mandate is the implementation process. What might be the role of NIE in promoting equal educational opportunity? Although the R&D process is important and is very necessary to provide a knowledge base for improving education, research will not have the immediate impact of the kind of legislative mandate outlined above. Clearly, this mandate shifts the "problem set" focus to the issue of equity (according to Miles). For this legislative mandate to have broad impact, some very well planned interorganizational arrangements will have to be formed.

Consider the following implementation process. After passage of the legislation, the administrative mandate then falls to the state education agency and the Chief State School Officer to see that the legislative intent is met in the K-12 sector. Then, the State System of Higher Education and the State Chancellor will be charged with implementing the mandate at the higher education level.

Each of these state executives will delegate this task to the appropriate unit within their respective organizations. This author's experience suggests that the organizational administrators who are delegated this responsibility will not have any training or background in conceptualizing the educational equity concept, nor will the unit personnel have any experience in drafting implementation plans and establishing compliance criteria.[32] A common administrative response by state level administrators is to talk about the enormity of the task involved and the costs of designing an implementation plan. On the political side, if these chief executive officers are elected, they will be most cautious in designing monitoring and compliance plans to assess the degree to which equal educational opportunity is being provided to all the state's students.

Why have we provided this scenario? Why have we described a legislative response to the equity concept? First, during recent years, most of the major breakthroughs in providing educational equity have come primarily from judicial and legislative mandates. Change, through educational R&D, moral convictions or educational leadership has not been that impressive. Second, this scenario allows us to begin to synthesize the concepts, research, strategies and experience detailed in the foregoing sections of this paper.

For the various state agencies to implement the equity statute, in spirit and intent, they will need the resources of the legal sector and the

educational R&D sector in defining the various dimensions of equality of educational opportunity. Consequently, an "organization set" of the relevant state education agency and a lawyer's organization or civil rights organization comes to mind; the Lawyers Committee for Civil Rights Under the Law or the National Association for the Advancement of Colored People or the American Civil Liberties Union are prime examples. These organizations could play a critical role because, unless the state education agency has a highly progressive administration, the technologies for implementing the equity concept will not be present.

Once the legal parameters of the educational equity mandate have been probed, the state education agency will need assistance in shaping the educational considerations involved in implementing educational equity at the local school district level. Educational organizations such as the regional laboratories and centers could provide invaluable technical assistance by documenting and synthesizing the research and experience of educators and social scientists such as Clark, Palomares, Pettigrew and Coleman discussed in Section II of this paper. This information would provide the data needed by state education agency administrators and specialists in going beyond the legislative mandate and the legal requirements. It is at this point the teacher training institutions can play a key role in assisting the state education agencies in shaping programs and inservice training models to implement the equity concept.

Another key organization for consideration as a potential member of this organizational collaborative is the local education association. With the advent of collective bargaining laws, the shift in power to the teachers collective has become quite clear. As a direct result of collective bargaining laws, school board and administrative, discretionary decision

making has been altered significantly. Teacher organizations now use terms such as "controlled leadership" when referring to board members and administrators. Clearly, in administering new educational innovations at the local level, one must calculate the reaction of the local teacher's organization. Therefore, it seems crucial that teacher organizations be included in the collaborative network.

With the incorporation of mandated citizen participation components in many federal categorical aid programs during the sixties and seventies, parent and citizen participation in educational governance has become commonplace. As a result of this movement, it is imperative that citizen advocacy organizations be considered for inclusion in any potential organizational networking. This type of organization can be classified as other private interests according to the typology in Figure I.

Intermediate education agencies (IEAs) do not appear on the chart (Figure I), but they are strategic and will become increasingly important in the future as new service delivery systems are designed. IEAs are also in a position to coordinate many of the alternative collaborative arrangements explored in this paper. By definition, IEAs are regional organizations and have the potential to support a wide range of "problem frames" suggested by Miles.

The preceding discussion has explored some possible organizational arrangements for the delivery of services within the context of the equity mandate. A number of organizational arrangements are possible. A pilot phase would allow the organizations within the collaborative to work out arrangements and to provide feedback to the organizational broker. Once this kind of feedback is obtained, the potential for designing more effective interorganizational arrangements will be increased.

Section IV: Conclusion

This paper has examined elements for consideration in establishing alternative organizational arrangements for improving educational practice at the district level. The paper has stressed the importance of conceptualizing equality of educational opportunity and its various dimensions as a prerequisite for R&D efforts to improve educational practice. Educational R&D is seen as an important activity for improving educational practice. But the educational R&D industry has not given high priority to the educational equity concept.

A brief review of the literature on organizational theory was introduced for the purposes of establishing theoretical bases for analyzing interorganizational relations. Next, a legislative scenario was created for the purpose of speculating about possible interorganizational dynamics during implementation of a state government mandated statute designed to promote equality of educational opportunity.

As a result of this exploration of potential "networking organizations," it was concluded that civil rights advocacy organizations, research and development organizations, state education agencies, teacher organizations, citizen advocacy organizations and intermediate education agencies should be considered for inclusion in ar interorganizational network.

Footnotes

1. For a summary of the NIE mission, see National Institute of Education "Announcement: Grants for Research on Law and Government in Education" (Fiscal year 1979).

2. Ibid., p. 1.

3. Andre' Beteille (editor) Social Inequality (Baltimore: Penguin Books, 1969) pp. 8-10.

4. United States Senate Select Committee on Equal Educational Opportunity, Part 1A - Equality of Educational Opportunity: An Introduction, 91st Congress, 2nd Session.

5. Ibid., p. 71.

6. Ibid., pp. 72-76.

7. For an introduction to this psychological construct see William Ryan, Blaming the Victim (New York: Vintage Press, 1971) pp. 30-60.

8. For an excellent discussion of this new psychological thrust, see Asa Hilliard, "Equal Educational Opportunity and Quality Education" in Anthropology and Education Quarterly, Volume IX, Number 2, Summer 1978, pp. 110-123.

9. Ryan, op cit. p. 3.

10. Ryan, op cit. pp. 4-10.

11. Ryan, op cit. pp. 4-10

12. United State Senate Select Committee on Equal Educational Opportunity, op cit.

13. Ibid.

14. Ibid.

15. Ibid.

16. Peter M. Blau and W. Richard Scott, Formal Organizations: A Comparative Approach (San Francisco: Chandler, 1962).

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18. Richard M. Cyert and James G. March, A Behaviorial Theory of the Firm (Englewood Cliffs: Prentice Hall, 1963).

19. Graham Allison, Essence of Decision (Boston: Little, Brown, 1971).

20. David Rogers, 110 Livingston Street (New York: Random House, 1968).

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24. Ulysees V. Spiva, "An Exploratory Analysis of the California State Board of Education and Its Policies Towards Racial Isolation in the Schools" (unpublished Ph.D. dissertation, School of Education, Stanford University, 1971).

25. John F. Heflin, "Implementation of School Desegregation Policy: An Analysis of the California State Department of Education Experience" (unpublished Ph.D. dissertation, School of Education, Stanford University, 1977).

26. Michael Cohen and James March, Leadership and Ambiguity: The American College President (New York: McGraw Hill, 1974).

27. William Evan, "The Organizational Set: Towards a Theory of Interorganizational Relations" in Merlin B. Brinkerhoff and Phillip R. Kunz, Complex Organizations and Their Environments (Dubuque: William C. Brown, 1972) pp. 326-340.

28. Ibid.

29. Ibid.

30. This framework is adopted from Bailey and Mosher, op cit., p. 222.

31. Matthew Miles, "Networking." Paper prepared for National Institute of Education, January 29, 1978.

32. These insights are based upon the author's experience as a specialist and administrator within a state government education agency and his research interests in equality of educational opportunity and intergovernmental relations. For additional insights see John F. Heflin, "Preliminary Thoughts About Oregon Department of Education Activities with Implications for the Education of Black Youth," Cal-Max Symposium on the Status of Blacks in Oregon, 1975; "Increasing Minority Participation in Educational Research and Development in State Education Agencies: Needs, Issues and Options," prepared for NIE-Sponsored Workshop on Educational Research and Minority Concerns, American Educational Research Association, New York, NY, 1977; and "State Education Agencies and the Delivery of Quality Educational Services to Black Students" in Emergent Leadership, Volume III, No. 1, Winter, 1978.

An R&D Prospectus for Educational Reform

Dr. Michael Fullan, Ontario Institute for Studies in Education

Research shows that we can have some confidence in identifying and assessing the conditions which seem to be related to knowledge utilization (KU). But we cannot prove with any confidence that KU is related to school improvement.

Key Points: There are **two** main **types** of **knowledge utilization.** One refers to concrete knowledge utilization applied to a particular problem and deriving from a **specific project.** We may call this "**specific KU.**" The second, apparently the most frequent, refers to diffuse or **cumulative knowledge** which serves to enlighten individuals. Users become more aware and knowledgeable about a problem area, but do not necessarily utilize information on a one to one basis. In fact, they may **not** use **information in** any **direct, observable behavioral** way. It can be called "**enlightened KU.**"

It is clear that **effective KU** is much **more than knowing something new.** But it is likely that R&D knowledge **does not lead to** a definable, **specific action.**

Some **forms** of use are specific and tied to one **particular project;** other use is drawn from **an array of programs,** and still other use is **diffuse. All** types represent **legitimate** domains of enquiry into the potential impact of R&D.

We should not assume any one, narrow definition of KU. In many instances, it **may be impossible to assess R&D use,** let alone its relationship to improvement. At the very least, it is essential to recognize different types of use to explore factors which may be related to use.

A number of factors go **against knowledge utilization.** In particular, **existing conditions in schools** frequently inhibit KU – adopting change for symbolic or political reasons, lack of administrative support, differential access to information, infrequent interaction among school members, and between school members and external agencies.

When KU does **occur** it is a **result of access to information;** decisions based on **identified needs** or problems; **administrative support;** relevant, usable, understandable **information** at the orientation or adoption phase; and **frequent interaction** among peers, between peers and externals during implementation.

It can be inferred that at least **three major sets of factors must occur together:** (1) the **information** must be of a certain **quality,** (2) the **approach** must be **person intensive, interactive** and **continuous** and (3) the **setting** must possess or come to possess characteristics of **administrative support, peer interaction and problem solving orientation.**

KU **fails** to occur because it is **infrequent** for the quality of **information,** the **approach** and the **setting** to **come together** in mutually reinforcing ways.

There are also different **types of users.** There is a major distinction between **decision makers** who are potential adopters on behalf of others and **users** who decide only for themselves.

Recommendations: More producers of R&D should do their work in partnership with practitioners. Joint involvement in defining problems, development and determing applicability and usability of projects is needed.

R&D linkers should develop a plan which screens information/programs as to the relevance, demonstrability and usability of information, uses a person intensive approach based on a deliberate plan to obtain administrative support and to provide resources and means for bringing users together on a continuous basis, and selects and influences settings so that administrative support and user interaction is established.

Should specific use be stressed or should broad enlightenment be the goal, The two may not always be incompatible. Some claim that R&D cannot and should not attempt to be definitive. Rather, it should stimulate, enlighten and probe the complexities and contradictions inherent in educational problems. The goal would be to explore, brainstorm and expose users to a variety of information, rather than attempting to get one specific program used. It is recommended the three aspects of information, approach and setting be used to stimulate interaction around a variety of information. The catalytic effect of KU would be the main purpose of this approach.

AN R&D PROSPECTUS FOR EDUCATIONAL REFORM

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The question of an R&D prospectus for educational reform presents numerous dilemmas. In this paper I will attempt to outline the main issues in three sections. Section One addresses the question of "what is R&D utilization and how does it relate to school improvement?" In Section Two I discuss the assumptions and factors which cause or are related to R&D use. In Section Three I discuss the implications for an R&D prospectus, and the question of how to assess the impact of R&D.

Section I: What is R&D Utilization for Educational Reform?

Before examining the relationship between R&D and educational reform, the prior question is "what is R&D utilization?" The latter is enormously difficult to define, let alone plan for. It will not be possible to do justice to all aspects of utilization, but it is useful to outline the main issues. Let us recognize at the outset that we are interested in knowledge which comes from R&D and that which comes from experience based practice. The main problems arise, however, when we move to the definition of utilization. There seem to be two main types of knowledge utilization (KU) which have emerged in recent literature. One type refers to concrete KU applied to a particular problem and deriving from a specific project or set of research projects. We may call this specific KU. Another type, apparently the more frequent, refers to diffuse or cumulative knowledge which serves to enlighten individuals. Users become more aware and knowledgeable about a problem area, but do not necessarily utilize information on a one to one basis. In fact, they may not use information in any direct, observable behavioral way. We can refer to this type as

enlightened KU. Some discussion of each of these types will demonstrate their nature and validity and set the stage for Section Two.

Specific KU

There has been a good deal of research over the last five years which analyzed in some depth the problem of specific utilization in the form of specific educational innovations or programs. We are now in a position to summarize this knowledge from the so-called "adoption and implementation literature" (see Berman and McLaughlin, 1975, Fullan and Pomfret, 1977, and Fullan 1980).

The meaning of adoption is simply that a decision maker or potential user of a new idea or program decides to take it on.* Thus, deciding to take on a new program for oneself or on behalf of others is an important form of knowledge utilization. While this is using knowledge and is of direct interest to us in its own right, strictly speaking it is not necessarily related to actual use in a behavioral sense. Research on implementation has not only identified actual use as an open question, but also suggested that even direct use is not unidimensional. If we ask the question of what we mean by effective use or implementation, it becomes readily apparent that several things have to happen. For example, using a sociological model, Fullan (1979) suggested that there were at least five general dimensions of implementation, namely, changes in structure or organization, in materials, in role/behavior, in knowledge and understanding, and in attitudes/values. The case was made that implementation should be

*I do not discuss the 'causes' of factors in this section, but instead concentrate on laying out the dimensions; causal factors and implications are taken up in Section Two.

assessed in terms of whether all five aspects were "put into practice" or were evident in situations of purported use. The observation was also made that undue emphasis had been placed on materials production and delivery of materials to the neglect of what people were actually supposed to do with the materials in role/behavioral terms.

Leithwood (1978) also developed the idea of dimensions of use or implementation in more curricular related terms, in effect, spelling out the dimensions of implementation in more differentiated, curriculum specific ways. In reviewing curriculum theory, research and practice, Leithwood (1978) identified eight distinct dimensions:

1. Platform images or global conceptions (beliefs and assumptions underlying the curriculum)
2. Objectives
3. Student entry behaviors
4. Content
5. Instructional material
6. Teaching strategies
7. Learning experiences of students
8. Assessment tools and procedures

The main point is that even such a seemingly narrow concern of actual practice leads us to realize that use means several different things which can vary independently. In other words, knowledge utilization vis-a-vis a new program means potential changes in one's conceptions of a particular practice (i.e., new knowledge about the beliefs and assumptions underlying the new practice), one's knowledge of new materials, one's teaching behavior in terms of both direct teaching methods, and supporting diagnosis and planning behaviors. It is clear that effective KU is much more than knowing something new. Indeed, we could add to the complexity by drawing on Hall

and Loucks'(1977) research on levels of use which demonstrates that use can vary from awareness to mechanical use to more sophisticated use. Thus, KU can vary both by dimension and by level of use on each dimension.

So far we have been talking about specific projects or programs leading to endorsement or use. Of course, much R&D does not come in the form of adopting a single program, but rather as a series of information about a problem area (e.g., teaching of reading). In other words, there is a variety of information on a given topic. This information may result in specific use or more frequently in knowledge which may be used in a number of diffuse or hard to measure ways. Regarding the former, potential users may view a literature search on a given topic, and decide to take specific action, as in the Sieber and Louis (1972) and Emrick (1977) evaluations which I review in Section Two. More likely is that R&D knowledge does not lead to a definable, specific action. Weiss (1980) stresses that decision makers use social science research conceptually:

> To understand the background and context of program operation, stimulate review of policy, focus attention on neglected issues, provide new understanding of the causes of social problems, clarify their own thinking, reorder priorities, make sense of what they have been doing, offer ideas for future directions, reduce uncertainties, create new uncertainties and provoke rethinking of taken-for-granted assumptions, justify actions, support positions, persuade others, and provide a sense of how the world works (Weiss, 1980:6).

In short, R&D may be used to enlighten complex issues even by showing complexity and conflicting research findings (see especially, Lindblom and Cohen, 1979 and Light, 1979). In this case, R&D's role is to stimulate thinking and to have a long run cumulative impact on thinking and decisions.

Perhaps the best way to summarize the different meanings of KU is to examine the two dimensions of source and use, as in the following table.

Table 1. Meanings of KU in R&D

	Source of R&D	
	Specific Project	Research in a Problem Area
Specific Use	I	II
Diffuse Uses	III	IV

Type I represents the traditional view of what research should be doing. A specific project or program is used by a given user to solve a particular problem. We have seen that Type I has two subaspects. One version of specific use is an adoption decision around a given project; an additional aspect concerns the implementation behavior and thinking which may or may not follow. Type II occurs when a body of R&D (not one specific project) is examined and leads to specific action on the part of a user. For example, the user may decide to try a given program as a result of being exposed to many alternatives. Type III can occur when a specific project leads not to uniform use, but to a variety of thinking and diffuse action. Shipman (1974) analyzed this phenomenon when studying an Integrated Social Studies Project. He concluded that the project's "catalytic effect" on a variety of users may have been its most important effect. Similarly, Farrar et al. (1979) suggests that an evolutionary perspective may be the most fruitful one for understanding the variety of effects of an Experience Based Career Education program and other similar programs. Under Type III, projects are seen to have a multitude of uses and consequences on people's thinking and action. Type IV is similar to Type III in that the consequences are diffuse and variegated, but the source is the body of R&D on a problem area, rather than one specific project (as in Type III).

In summary, all four types represent legitimate domains of inquiry into the potential impact of R&D. It is especially difficult and may be impossible to measure or determine the impact of R&D in Types III and IV, while these types may be the most frequent. It should also be evident that the relationship of each type to school improvement is problematic to say the least. There is even great difficulty with relating Type I to improvement, because so many variables affect educational outcomes. Research on the other three types suffer the same problem, as well as many additional ones. Type II has a variety of different uses which would have to be traced in any study of multiple users. Because multiple users would choose different specific ideas from the same general body of R&D, one would be faced with the problem of relating many different uses to improvement, a difficult design and logistical task. Types III and IV present far greater problems, because there are no specific uses to examine.

All of this is to say that (1) we should not assume any one, narrow definition of KU, (2) in many instances, it may be impossible to assess R&D use, let alone its relationship to improvement and (3) at the very least, it is essential to recognize different types of use in order to explore factors which may be related to use. Stated another way, factors and processes may be different in each of the four types. It is necessary to approach the problem of R&D utilization by first realizing that we are considering a multifacted phenomenon. In Section II, I take these ideas one step further, by examining what we know about the causes of KU.

Section II: Assumptions and Factors Related to R&D Use

Instead of examining causes of each of the four types in separate detail, I would like to identify several main causes which seem to be basic to KU. At the same time we can keep in mind that some of the specifics will

vary depending on whether we are talking about using one specific program or drawing knowledge from a research area in which numerous programs exist.

To locate some common themes, let us scrutinize some lists of basic causes of implementation on KU which have been formulated by reviewers of recent research on this topic.* Implications of the reviews will then be identified.

Review of Reviews on Implementation and Use

Howes and Quinn (1978) reviewed the applied organizational change literature and suggested "twelve strategic, manipulable, managerial change levers" (p. 71). They divided the task into two phases--orientation (or preparation) and implementation (or use). This list is reproduced below.

A. Phase 1: Set Up an Adequate Orientation Environment
   1. Set aside enough time for an adequate introduction to the change
      a. Identify what will be changed
      b. Plan workshops, meetings and inservice seminars
   2. Make the relative advantages of the change easily visible
      a. Package it so that it is easily understood, easily referenced and easily related to performance
   3. Show organization members (users) that their efforts will be supported
      a. Identify, obtain and confirm availability of support services and resources
   4. Show members it will be easy to institutionalize the change and that it will be relatively nonthreatening afterward
      a. Clarify the expectations of each member during and after implementation
   5. Show that immediate superiors accept and support the change
   6. Clearly identify the roles and relationships of all who will be involved in the change process

B. Phase 2: Set Up Adequate Support Networks for the Implementation Effort
   1. Produce and make supportive services available
   2. Set up formal training programs to develop members' roles
      a. Provide inservice training, continuing workshops, seminars, etc.
   3. Encourage and reward the use of horizontal and vertical communication channels

*That is, I will do a brief review of reviews.

4. Relax standard operating procedures in affected (changing) units
5. Integrate change agents, managers and members
   a. Provide frequent and individual contact
6. Make sure members feel adequately involved
   a. Establish problem solving meetings and shared decision making norms

Emrick and Peterson (1978) carried out a cross comparison of five major change projects--The Pilot State Dissemination Project (Sieber and Louis, 1972), Federal Programs Supporting Educational Change (Berman and McLaughlin, 1975), Project Information Packages (Horst et al., 1975), The TAG Study (six projects directed at facilitating change at the School/Community Level).

Emrick and Peterson (1978) formulated five major guidelines:

1. Meaningful change occurs as a process, not as an event.

2. Directed personal intervention is by far the most potent technical support resource, and may be a necessary condition for many forms of utilization.

3. Continuous personal participation of the implementing staff is needed to firmly root and sustain the utilization.

4. Administrators occupy a crucial role in supporting the utilization process.

5. Material resources at the "how to" level are needed, particularly for utilizations involving organizational or constructural change.

Fullan (1980a, 1980b) reviewing a larger body of literature separated factors related to adoption and those related to implementation. The following tables list these two sets of factors.

Factors Associated with Adoption:

1. Existence of Innovations

2. Access to information

3. Advocacy from Central Administrators

4. Teacher Pressure/Support

5. Consultants and Change Agents

6. Community Pressure/Support/Apathy/Opposition

7. Availability of Federal or Other Funds

8. New Central Legislation or Policy (Federal/Provincial)

9. Problem Solving Incentives for Adoption

10. Bureaucratic Incentives for Adoption

Factors Associated with Implementation:

A. Characteristics of the Change Effort

1. The Adoption Decision

2. Clarity

3. Complexity

4. Implementation Strategies (resource support, training)

5. External/Internal Relationships

B. Characteristics of the Institutional Setting

1. History of Innovative Attempts

2. Role of Central Administrators

3. Role of Principal

4. Organizational Characteristics

5. Community Characteristics

The research of Hall and colleagues (Hall, 1978, Loucks and Hall, 1978) working with a large number of different innovations provides another useful description of what change is and how it occurs. They list their main assumptions/findings as follows:

A. Change/innovation adoption:

1. Process, not an event

2. Made by individuals first, then institutions

3. Highly personal experience

4. Entails developmental growth in feelings and skills

B. Interventions must be related to:

1. The people first

2. The innovation second

They have specified these assumptions using two main dimensions--levels of use and stages of concern. Essentially, Hall et al. claim that use can occur at a number of different levels, and that users have different concerns which vary among individuals at any given time, and within the same individual over time. These dimensions and their time and space variability reinforce the idea that use is a process occurring over a time period.

Weiss' (1980) research is of direct importance because she examined individual perceptions of 155 decision makers in mental health fields. There are some limitations to the research in that: (1) it is based on self reports, (2) it is confined to decision makers not users and (3) it is in the field of mental health not education. The findings, however, are stimulative in thinking about education. Weiss found five factors related to perceived use in relation to 50 research report abstracts which were read by all 155 respondents. The five factors were:

1. Perceived relevance

2. Perceived research quality

3. Conformity to user's prior expectations

4. Action feasibility or direction

5. Challenge to the status quo

Weiss' claims that users apply a "truth test" (research quality/validity and/or conformity with previous knowledge and expectations), and a "utility test" (has action implications and/or challenges current policy).* Weiss

*The remaining factor (relevance) was based on a single item, and was not used by Weiss on the truth and utility tests.

contends that decision makers will use research which has positive values on the five dimensions, and that use "is a much broader and more diffuse concept" than the "research-for-problem solving literature" adopts. Weiss studied "upper level" decision makers. For middle level management (e.g., school district and school administrators), Miles et al. (1978) discovered an interesting by product in their study of new schools. As an "incentive" to participate in the research the project offered matching funds to the participating schools to be used for consultant help. Miles et al. discovered that not only did schools not take advantage of it, but they refused even when specific offers were suggested. It seemed that school people were content with their own resources and that to involve outsiders required time, energy and risks which they could do without.

The research reviewed up to this point is directed at dissemination, implementation, etc. A final piece worth noting is a recent paper titled "The Chastening of Educational Research" (McLean, 1979). Simply put, McLean examines specific research enterprises and concludes that research is most useful when it is based on intensive interaction between the researcher and the teachers in the form of researchers and teachers as partners.

Themes in the Reviews

There are two main implications which I would like to consider: (1) What are the main common themes? and (2) What are some differences between the types of use and types of users?

Themes. There are several common themes which should give us some confidence that we know the conditions under which KU might occur (although we will also realize how difficult it is to establish these conditions).

First, a number of factors go against knowledge utilization. In particular, existing conditions in school districts and schools frequently

inhibit KU--adopting change for symbolic or political (but not problem solving) reasons, not adopting change at all, lack of administrative support, differential access to information, infrequent interaction among school members, and between school members and external agencies, etc.

Second, when KU does occur it is a result of access to information; decisions based on identified needs or problems; administrative support; relevant, usable, understandable information at the orientation or adoption phase; and frequent interaction among peers, between peers and externals during implementation. In short, people use R&D knowledge when it is pertinent, when they are oriented to solving problems, and when the conditions and strategies employed facilitate (indeed, insist on) regular ongoing interaction, first at the orientation phase and especially during implementation efforts.

It can be inferred that at least three major sets of factors must occur together: (1) the information must be of a certain quality (e.g., relevance, applicability and understandability), (2) the approach must be person intensive, interactive and continuous and (3) the setting (district, organization) must possess or come to possess characteristics of administrative support, peer interaction and problem solving orientation. R&D utilization usually fails to occur because one or more of the three sets of factors is missing. All three must occur for change to happen. The existence of any one or two will not make much of a difference, if the other one(s) is missing. As McLean (1979:26) states:

> Schools are overdetermined; that is, they are shaped by many forces, more even than are necessary to make them the way they are. Take away or change one force and nothing in a school may change (emphasis in original).

In sum, KU fails to occur because it is infrequent for the quality of information, the approach and the setting to come together in mutually reinforcing ways.

Types of Use and Users. I have just discussed common themes. Differences become important when we examine more closely variations in types of use and types of users. In Section I, I proposed four types of use. Some forms of use are specific and tied to one particular project, other use is specific but is drawn from an array of programs, and still other use is diffuse (i.e., KU for enlightenment). The implications of these variations would have to be worked out according to the type which is of interest. For example, KU of one specific project would be more focused around a group of users, using a relatively narrow set of information (not to say simple set). Hall's (1978) work provides a good illustration of this type. Whereas KU of a more diffuse or multiple options nature would focus on how to work with a variety of users each of whom (or many of whom) would be interested in different projects. Sieber and Louis' (1972) Pilot State Dissemination Project and Emrick's (1977) NDN evaluation provide good examples of this type.

In addition to different uses, there is also the variable of different types of users. The one major distinction I would suggest is between decision makers who are potential adopters of information on behalf of others and users who decide on KU only for themselves. Thus there is a major difference between planning for KU with decision makers who will decide on a program for a whole district, a school or some subgroup and planning for KU directly with all users (e.g., directly with teachers). In the former, the emphasis would be on getting a favorable initial decision, but also, on attempting to influence followup implementation support

resources. In the latter, an attempt would be made to interest individual users, and then provide followup. In either case, person intensive followup would be needed.

Section III: R&D Prospectus and the Question of Assessment of Impact

The assumptions, themes and different uses and users already imply the role of R&D. The details of any given specific role of R&D producer, linker, etc. would have to be specified according to the particular problem, project and setting. Stated another way, there is no one universal role for R&D which can be stated. It depends on which type of information (e.g., project vs. research area), which R&D personnel and users, and which setting or settings are the focii. To reiterate the major implications for an R&D prospectus:

(1) More producers of R&D should do their work in partnership with practitioners. Joint involvement in defining problems, development and determining applicability and usability of projects is needed.

However, most concerns with R&D use are directed at R&D that has already occurred and was developed by others. There are at least two different types. One refers to those cases where the R&D linker or disseminator is dealing with one particular project; the other when the linker is dealing with entire research areas from which more than one potential idea or program would be used by different users. In either case the R&D linkers should develop a plan which:

(2) Screens information/programs as to the relevance, demonstrability and usability of information, uses a person intensive approach based on a deliberate plan to obtain administrative support and to provide resources and means for bringing users together on a continuous basis, and selects and/or influences settings so that administrative support and user interaction is established.

More specific recommendations are contained in the twelve strategies listed previously from Howes and Quinn (1978). Stallings (1979) provides further evidence about what is needed for serious change in teacher behavior:

> The total immersion of the sponsor in the field site over a period of years was related to successfully changing teachers' behavior in specified ways. The implication for inservice training is that one-shot workshops are not as likely to bring about behavioral changes as longer term interventions. If school districts truly want to change the teaching patterns, then a theory, practice and delivery system must be carefully developed and monitored (Stallings, 1979:174).

(3) A third recommendation which runs somewhat counter to (2) raises the question of whether specific use should be stressed or whether broad enlightenment should be the goal. The two may not always be incompatible, but some researchers (Lindblom and Cohen, 1979, and Weiss, 1980) claim that R&D cannot and should not attempt to be definitive. Rather, it should stimulate, enlighten and probe the complexities and contradictions inherent in educational problems. This approach would still use the same general principles, but the goal would be to explore, brainstorm and expose users to a variety of information, rather than attempting to get one specific program used. Without confronting the zero-sum possibilities of this position, a third recommendation would be to use the three aspects of information, approach and setting to stimulate interaction around a variety of information. The catalytic effect of KU would be the main purpose of this approach.

Finally, we must raise the question of how to assess whether KU makes a difference in school improvement. There are two parts of the problem. First, the measurement of use and, second, the relationship between use and improvement. Many researchers argue that we should be content to bring about "use" of good ideas without necessarily getting into the tangle of how it relates to improvement (see Charters and Jones, 1973). There are ways of assessing use, some of them quite sophisticated. For example, if one is dealing with a specific project, it is possible to develop measures of levels of use as Hall et al. (1978) have done in assessing use among large groups of users. If the concern is with a general body of research and multiple uses, it is again possible to assess frequency of use and quality

of use via interviews and questionnaires (see Sieber and Louis, 1972). They found that teachers in districts with field agents recorded many more instances of drawing on external information. The extent and quality of use of information could also be assessed as in the NTS (1978) and Network (1979) studies of dissemination utilization.

Even if we confine assessment to use, we run into major problems when consider the enlightenment arena. These uses are so multiple, diffuse and conceptual/cognitive it is literally impossible "to prove" use. The best that can be done is to interview or question users as to their satisfaction, reports of influence and so on. Knowledge of particular studies, programs, findings, etc. may be the best surrogate that something has happened. It would be possible to compare people exposed to different approaches as to their knowledge of topics, findings, etc., even though actual use is not directly measured. It should be noted that this is not simply a methodological problem of how to measure actual use, but more a conceptual issue that knowledge may be taken on cognitively or conceptually without being able to trace it to direct application. Clearly, the indirect ways of assessing this would not be satisfactory to a hard nosed evaluator, but the problem may be reflective of the real situation in which R&D knowledge has a broad, indirect effect through osmosis. The task of measurement would be to identify those R&D efforts which do have such an influence, from those that do not. Amount of knowledge, reports of influence and indirect, unobtrusive measures may be the only way to assess those aspects of KU.

When we move to the question of improvement, we encounter even more difficulties. If we are assessing a specific project, it is possible to relate quality or extent of use to some outcome measure (e.g., achievement). It is impossible to relate the more general or multiple use

phenomena to school improvement in any student achievement sense. Perhaps the best approach is to define improvement as changes in the capacity of the organization and user (e.g., greater knowledge, more involved process, greater seeking of information, etc.), as well as changes in the client (e.g., student achievement). In this way changes in capacity (greater knowledge, more effective process, etc.) could be assessed in the more diffuse efforts, as well as in specific programs (which could also assess impact on achievement).

One of the basic ways of determining the success of R&D efforts is to assess whether the themes of R&D utilization are installed. Thus, a given R&D utilization project could be assessed in terms of whether it produced the information, approval and setting characteristics which were conducive to KU (see also Howes and Quinn, 12 point checklist reported earlier).

In conclusion, research does show that we can have some confidence in identifying and assessing the conditions which seem to be related to KU. But, as with so many educational issues, we cannot prove with any confidence that KU is related to school improvement. Many would be satisfied with establishing the former (conditions for KU) while proving the latter (the relationship of KU to improvement) may be an impossible demand for the vast majority of the R&D field.

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Back to Basics in Educational Dissemination

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The chain of local, state and federal government agencies (LEAs, SEAs and FEAs) connected by authority relationships use authority as the cheapest, fastest, most reliable means of disseminating significant changes in professional practice. All other organizations engaged in dissemination have no authority over public schools, and are left to disseminating relatively insignificant innovations.

Key Points: Public schools are government agencies; to change a school is to change a government agency. To change local schools, it may be necessary to change state government. State government agencies are governed, in part, by federal government agencies (60 percent of all state agency employees are paid by federal funds and spend their time monitoring federally-supported programs in the local schools).

What is **most likely to influence student learning is** "the **opportunity to learn**" **rather than** the "technique **of teaching.**" **Changes** in the nature of the "opportunity to learn" **result from mandates** from higher authority (government); **changes in** the nature of "**teaching** techniques" are disseminated through weaker, less effective means and are **optional.**

State agencies – legislatures, courts, state boards of education and state education departments – use their authority (by law, court order or regulation) to **mandate** professional **practice in** local **school** districts. They determine preparation programs for teachers, teacher qualifications, subjects to be taught, minimum competencies for promotion or graduation, etc. On the other hand, they say little or nothing about how teachers will teach. Changes in methods of teaching are left to other, less effective means of dissemination.

Federal agencies – courts, Congress and administrative agencies – similarly **mandate changes** in professional practice for one particular population of students – minorities. The federal government has begun to do **for minority students** what state agencies do for majority students.

There is a clear and distinct difference between the **changes** in professional **practice disseminated by federal mandate** and the changes in professional practice disseminated by such activities as ERIC and the National Diffusion Network. The first are central enough to be mandatory; the second are marginal enough to be optional.

Local, state and federal governments treat school personnel like **bureaucrats** when **disseminating important changes** in professional practice and treat them like **professionals** when disseminating **unimportant changes** in professional practice.

Technical assistance is always **most effective in** the **wake of mandates.** Mandates make the market for technical assistance. The classic one-two punch of a champion disseminator is a stinging mandate followed by a powerful technical assist.

Recommendations: The reasoning of this paper would lead to the following logical conclusion.

The federal government should stay out of dissemination unless it has an innovation important enough to mandate.

Those important innovations ought to be mandated through the usual legislative or judicial or administrative mechanisms. They ought to be supplemented by demonstrations, training and technical assistance.

Beyond that, the federal government ought to dedicate its school improvement labors to research and development. And leave the fruits of its labors to the non-government organizations – publishers, professional associations, intermediate school districts, and others who traffic in the optional.

BACK TO BASICS IN EDUCATIONAL DISSEMINATION

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Dissemination is the deliberate spreading of forms of professional practice. That definition is not limited to spreading information about those new forms of practice; it encompasses every act needed to spread the practices. And the definition is not limited to new forms of instructional practice; it encompasses every aspect of professional practice: administration, community relations, transportation, construction, maintenance, finances, school personnel issues, student issues and the curriculum, as well as instruction.

This paper is limited to a discussion of the spreading of new forms of professional practice in public elementary and secondary schools, given the fact that there are significant differences between them and private schools, proprietary schools, colleges and universities and the many institutions such as libraries and museums which provide adult education.

Back to Basics

So much of the literature dealing with dissemination in the past decade, it seems to me, has become jargon ridden and involuted, dealing with phenomena that are marginal if not esoteric, that I want to go back to the fundamentals of changing professional practice in public elementary and secondary schools and look at the whole matter. I have tried to brush the cobwebs of the dissemination literature from my mind and forget the vocabulary of the field. I have tried to approach the topic as a civilian rather than as a dissemination specialist. On rereading the paper, I find myself surprised by what it says. So may the reader.

Changing the Government

Public schools are government agencies. To change a school is to change a government agency.

Moreover, local public schools are local government agencies governed by state government agencies. To change the local government, it may be necessary to change the state government. Conversely, changing the state government may change the local government.

State government agencies are governed, in part, by federal government agencies. (One can protest that the federal education government does not govern the state education government; but one can meet that protest by pointing out that 60 percent of all state education department employees are paid by federal funds and spend their time monitoring federally supported programs in the local schools.) To change the state government, it may be necessary to change the federal government. Conversely, changing the federal government may change the state government.

Changing What Matters

What is most likely to influence student learning is the opportunity to learn rather than the technique of teaching. Simply put, what is taught is more important than how it is taught. Whether American history is taught has far more to do with whether students learn American history than how it is taught. No variation in teaching technique can make up for the absence of American history from the curriculum or improve student learning appreciably if it is present in the curriculum.

Of course, children have different personal characteristics (especially intelligence) which have a primary effect on how much they learn. This is what leads school people to say that if the children are bright, they will learn no matter how they are taught.

Similarily, teachers have different personal characteristics (especially intelligence, charisma, affection for children) which have a primary effect on how well they teach. This is what leads school people to say that good teachers are good teachers, regardless of the teaching methods they use in their classes.

And these critical differences in children and differences in teachers are what lead researchers to discover little if any significant difference between various teaching methods. Thus, the opportunity to learn is what matters.

Since that is what matters, changes in the nature of the opportunity to learn are disseminated by mandate from a higher authority and are required, while changes in the nature of teaching techniques are disseminated through weaker, less effective means and are optional. Those higher authorities can be located in the executive, legislative or judicial branches of government at the federal, state or local level, and their mandates are the cheapest, fastest, most reliable way to change government agencies (like local school districts) or the behavior of government employees (like local teachers).

Moreover, mandated changes in the nature of the opportunity touch all teachers in all affected grades and/or subjects at the same time because those changes are deemed important; that is, the system is changed. In contrast, optional changes in teaching methods are frequently offered to individual teachers who volunteer to learn them, because it makes relatively less difference if those techniques are changed. That is why institutional mandates deal with the what rather than the how of teaching.

Local Changes That Matter. Boards of education, school district administrators and school building principals use whatever discretion is left to them by state and federal governments to structure and to modify

learning opportunities, but not teaching techniques. That is, they determine which teachers to hire, which courses to teach, which books and equipment to purchase, how long students will study each subject, which grades to house in which buildings, which extracurricular activities to provide, which students to assign to which teachers, how much to spend per pupil and so on.

On the other hand, they do not determine whether teachers will lecture or discuss, whether instruction will be deductive or inductive, whether concepts and skills will be taught through films as well as through books, what psychological climate will be in the classrooms, how teachers will grade students and so on. Changes in teaching methods are left to other, less effective methods of dissemination and as options to be exercised by individual teachers.

State Changes That Matter. State legislatures, state courts, state boards of education and state education departments use the very considerable authority left to them by the federal government to mandate--by law, court order or regulation--professional practice in local school districts. They determine preparation programs for teachers, qualifications of teachers, subjects to be taught, time allocations for subjects, uniform tests to be used, minimum competencies for promotion or graduation, the ages of school attendance, the minimum amount to be spent on each pupil and so on.

On the other hand, they say little or nothing about how teachers will teach. Changes in methods of teaching are left to other, less effective means of dissemination and to the discretion of individual teachers.

Federal Changes That Matter. The courts, the Congress and administrative agencies such as the Department of Education and the Department of Labor mandate changes in professional practice for one

particular population of students which has been singled out for special federal attention: the minority. The federal government has begun to do for minority students what state education departments do for majority students. The reason for this is that minority populations, failing to get what they feel they want from local and state governments, turn to the federal government to enforce their equal rights under the Consitution. Schools are particularly vulnerable to federal mandates because they are government agencies required by the Constitution to provide equal protection for all.

To guarantee minority students the opportunities they require for learning--sometimes very special opportunities--the federal government mandates the nature of those opportunities. The changes in professional practice necessary to supply those special opportunities include the desegregation of schools, the inclusion of vocational courses and bilingual instruction, the equitable treatment of the sexes, the development of individual educational plans for the handicapped and so on. The students selected for federal attention include those of minority races, those speaking minority languages, women (a psychological rather than statistical minority), the handicapped, the poor and those studying vocational subjects. The first minority to attract federal attention, and the one for which the federal government has become the de facto state education department and the de facto local board of education, is the Native American. Thus, the Native American enjoys the ultimate in federal mandates in schools operated by the Bureau of Indian Affairs.

There is a clear and distinct difference between the changes in professional practice disseminated by federal mandate--for example, black and white children going to school together--and the changes in professional

practice disseminated by ERIC and the National Diffusion Network--for example, career education as practiced in Akron, Ohio. The first are central enough to be mandatory; the second are marginal enough to be optional.

Mandates for Bureaucrats and Options for Professionals

It has often been noted that public school personnel, as professionals working in bureaucratic organizations, are somewhat like professionals and somewhat like bureaucrats. Local, state and federal governments treat school personnel like bureaucrats when disseminating important changes in professional practice and treat them like professionals when disseminating unimportant changes in professional practice. That is, school personnel are treated like bureaucratic functionaries when government agencies establish the length of the school year, length of the school day and length of the high school class period, for example. Individual teachers and administrators are given no discretion whatever about such matters. On the other hand, they are treated like independent professionals and are given considerable discretion, for example, in establishing a psychological climate in the schools and in choosing methods of teaching. The reason for this difference, to repeat, is that the length of instruction determines the opportunity to learn while the technique of instruction constitutes a minor change in that opportunity.

Role Differences Among Agencies and Organizations

The chain of local, state and federal government agencies (LEAs, SEAs and FEAs) connected by authority relationships use authority as the cheapest, fastest, most reliable means of disseminating significant changes in professional practice. That is, if the changes in professional practice

are significant, local, state and federal government agencies require them rather than leave them to the option of individual adminstrators and teachers.

All other organizations engaged in disseminating professional practice--the professional associations, the colleges and universities, the intermediate education agencies (created to replace the once authoritative county level in school government), the federally-financed, university-based research and development centers and regional educational laboratories, the voluntary clusters of schools such as accrediting associations and school study councils and the publishers--have no authority over public elementary and secondary schools. Because significant changes in professional practice are always disseminated by government mandate, the nongovernment organizations are left to traffic in the remaining innovations, which are relatively insignificant. That is, the power of the remaining innovations to produce changes in learning is marginal. Thus, they can reasonably be left to the option of local school districts, school buildings and individual school personnel. Thus, nongovernment organizations customarily deal with teachers and administrators as individual professionals rather than as sets of bureaucrats. This is the primary reason for the inability of such organizations to bring about major changes in professional practice, which can only be accomplished through the use of authority since professionals in government agencies exercise and respond to authority. It follows that the schools can and do effectively resist or simply ignore the bulk of the innovations purveyed by those nongovernment organizations.

The Champion Disseminators

The most powerful and effective federal disseminators are the mandators--not those officially designated as "disseminators." That is, the

Federal courts, the Congress and the bureaucrats who fill the pages of the Federal Register produce more changes in professional practice than the dissemination specialists. In the 1950s, the Court in Brown vs. Topeka made more changes than National Defense Education Act (NDEA), Physical Sciences Study Council (PSSC), School Mathematics Study Group (SMSG), Biological Sciences Curriculum Study (BSCS), Chemical Education Materials Study (CHEM), Chemical Bond Approach (CBA) dissemination activities combined--powerful though those were. In the 1960s, the mandates of ESEA Title I made more changes than the options of ESEA Title III. In the 1970s, the mandates of the Vocational Education Act (VEA) Amendments, the Lau decision, the Education for All Handicapped Act and the Youth Employment Demonstration Projects Act dominated the federal dissemination scene.

Technical Assistance Along with the Mandates

To take a different example, the mandated earmarking of VEA Part D funds for the dissemination of Experience Based Career Education (EBCE) did more to spread EBCE than all the dissemination activities combined, so far as I can judge. I will grant that the aggressive technical assistance activities of the four regional research and development laboratories helped.

Technical assistance is always most effective in the wake of mandates. So it is for the desegregation and bilingual technical assistance centers. Mandates make the market for technical assistance. Technical assistance for educational change is hard to sell in the absence of mandates. The classic one-two punch of a champion disseminator is a stinging mandate followed up by a powerful technical assist.

Return to the example of EBCE. Four career education models were created in 1971: Model I School-Based, Model II Employer-Based, Model III Home-Based and Movel IV Rural-Residential. Only one of them had the benefit

of a mandate (coupled with skillful technical assistance) during its dissemination: Model II EBCE from VEA Part D. And EBCE is the only model that spread and is alive and well today (as orginally conceived).

And by Logical Extension . . .

Extending this line of thinking leads directly to the conclusion that what the federal government should do about dissemination is to create a national pool of federally-approved innovations in teaching method, a national cadre of federally-paid dissemination specialists stationed in each state, a federally-paid cadre of innovation trainers stationed in the school districts where they developed their innovations and a network for the voluntary movement of those innovations into local schools without benefit of mandates.

Hardly. That is not the logical extension of the reasoning in this paper. Nor is the networking of federally-supported labs and centers to pool their innovations and promote the voluntary movement of those innovations into local schools without benefit of mandates.

No. I am afraid that the extension of the thinking in this paper leads to an entirely different logical conclusion. Something like this:

> The federal government should stay out of dissemination unless it has an innovation important enough to mandate. The innovation might come from anywhere. It might be:
>
> - An innovation created through a simple shift in social philosophy (for example, a new social decision that young adults will have to be in school or at work or in work-study programs or in the military to keep our society productive).
> - An innovation created by a lab or center or some other federal contractor (for example, a simple, cheap, reliable new way of tracing vocational education graduates).
> - An innovation created by a local school district (for example, an acceptable new way of writing parental obligations firmly into each IEP).

> Those important innovations ought to be mandated through the usual legislative or judicial or administrative mechanisms. And they ought to be supplemented by demonstrations, training and technical assistance.
>
> Beyond that, the federal government ought to dedicate its school improvement labors to research and development. And leave the fruits of its labors to the nongovernment organizations--publishers, professional associations, intermediate school districts and others who traffic in the optional.

I think that I now understand the federal government's current problem. Research doesn't change schools fast enough to suit Congress or the schools themselves. So the federal education agencies cannot just do research. Development doesn't change the schools because they won't adopt: they only invent or perhaps adapt. Besides, curriculum development might spawn another MACOS. And the publishers are largely opposed to federal curricula and materials anyway. So the FEAs cannot just do development. Training is no good because preservice training produces more teachers (there are too many already) and inservice training is weak and lacks political appeal. That leaves nothing for the FEAs to do except for dissemination and technical assistance, which are attractive because they get the federal research and development off the shelves and the local innovations on the road and offer immediate, politically popular help to local schools.

That logic leads to ERIC, PIPs, NDLP, NDN and RDX. But they float, disconnected from the federal/state/local authority line along which significant new programs move into local schools. And, according to the logic of this paper, they might not ever have been invented and would not be greatly missed.

Change Agentry and School Improvement: The Principal's Role

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Ultimately, an educational change can result in school improvement only if the human resources in the local school are adequate for bringing about change. The principal's role as a change agent is crucial in this process.

Key Points: **No change** of any education significance **can be implemented** in a school **without the understanding, involvement and support of the principal.**

As an agent of change, a principal carries out the **functions** of:

- Goal and policy setting
- Program development
- Organizational coordination
- Resource management
- Liaison with other groups
- Assessment of effectiveness and efficiency

The principal also must give **attention to** the **substantive content** of a proposed change.

The principal **must be skilled** in the processes of purposing, planning, organizing, training, implementing and evaluating.

Research studies on the **principal's role** have shown:

- Leadership behavior is a powerful factor in adoption and institutionalization.
- Quality of leadership is related to the perceived effectiveness of instruction and staff motivation and morale.
- Philosophy and organization of the school affect the decision making process – those affected by a decision should participate in making it.

Principals **face** various **barriers to change:**

- Societal and community **attitudes** constitute the first and foremost barrier.
- **Boards of education** become barriers only if it costs more money.
- The managerial level(**administrators and key staff**) constitute formidable barriers when their specialized "kingdoms" are threatened.
- Most **superintendents are** willing to **foster** a climate of **change** unless there are serious philosophical objections, economic considerations or community reactions.

Recommendations: Serious, sustained logitudinal studies should be conducted in innovative local schools concerning the interface between the principal's role as an internal agent of change and the consultant's role as an external agent of change.

University based administrative internships should be established to place prospective principals and consultants in innovative schools and consultative agencies.

A National Dissemination Consortium should be formed by schools and consultative agencies where dissemination research is conducted and/or Dissemination Fellows serve internships to:

Strengthen current dissemination efforts of agencies that interface with local schools.

Provide "administrator centers" comparable to Teacher Centers.

Enhance efforts of existing associations by such activities as conferences.

CHANGE AGENTRY AND SCHOOL IMPROVEMENT: THE PRINCIPAL'S ROLE

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Ultimately, an educational change, whether in purposes, programs, processes, procedures or products, can result in school improvement only if the human resources in the local school are adequate for bringing about the change. Recently, many major and minor educational change programs have been conceived, researched, tested, validated, developed, approved, abstracted, described, discussed and disseminated; yet we find that they have little or no impact on improved practice in local schools. Even if proposals for change do finally get to the principal's desk, they seldom seem to go beyond it. Why should this be so? How can this condition be changed?

Previously, it has been shown that no change of any educational significance can be implemented in a school without the understanding, involvement and support of the principal (Lipham, 1977; Jackson, 1978; Weldy, 1979). As the head of the ultimate client system to be served, the local school, the principal performs a key boundary-spanning role in bringing the human and material resources from the larger environment to bear on improving educational practice. The principal's linking role as an internal agent of educational change is of crucial importance.

The present paper goes beyond previous proposals by examining, first, the major expectations held for the principal's role as the primary internal change agent. Second, a general theoretical model of institutional roles is presented which stresses the need for mutual role expectations and perceptions as the principal interacts with significant others. Since our concern here is with dissemination, the essential interface between the

principal, as an internal change agent, and the consultant, as an external change agent, is used to illustrate the model. Then, some substantive research findings regarding the leadership and decision making behaviors demanded of the principal at different stages of the change process are documented. Next, some serious constraints regarding the principal's role are described as they occur at the institutional, managerial and technical levels of the school organization. The paper concludes by suggesting some substantial interventions that might be made, particularly at the federal level, to strengthen the future role of the principal as an important human resource in implementing essential change in local schools.

The Principal's Role as an Agent of Change

The primary role of the principal is to foster changes that will enhance teaching and learning in the local school. As the internal leader of change, the principal must fulfill certain essential functions if the implementation of a change program is to be successful. Consultants and other external change agents who would work effectively with principals should recognize and appreciate the breadth and depth of the role responsibilities demanded of the principal as an agent of change.

The Functions of the Principal

Recently, Campbell (1979) has summarized the distinctive administrative functions that apply to the principal as follows:

1. The administrator should discern and influence the development of goals and policies for the schools. The goals may be there in the culture of the community and of the school and if so, they should be discerned and perhaps made explicit. If the administrator becomes convinced that the goals and policies now extant are inadequate or incomplete, he or she then has the obligation to exert influence to see that they become more adequate or more complete. To be sure, the administrator cannot achieve this function alone; he or she must involve other people--board members, lay citizens--in this process. But it is the administrator's job to see that some direction is given to this development.

2. The administrator should stimulate and direct the development of programs to achieve the goals and purposes. Again, many others are involved and few administrators can dictate this process. The administrator can elicit the help of appropriate people, can give some direction to the steps needed in such development, can support those who carry the development forward, and can make it clear that this activity is basic to the operation of the organization.

3. The administrator should establish and coordinate an organization to implement the programs. Central to this function is the determination of staff requirements, the employment of competent persons to fill the positions, and the establishment of necessary relationships among staff members. As far as possible, assignments and expectations should be clear. Staff members should know what the formal organization of the system is and what the procedures are for questioning such arrangements. Again, this function requires a great deal of interaction among persons, a process the administrator attempts to keep healthy.

4. The administrator should procure and manage the resources needed to support the organization and its programs. Implicit in this function are the processes of budgeting--the projection of expenditures and revenues, and of accounting--keeping track of where monies have gone. But to budget properly there must be some vision of programs and of how money can be used to make them live. Also, to secure money from the larger environment--the district, the state, the national government and even from private sources--a case for the programs must be made and appropriately presented.

5. The administrator should represent the organization to groups in the local, and when appropriate, in the larger community and when necessary, mediate among these groups. This is perhaps the most forthright political function that the administrator is called upon to perform. There are many groups in the community and even in the school itself and they frequently have diverse perceptions of the organization and its performance. In representing the organization the administrator must cope with these diverse perceptions. Moreover, in many situations, the administrator must help organizations with diverse views of the school and its procedures reach enough consensus to permit the school to continue to operate. This will often thrust the administrator into the broker role, one demanding political skills of a high order.

6. Finally, the administrator should appraise the effectiveness and efficiency of these operations. I use the term effectiveness to mean the achievement of the goals and I use the term efficiency to mean at lowest possible cost. But feedback and appraisal are necessary as these functions are performed. How well were goals established? How well were programs developed? How effective has the organization been? In addition, the administrator should address the larger concern--have the programs made a difference in student outcomes? As with many other functions, the administrator will need staff help to perform the appraisal function adequately. Again, I emphasize the point that the administrator's task is to see that it is done.

The Tasks of the Principal

In implementing an educational change, the principal not only must fulfill the foregoing functions, but also must give attention to the substantive content of the proposed change. The content of most new educational programs can be classified into the following five domains: curriculum and instruction, staff personnel, student personnel, financial and physical resources and home-school-community relations (Lipham and Hoeh, 1974). Changing conditions in our society highlight specific tasks required of the principal in each of these domains.

Curriculum and Instruction. Widespread concern about declining test scores, the basic competency of students in reading, writing and mathematics, and the ability of students to function effectively as citizens in our society have focused attention on both the content of the curriculum and the teaching-learning processes utilized. Typical tasks of the principal in the domain of curriculum and instruction include assessing the community context for education, reaching agreement on goals, stating educational objectives, planning and organizing curricular and cocurricular programs, implementing instructional activities and evaluating educational outcomes.

Staff Personnel. Due to the increased unionization of teachers, the function of personnel today is assuming increased importance since negotiations have altered substantially the formal and informal power and influence relationships of the school. Continuing tasks of the principal in the area of personnel include the recruitment, selection, orientation, assignment, supervision, motivation, development, negotiation, arbitration, evaluation, transfer and termination of staff.

Student Personnel. Current concerns with "due process" and the rights of all students--particularly the handicapped--are powerful stimuli for educational change. Typical role tasks of the principal in the area of student personnel include student assessment, assignment, scheduling, attendance, advisement, guidance, health and discipline. In accomplishing these tasks, principals are assisted by counselors, psychologists, nurses, social workers and others. Even so, student personnel concerns demand considerable time and attention of principals, hence they must be skilled in working effectively with all students.

Financial and Physical Resources. In an age of accountability and an era of declining enrollments, the principal must give attention to the appropriate utilization of the human and material resources available to the school. Essential tasks in this area include planning, programming and budgeting; accounting for school monies (both curricular and co-curricular); maintaining inventories; supervising school construction, remodeling and maintenance; supervising school lunch, transportation and other auxiliary services. Principals sometimes spend more time on these matters than ideally they would desire.

Home-School-Community Relations. Today, parents and citizens are demanding a stronger voice in the administration and operation of their schools. These demands increase the importance of tasks in home-school-community relations which include assessing community values, needs and aspirations; analyzing the composition, relationships and demands of community subpublics; working with parents and parent organizations, community leaders and agencies; and communicating with and involving the community in determining the purposes, programs, progress and plans for the improvement of the school.

The Processes Utilized by the Principal

In fulfilling the foregoing functions and tasks, the principal must also be skilled in the following administrative processes: purposing, planning, organizing, training, implementing and evaluating (Lipham, 1979).

Purposing, or goal setting, involves identifying, clarifying and defining goals and objectives. Needs assessment, issue analysis and value clarification are typical relevant techniques for reaching agreement on proposed programs. Although it may seem superfluous to ask about educational purposes, misperceptions and misunderstandings about the objectives of an innovative program often contribute significantly to its failure. Administrators engaged in implementing improvements are well advised, therefore, to utilize appropriate goal clarification and goal setting techniques as a basis for program planning.

Planning includes such activities as specifying objectives, developing strategies and making immediate and long-range decisions. It involves investigating conditions and operations related to purposes and objectives, considering possible alternatives and recommending changes to be made. Thus, while planning may precede a major decision, it may also follow a decision and be concerned with its implementation.

Organizing includes the following: selecting specific rational processes to implement a plan, assigning primary role responsibilities and relating people and tasks. In effect, organizing includes activities designed to increase the degree of congruence between organizational and individual goals, roles and behaviors so that the outcomes of organizational effectiveness and individual efficiency may be enhanced.

Training, both preservice and inservice, must be provided for those engaged in an improvement effort. An adequate program of staff development

is absolutely essential if a major educational change is to be implemented effectively. Since the field of education involves an intensive, interpersonal technology, the quality of implementation of an innovation depends directly upon the knowledge, skills and attitudes of each member of the staff. Staff development also includes motivating the staff to implement a program of educational improvement.

Implementing requires not only that tasks be defined and responsibilities assigned, but also that the necessary facilities, equipment and materials be provided to accomplish each responsibility. Moreover, one must determine whether the program being implemented is making gains toward goals, since a program may be implemented exactly as planned but still not reach its intended objectives. Principals need information about progress during the course of implementation so that problems can be identifed and corrected quickly as they develop. Thus, information must be obtained regarding how a program is being implemented relative to short-range and long-range objectives.

Evaluating includes: reviewing plans and objectives; obtaining data regarding inputs, processes and outputs; interpreting the data obtained; drawing implications for future planning; reporting results. Evaluating, therefore, may be defined as the process of defining, obtaining and providing useful information for judging decision alternatives. Because local school personnel tend to ignore evaluative processes, greater attention to systematic evaluation is now mandated for participation in many educational improvement programs--particularly those that are federally funded.

Simply the enumeration of the foregoing functions, tasks and processes provides a broad perspective that helps one appreciate the multitude of

expectations held for the principal's role. Yet two other points should be made. First, the implementation of any major change within the school is a dynamic process. Hence, the principal as a change agent must understand the continuous interplay and interaction among the functions to be fulfilled, the tasks to be performed and the processes to be utilized if the change is to be successful. Second, the principal and others must recognize that changes within the school inevitably and ultimately involve mutual interpersonal interaction. The principal cannot "go it alone." Hence, attention must be given to establishing mutual role expectations and perceptions as a basis for working effectively with others.

Role Relationships of the Principal

The principal's role as an agent of educational change was described above in terms of the functions to be fulfilled, the tasks to be performed and the processes to be utilized. Regardless of how described, the effectiveness of the principal can be measured by the extent to which his or her on-the-job behavior meets with the expectations held for the role. Since role effectiveness is of universal concern, how may role expectations be depicted and described so that working relationships can be improved?

Role theory may serve as the conceptual key to unlocking the human potential for change within schools so that organizational and individual effectiveness and efficiency can be enhanced. Roles represent the dynamic aspects of a position, office or status within an institution (Linton, 1936). Roles are complementary and interlocking, e.g., principal-consultant; they are institutional givens and not "made to order"; they are somewhat flexible, having behaviors ranging along a continuum from "required" to "prohibited"; they vary in scope from functionally specific to functionally

diffuse; and they serve as standards by which the effectiveness of one's on-the-job behavior is judged (Getzels and Guba, 1957).

The Role of the Principal

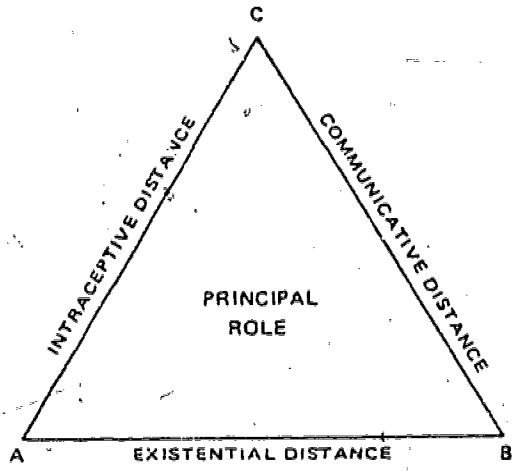
In applying role theory to the school we can consider the principal-consultant relationship to depict three types of role expectations and the interactions between and among them. These three types of role expectations are self-role expectations, alter's role expectations and perceived alter's expectations.

Self-Role Expectations. As shown in the diagram in Figure 1, point A of the triangle represents the expectations held by the principal for his or her own role as principal of the school. These self-role expectations are powerful determinants of behavior and are derived from one's own background, training and experience. They represent the extent to which the principal feels that he or she should or should not fulfill certain functions, do specific tasks or use particular processes as the principal of the school. They are continually mentally measured in terms of the statement, "As principal, I am expected to . . ."

Before leaving point A, we should also observe that self-role expectations include two types, "actual" role and "idealized" role. Several recent studies (NASSP, 1978 and 1979) have revealed that often there is a considerable discrepancy between what principals, in fact, do (e.g., "how I do spend my time"), and what they feel that they should do (e.g., "how I should spend my time"). The difference between one's actual role behavior and the idealized role behavior one posits for his or her own position is a measure of role adequacy.

Alter's Role Expectations. Point B in Figure 1 represents the alter's expectations for how the principal either does or should behave. Again,

PRINCIPAL'S PERCEPTIONS OF CONSULTANT'S EXPECTATIONS FOR THE PRINCIPAL'S ROLE ("I believe that the consultant expects me to ...")



PRINCIPAL'S SELF-EXPECTATIONS FOR THE PRINCIPAL'S ROLE ("As principal, I am expected to ...")

CONSULTANT'S EXPECTATIONS FOR THE PRINCIPAL'S ROLE ("I expect the principal to ...")

FIGURE 1. Role Expectation and Role Perception Relationships.

these expectations derive from previous training and experiences of the alter with the focal role of principal. In the case at hand, the consultant holds many expectations for the principal--sometimes positive, but often negative--measured in terms of the statement, "I expect the principal to . . . ."

Examination of the distance between point A, self-role expectations, and point I alter's expectations, can be both revealing and helpful. This distance is called existential distance, not in terms of philosophical distance, but existential in terms of the magnitude of the differences that exist--the length of line AB. In some principal-consultant situations line AB may be quite short; there is considerable understanding and agreement on expectations for the principal's role. In other situations this distance may be quite great--particularly if the consultant holds uninformed, incomplete or biased expectations of the principal as an actual or potential agent of change. Thus, the need exists for many consultants to understand better the scope and magnitude of the functions, tasks and processes of the principal's role.

Perceived Alter's Expectations. In addition to the role expectations held by the principal himself or herself (point A) and those held by the consultant for the principal (point B), and the difference between them (line AB), disagreements and misunderstanding can also derive from another source, point C in Figure 1. These differences are not existential but perceptual. In our example, such perceptions held by the principal are measured by the statement, "I believe that the consultant expects me to . . . ."

Since we live and act in terms of the world as we see it, one's perceptions of alter's expectations become exceedingly important. As an

example, we can consider the comments of one principal who defensively, if not realistically, stated:

> It seems so easy for consultants to zip in and out of here and say "Do this" or "Do that." But I'd like to see them try it with the parents, staff and students in this school. In my job, these "hot shots" would fall flat on their faces in ten minutes!

In view of the above situation, it is instructive to examine in Figure 1 the difference between what the consultant expects of the principal (point B) and what the principal perceives as the consultant's expectations (point C)--the length of line BC. This difference is called communicative distance. This distance can be reduced by opening formal and informal communication channels, utilizing adequate means and engaging with appropriate frequency in the communication of mutual expectations.

Several studies (Abbott, 1960; Hencley, 1960) have shown the ineffectiveness of an interaction to be due less to the differences in expectations that are out in the open and understood than to those that are misperceived and misunderstood. In our example, therefore, as Ferneau (1954) discovered several years ago, the principal and the consultant would do well to discuss freely and openly their mutual role expectations--in effect, reducing the communicative distance between them.

To complete our examination of the relationships in Figure 1, we should also consider the relationship of the principal's self-role expectations (point A) to the principal's perceptions of alter's expectations (point C), and the difference between them--line AC. This difference, termed intraceptive distance, possesses several implications for the selection, preparation and improvement of principals.

Why is it that some people are able to assess immediately and accurately the expectations that others hold for them while others experience great difficulty, even if they can do so at all? Research

on perceptual discrimination and perceptual integration suggest that through adequate training programs and experiences in appropriate settings, it is possible to improve substantially one's intraceptive skills. These issues are explored further in the concluding section of this paper which deals with developing the human resources of present and prospective principals.

Complementary Role Relationships

Thus far in our analysis, we have devoted attention to only one-half of the complementary role relationship--the principal's role. In a mutual role relationship, however, a similar analysis must be made of the interlocking role--in our example, that of the consultant--since the same expectation, perception and distance phenomena exist.

As may be seen in Figure 2, the consultant's self-expectations for his or her own role (point A'); the principal's expectations for the consultant's role (point B'); the consultant's perceptions of the principal's expectations (point C'); and the existential (line A'B'), communicative (line B'C') and intraceptive (line A'C') distances regarding the consultant's role are equally relevant. Thus, it becomes mandatory to map and describe the functions, tasks and processes expected of the consultant, as was done for the principal in the first part of this paper. This is a tall order, indeed, because of wide variations in the emerging role of the consultant when compared with the established role of the principal. The expectations for consultants may range from information giver and resource utilizer to process helper and problem solver. Therefore, theoreticians and practitioners engaged in dissemination should continue to discuss and describe the linking role of the external consultant in education.

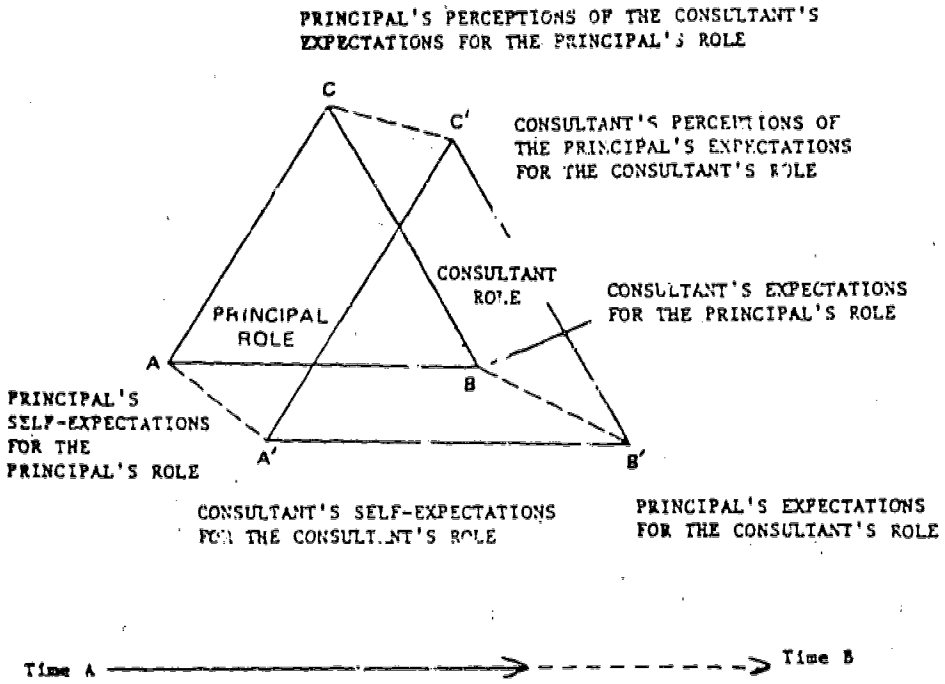


FIGURE 2. Complementarity in Role Expectations and Perceptions between Interlocking Roles.

In describing the role of the consultant it may be helpful to examine in Figure 2 the areas of the three planes between triangle ABC and triangle A'B'C'. Future research may well reveal a considerable degree of similarity between the principal's role as an internal change agent and the consultant's role as an external change agent--particularly regarding such issues as the context and organization of the school, the administrative and teaching-learning processes utilized and the outcomes of the school. Thus the selection, preparation and improvement of internal and external educational change agents may have much in common.

Finally, it should be observed that although the complementary role relationships are shown as a somewhat static model in Figure 2, when one introduces the element of time, then the points, distances and planes may shift dramatically with the triangle becoming far from equilateral. Hence, longitudinal research studies of change in the principal-consultant relationship in several school situations are essential.

Research on the Principal's Change Agent Role

During the past decade substantial research on the principal's role as an agent of change has been conducted--particularly at the Wisconsin Research and Development Center for Individualized Schooling (Lipham and Fruth, 1976; Lipham and Daresh, 1980). Several researchers have examined both elementary and secondary schools as, over the years, they made the major change to programs of individualized schooling. Theoretical elements of various views of change were examined, including the problem solving model (Jung and Lippitt, 1966), the social interaction model (Rogers, 1962; Rogers and Shoemaker, 1971), the research-development-diffusion model (Guba, 1968; Guba and Clark, 1974) and the linkage model (Havelock, 1969; Havelock and Lingwood, 1973) of educational change.

The Phases of Change

In the research at Wisconsin, the process of implementing educational change was conceptualized in terms of the following phases (Klausmeier, Karges and Krupa, 1977):

1. Awareness Phase. Local educators become sensitive to the need for change and become informed about programmatic alternatives. Decision makers are given an overview of a program in order to stimulate them to consider it and information regarding the required commitments to adopt it.

2. Commitment Phase. Local decision makers compile the necessary information and secure the necessary commitments, approvals and cooperation of people--staff, parents, community groups and the school board. At the end of this phase, the decision to adopt or not to adopt the program improvement is made. In making the decision to adopt, local educators are provided with information describing the change, cost factors, evaluation results and the requirements for implementing the change.

3. Changeover Phase. The school staff becomes prepared to make the changeover. First, leaders are identified, receive instruction regarding the change and develop plans for implementation. Specific plans are operationalized during the changeover period, and throughout, the school staff participates in ongoing staff development.

4. Refinement Phase. After school staffs have begun implementing the change program, they find that new understandings and skills are required to refine their implementation efforts. The need for refinement emerges out of the fact that the staff members are expected to perform their responsibilities in new ways. On the basis of systematic feedback, the change program itself may also be refined.

5. Renewal Phase. This stage includes activities designed to identify and resolve unanticipated problems to develop improved ways of implementing the change, and to prepare successive generations of professional personnel to fill new and expanded roles.

The findings from only a sampling of the several studies are cited here to highlight the leadership and decision making responsibilities of the principal as an agent of change.

The Principal and Leadership

At the elementary school level, Goodridge (1975) sought to answer the question, "Who are the individuals in the school who make the initial decision to adopt an innovation?" By visiting, observing, interviewing and examining elementary schools that were implementing a major innovation, he found that principals were the major decision makers in the decision to adopt change. In the majority of schools, moreover, this decision was shared with teachers in the school. Superintendents, central office personnel and parents typically were minimally involved in the decision to adopt a major change. Moreover, school boards often let others make decisions about the adoption of educational programs if no additional costs were involved.

At the secondary school level Neiner (1978) conducted a study in six comprehensive senior high schools that had adopted a major change of individualized schooling. Data were collected through nonparticipant observations, documentary analysis and indepth analysis of semistructured, open ended interviews. A major finding of the study was that the nature and quality of the leadership behavior provided by the principal appropriate to the various phases of the implementation process were essential to effecting educational change. Moreover, continuity in leadership positions on the part of administrators was essential. Those schools experiencing greatest difficulty had a high rate of turnover in the principalship. In addition, the following components were necessary to implement change: a shared decision making structure, adequate inservice training of staff and a program of continuing curricular development.

Gramenz (1974) examined the relationship between the leadership behavior of the principal and teachers' perceived effectiveness of an innovative

instructional program in elementary schools. He found that when principals exhibited instrumental, supportive and participative leadership, then the instructional program of the school was evaluated as effective. He concluded, therefore, that principals should exhibit behaviors indicative of instrumental leadership (clarifying expectations, specifying procedures to be followed and assigning specific tasks), supportive leadership (being friendly and approachable, looking out for the personal welfare of staff members and helping make work pleasant on their tasks) and participative leadership (consulting with staff members before taking action, allowing staff members to influence decisions and asking staff members for suggestions and input in decision making).

Moyle (1977) also examined the principal's leadership behavior in relation to the effectiveness of decision making in elementary schools engaged in implementing a major innovation. He used interview and observation techniques to characterize and describe the leadership behavior of principals according to instrumental, participative and supportive leadership dimensions. Decision making processes were described according to their perceived effectiveness and the extent to which members felt satisfied with how decisions were made and the actual decisions that were made. He found that whereas instrumental (directive) leadership was exercised with caution by principals, other staff members viewed the principal's instrumental behavior as a positive leadership attribute. Supportive leadership was also very important to teacher motivation and satisfaction, as well as decision making in the school. Even so, the multitude of job responsibilities frequently precluded principals from providing supportive leader behavior to the extent desired by both themselves and others. Participative leadership was also exhibited by

principals in that they accepted information, input and advice of staff members. From these findings he concluded that the leadership behavior of the principal was the central critical factor in the effective implementation of a major innovation in the school.

The Principal and Decision Making

Several researchers have examined the decision making process in elementary and secondary schools actively engaged in implementing the major educational innovation of individualized schooling. Holmquist (1976) conducted an intensive onsite observational study to ascertain qualitative descriptions of the decision making process in innovative elementary schools. He spent considerable time in three selected schools examining primary documents, observing meetings and interviewing the total staffs of the schools. Regarding the content of decisions, he found considerable sharing of decisions regarding curriculum and instruction and student personnel, but some reluctance of central office administrators and even some school principals to share decisions concerning staff personnel, finance and business management, school plant and home-school-community relations.

Regarding the stages of decision making, Holmquis discovered that great attention was given to the initial stages of problem articulation, alternative posing and weighing and making the decision choice, but little attention was given to the subsequent stages of decision implementation and decision evaluation. He also discovered excessive reliance on a total group participation mode for making many decisions. Such personal variables as expertise, experience in the school and informal influence, and such organizational variables as legal requirements, formal position held and

access to information frequently rendered the actual decision making process in the schools to be more social or political than it was rational.

Additional observational studies of decision making in innovative elementary schools were conducted by Kawleski (1977) and Moyle (1977). In schools implementing programs of individualized schooling, they found that teachers were dynamically involved--making and implementing many decisions regarding instructional programming, curricular materials and student evaluation. Even though the scope of such decisions occasionally was constrained by the central office or the principal, teachers generally were able to share information, expertise and input to making, implementing and evaluating decisions regarding instructional programming.

Concerning the stages of making decisions, however, Kawleski and Moyle found, as did Holmquist (1976), a tendency to over use the total group participation mode. The decision making process, moreover, often was unduly influenced by positional, organizational and personal variables. Regarding decision involvement, the researchers concluded that teachers generally were satisfied with both the frequency and the level of their involvement. Teachers, however, desired an increase in the scope of their involvement--particularly in school and districtwide decisions--since some of the decisions they viewed as their prerogatives were still being constrained by district and schoolwide policies, procedures, committees and individuals.

In an observational study of the decision making process in six innovative high schools, Watkins (1978) examined the philosophies, structures, processes and groups engaged in decision making; the involvement of personnel in the decision making process; and the satisfaction of school personnel with their involvement in decision making. He found a clearly articulated, understood and internalized philosophy of education to be

essential as a basis for policy, managerial and instructional decision making. Moreover, an articulated policy for making decisions was essential to the successful implementation of an innovative instructional program. In the schools examined, many of the major educational decisions were shared. The level of staff participation in the decision making process was perceived by the staff to be generally satisfactory. Even so, the principal still performed a major role in determining the decision making policy and in implementing the decision making structures and processes. Thus, the decision making process consisted primarily of authoritative decision making utilizing a participative approach.

Regarding the schoolwide organization for decision making, those structures which were highly satisfying to the staff facilitated intradepartmental and interdepartmental exchange of information, ideas and opinions; accelerated decision making at the teaching-learning level; and afforded ready access to administrators. Regarding districtwide decision making structures, secondary school staffs felt frustrated in their efforts to provide input to and influence on districtwide decisions which increasingly seemed to impact on curricular, staff and student personnel, and financial operations of the local school. In sum, appropriate decision making structures had not yet been developed to articulate school concerns with district concerns, and conversely.

Conclusions Regarding the Principal's Role

From the foregoing and other studies several firm conclusions can be drawn regarding the leadership and decision making behavior of the principal as an agent of change. First, the leadership behavior of the principal is a powerful factor which influences the adoption and institutionalization of an educational change. Moreover, different styles of leadership are necessary.

in the different phases of the change process. Second, the nature and quality of leadership provided by the principal are directly and positively related to the perceived effectiveness of the decision making process, the perceived effectiveness of instruction and staff motivation and morale. Third, the philosophy and organization of the school affect the decision making process. Hence, schools should be structured to provide opportunities for those affected by a decision to participate in making it. Finally, there is an increased desire on the part of teachers and other staff members to become involved in the decision making process on schoolwide and districtwide matters, as well as on classroom issues. Moreover, the appropriate involvement of the staff in decision making is significantly and positively related to the outcomes of the school.

Barriers to Change Faced by the Principal

From the foregoing research findings regarding the principal's role, several barriers to educational change and improvement can be identified. These barriers may be better understood, classified and dealt with at different levels of the school organization.

According to Parsons (1958), the school is not a simple, direct line hierarchy but, instead, consists of the institutional or community system, the managerial system and the technical system. There are qualitative and quantitative breaks across these three system levels in terms of their structure, authority, supports, controls, exchanges, processes and interactions. Factors which constrain the role of the principal as an agent of change can be considered at each of the system levels.

Institutional Barriers

The institutional or community level includes the national, state, local and community environment of the school, including the board of education as the interstitial agency between the institutional and the managerial levels.

Clearly, a multitude of barriers to change exist within this larger environment and impinge directly on the school. General societal and community attitudes toward change constitute the first and foremost barrier. Through the years, even the meaning of innovation itself seems to shift from that of being a "good" to a "dirty" word. At the present time, there is a substantial anti-innovation bias in our society.

Diversity in community values, the lack of congruence between predominant community values and the culture of the school and the continual conflict between prevailing economic and social values frequently serve to stymie change. In addition, such demographic variables as size, location and composition of the community must be considered. It probably is no accident, therefore, that most major change programs in education are first tried and implemented in affluent suburban schools before they finally find their way to urban or rural ghetto ones.

Another institutional-level barrier to change is that of citizens' expectations for the schools. Recent national polls (Gallup, 1979) reveal that citizens' ratings of the schools continue to decline. Findings from our studies of educational change (Lipham and Daresh, 1980) reveal that apart from the departure of the principal, the next most important reason cited for a school's abandoning an educational innovation is that of "lack of community support."

Boards of education typically become barriers to a change only if if costs more money. Since most educational change programs incur at least

some additional initial costs for staff training and development--not to mention materials--many proposals for change are stymied at this point. Even if such initial costs are to be picked up by special state or federal projects, school boards, perhaps rightfully so, have become quite leary of programs for change.

Managerial Barriers

The managerial level is comprised of the board of education, the school superintendent, central office line and staff personnel, the principal and other building-level administrators and specialists, and, in some school systems, also includes academic department heads within the school.

Ironically enough, the managerial level typically constitutes the most formidable of all barriers to the implementation of educational change. An inordinate amount of time is typically spent by the innovative principal in working with, through, or around the bureaucracy. At the superintendent's level, our recent studies (Artis, 1980; Brittenham, 1980; Zimman, 1980) have shown that just as the leadership and decision making behavior of the principal pervade the school, so likewise do the values, orientations and behavior of the superintendent pervade the district. In the words of one principa :

> If the superintendent is against it, then forget it! He can marshall the support of the board, the community, the teachers and everybody else to nail your hide to the wall.

Fortunately, unless there are serious philosophical objections, economic considerations or community reactions, most superintendents seem more than willing to foster a climate of change and diversity within their local schools--particularly on matters of curriculum and instruction wherein they frequently yield to the wishes, plans and proposals of the principal and his or her staff.

Less likely than the superintendent to foster changes in the local school are the central office directors, supervisors and coordinators whose specialized "kingdoms" and programs are often seriously threatened by a major educational change. When these people do become aware of a proposed change in a local school, they usually serve as barriers by insisting that the "wrong axe is being ground." Sometimes, those who head "kingdoms" at the central office join forces with department chairs who head "fiefdoms" in the school and the hands of the principal are secured. Fortunately, however, many of the recent change programs in education are content specific, such as in reading or mathematics, hence they may receive sustained and specialized support by central office personnel who are on the cutting edge of their fields.

In summary, the barriers to change at the managerial level are formidable indeed. In the words of some recent researchers (MacPherson, Salley and Baehr, 1979):

> The commonly expressed idea that principals are or should be change agents may be subject to considerable revision. . . . Unless some environmental characteristics, particularly those related to the organization of the school and school system, are changed, the principal rarely will be a change agent and his or her work will be routinely predictable.

Technical Barriers

The technical system level concerns the workflow of the school and consists essentially of teachers, students and to some extent parents.

Although most school principals can cite one or more teachers whose transfer would be welcomed (teachers sometimes feel the same way about certain students), it can be safely concluded from our studies of change (Lipham and Daresh, 1980) that few major barriers to change exist at the technical level of the school. Of course, many decry the fact that the

advent of professional negotiations has lessened the principal's latitude for leadership, but such may or may not be so. The formalization of role relationships in terms of a negotiated agreement seems instead to have heightened staff expectations for effective leadership of the principal and appropriate involvement of the staff in decision making. Thus, it becomes painfully evident, if by no other measure than the number of grievances filed, when the leadership of the principal is lacking.

Without belaboring further the barriers, suffice it to state simply that some innovative educational programs do seem to get implemented effectively in a few local schools, hence the job ahead is to understand and foster these thrusts.

Suggestions for Strengthening the Principal's Change Agent Role

In this concluding section three proposals are presented for discussion, analysis and consideration which may enhance the role of the principal as a human resource for bringing about sustained, significant change in the local school. These proposals relate to defined needs for future research, preservice internships and inservice programs that should be stimulated by initiatives at the federal level.

National Cooperative Dissemination Research

Much already has been done to conceptualize and synthesize our current knowledge concerning change, innovation and dissemination in education. Yet we seem to face a current condition wherein theorists continue to talk to theorists; concepts get defined and redefined; studies are completed, abstracted and filed; and linkages among national, regional, state, intermediate and district levels are first established and then destroyed, while in the meantime the school keeps trundling along, largely oblivious to these many noble efforts.

The sad fact is that many people seem to talk about more than they actually know in the area of educational dissemination--at least insofar as understanding the dynamics of change within the local school is concerned. Most of the major studies of educational change (Berman, Greenwood, McLaughlin and Pincus, 1975-77) have been devoted to an ex post facto analysis of change programs rather than an ongoing analysis of the change process. The last serious studies of the interface between internal and external change agents in local schools were conducted nearly thirty years ago at the University of Chicago (Savage, 1952; Ferneau, 1954). Extant descriptions of the functions, tasks and processes of the external change agent's role are limited largely to descriptions of the "super linker" (Crandall, 1977). And the discretionary role of the principal as an agent of change is viewed as practically impossible (Crowson and Porter-Gehrie, 1979).

To remedy in part our current condition it is proposed in terms of the theoretical model presented herein that serious, sustained longitudinal studies be conducted in innovative local schools concerning the interface between the principal's role as an internal agent of change and the consultant's role as an external agent of change. At the federal level, a National Cooperative Dissemination Research Program should be established and an RFP designed, developed and distributed which seeks to investigate how the mutual interaction of principal-consultant roles contributes or fails to contribute to educational improvement in the local school through time.

National Dissemination Fellowships

University based clinical internships in the form of student teaching have long been recognized as perhaps the most viable means for preparing

prospective teachers. Similarly, university based administrative internships which would place prospective principals and/or consultants, first within innovative local schools, and then within the consultative agencies that serve these schools, would seem to be a viable means for increasing prospective principals' and consultants' understandings, skills and attitudes regarding the mutuality of roles in the implementation of change in local schools.

It is proposed, therefore, that a competitive program of National Dissemination Fellowships be established and funded. Advanced graduate students in colleges and universities having degree programs for the preparation of principals and consultants as agents of educational change should be screened, selected and invited to participate in this program.

National Dissemination Consortium

To improve the performance of presently practicing principals several alternative approaches might be explored. A National Dissemination Consortium should be formed of those schools and consultative agencies in which Dissemination Research is conducted and/or in which Dissemination Fellows serve internships. Although this group might be surprisingly small, its impact could have wide ranging effects. A second aspect of the Consortium program should be devoted to strengthening the current dissemination efforts of centers, laboratories, state education departments and other agencies that interface with local schools. Third, as teacher centers are being established throughout the nation, is there not also a need for administrator centers? The Dissemination Consortium could spearhead this effort. Finally, a fourth program in the Dissemination Consortium could enhance the efforts of national, state and local associations of administrators and supervisors which are already

substantially engaged in educational change activities. Through sponsoring presessions at annual meetings or a series of special dissemination conferences a federally sponsored Consortium would enhance greatly the efforts and impact of these associations.

Certain variations of the above activities have been tried before in other areas and we can point with pride to many of them in terms of their ultimate impact. Clearly, the three programs proposed do not exhaust all possibilities for improving the human resources of the school, but the efficacy of these proposed programs, as well as other approaches, should be explored.

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Equity of Audiences in Educational Dissemination

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The lack of capacity for knowledge production and utilization among the disadvantaged results in isolation from the mainstream of cultural and educational activity, lower levels of educational achievement, underutilization of social services, lack of input into the formation of public policy, underutilization of job training opportunities, underutilization of career development programs and opportunities, and underrepresentation in higher education and postgraduate programs.

Key Points: The **balance of power** in the society has **shifted from** those with control of the **means of production to** those with control over the production, collection and dissemination of **knowledge and information.**

The **growth in capacity** for knowledge production and utilization has **not occurred equally** among all segments of the population. The **gap** between information rich and information poor has **widened.**

The **Federal Government** became actively involved in the financing and support of **collection and dissemination centers in the 1960s.** These centers were **designed by professional educators** and practitioners, largely **for their own use.**

The assumption appears to be that there is a **one-way flow of information from** the **experts** in education to the actual users of the information – the practitioners in the classroom, other researchers and educational administrators.

It **assumes** that all segments of the population will **eventually** have access and make use of educational products, and that **equity will be achieved.**

Several years of operation of this system has **not proved to make education more equitable** across social groups.

One of the **barriers** to the achievement of the goal of equal quality education is the **composition of school boards and the tenure and promotion committees** of universities and colleges.

The disadvantaged segments of the society have **limited access** and make **little use of the present system** because there are few members of these segments involved in policy making, in agenda setting and in gatekeeping in the educational system.

The **disadvantaged are isolated from the educational system** by the lack of active involvement with the system in some cases (social isolation), by geographic isolation in other cases, by linguistic barriers in other cases, and by cultural differences in still other cases.

The **products are understandable only by experts,** and since the disadvantaged have few members trained to understand the product, the **effect is to limit access.**

Other types of barriers are behavioral, that is, they are created by the behavior, the culture, the goals, the needs, the expectations and the desires of the disadvantaged.

Many **disadvantaged persons make little use of the print** media, and rely heavily on the broadcast media for information. Since the **dissemination system is largely print oriented,** access and usage by the disadvantaged is thereby limited.

The diversity of information poor groups and the heterogeneity existing within and across them point out the **need for a diversified plan of action** for meeting a multitude of needs.

There are **three examples** of attempts to breach similar gaps between the "haves" and the "have nots" **which have worked** – the barefoot doctors in China, the county agent-home demonstration agent network in the U.S. rural development, and the national emphasis on universal literacy in Cuban education.

The attempt in designing **interventionist strategies** would be based on a **two-way flow** of information model. **Some ways to approach the two-way model,** in addition to the involvement of the disadvantaged in planning and evaluation, would be to develop field testing procedures for each phase of operation to provide **immediate feedback,** to **train researchers and practitioners** from the disadvantaged groups, and to design, collect, and disseminate educational **products appropriate** to the level of development of various groups.

EQUITY OF AUDIENCES IN EDUCATIONAL DISSEMINATION

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The face of American society has been rapidly changing in this century and the rate of change has been particularly high since 1945. One element of this change has been the shift from having the great bulk of the population engaged in the production of goods to having a preponderance of the population engaged in the production and distribution of knowledge (Ellul, 1964; Machlup, 1962). It is reported that over 50 percent of the population is involved in information and knowledge production and dissemination. Knowledge production and utilization (KPU) has become the central cost of the American economy (Drucker, 1969). At the same time, dramatic increases have been made in the production of goods, with an ever decreasing percentage of the population involved in such production.

This dramatic shift in emphasis within the society has required drastic changes in the life styles and educational profiles of many segments of the nation's population. The balance of power has shifted from those with control of the means of production to those with control over the production, collection and dissemination of knowlege and information.

The growth in capacity for knowledge production and utilization has not occurred equally among all segments of the population, however. While KPU capacity has increased among the disadvantaged, among women and among minorities, capacity has increased at a much faster rate among the advantaged segments of the population. Thus, the gap between the information rich and the information poor has widened (Katzman, 1974), mainly because of the necessity to master the technological paraphernalia which is the handmaiden of increased capacity. Access to, and utilization

of, knowledge and information is a necessary but not sufficient condition for the growth of influence, wealth and power (Meier, 1962).

This lack of KPU capacity among the disadvantaged has many ramifications for the society. The effect in some cases is an imbalance in the distribution of disadvantaged groups in the professions. Some 43 percent of all Black graduate students in doctoral programs were reported as being enrolled in the field of education (Institute for the Study of Educational Policy, 1976), and the number of Native Americans in the field of education was reported as being three times greater than the combined totals for medicine, law, engineering, ancillary medicine and business (Chavers, 1978). The percentage of Blacks entering the field of social work was reported to be several times greater than the percentage for the total population (Black Collegian, passim). One of the main reasons for the low Black enrollment in the fields of science and engineering was reported to be discouraging information on the need of the nation for such professionals (Wilburn, 1974).

The lack of capacity for knowledge production and utilization among the disadvantaged has other ramifications for the society, including isolation from the mainstream of cultural and educational activity, lower levels of educational achievement, underutilization of social services, lack of input into the formation of public policy, underutilization of job training opportunities, underutilization of career development programs and opportunities, and underrepresentation in higher education and postgraduate programs.

Assumptions of the Present Educational Dissemination System

With the increased emphasis on education sparked by the launching of the Russian satellite Sputnik in 1957, the federal government became more

heavily and extensively involved with the status of education in the nation than before. The enactment of the Civil Rights, voting rights and handicapped legislation and similar laws aimed at social justice brought the problems of minorities and the disadvantaged to national attention.

As a result, in the decade of the 1960s, the federal involvement in education came to represent a major component of the annual federal budget. While there had been informal dissemination of educational information and knowledge through professional associations, state governments and other means, in the 1960s the federal government became actively involved in the financing and support of collection and dissemination centers.

These centers were located at universities and research institutes and were designed by professional educators. There was extensive involvement in the design of these centers by professional educational researchers and some involvement by practitioners. As a result, the product which has received the greatest emphasis has been the collection and dissemination of educational knowledge, which is most often defined as the results of theoretical or applied research. Knowledge gained through scientific research is assumed to be the main "product" of the dissemination network (National Institute of Education, 1978).

Since the system was designed by professional educators and practitioners, it was designed largely for their use. The users are supposedly largely practitioners and the producers of the products are educational researchers. The assumption appears to be that there is a one-way flow of information from the experts in education to the actual users of the information--the practitioners in the classroom, other researchers and educational administrators--and through the practitioners to the pupils.

Other implicit assumptions are that the users are at the appropriate level of development, that there is a homogeneous population of users with the appropriate skills to access and use computerized data banks, information retrieval systems and research reports. This assumption means that the actual users are limited to those with appropriate training and education in computer operations and other skills. Most sources of products and information rely heavily on technology for cheap and effective means of storing and retrieving large banks of data.

The present system also assumes that meaningful education largely takes place in the classroom, or at least that enough of the education and socialization of the mass of citizens occurs in the classroom that the classroom can make a difference in the overall impact education has on the development of the educated person. It also assumes that all segments of the population will eventually have access and make use of educational products, and that equity will be achieved.

Barriers to Access and Usage

Several years of operation of this system have apparently not, however, proved to make education more equitable across social groups. In fact implementation of the system may have widened the gap between the information rich and the information poor (Katzman, 1974). If the impact of the program is antithetical to the announced goal of providing equal educational opportunity to the disadvantaged and the advantaged, then there are obviously some barriers to the achievement of the goal of equal quality education.

Some of the barriers are structural; that is, they were created by the designers of the system or were existing previously. One of these barriers is the composition of school boards and the tenure and promotion committees

of universities and colleges. Both types of bodies tend to be made up of older male Caucasians who are members of the business and political community. The disadvantaged segments of the community are grossly underrepresented, and their needs and wants are seldom taken into account. This situation--the educational system being administered by male Caucasian businessmen--has a long history, going back to the businessmen in the 1830s who pushed for the legalization of compulsory education as a means of assimilating and socializing immigrants who were needed as docile factory workers in New England, and levying taxes on the workers to make them pay for public education (Katz, 1972).

The controllers of education in the United States define the product which is to be considered for development by faculty members, and this product for higher education has been defined as the results of scientific research (Forbes, 1977). This concentration on scientific research has tended to denigrate knowledge arrived at in other ways, or other ways of seeking truth. The folk wisdom developed through the ages, for instance, is given little importance as an educational product, except as the study of it adds to scientific theory. The effect is to produce a massive national effort at understanding the dynamics of education without producing the substance or curriculum that the teacher needs in the classroom. With the additional linkage between the universities and the public schools that the educational dissemination system has provided, the universities are setting the agenda for the methodology and techniques used in the classroom similar to the way that in an earlier day universities determined the curriculum of the secondary schools by developing the course requirements for admission to university study (Katz, 1972).

The disadvantaged segments of the society have limited access and make little use of the present system because there are few members of these segments involved in policy making, agenda setting and gatekeeping in the educational system (Chavers, 1974, 1978; Forbes, 1977). The result is that the educational system is not integrated into the community of interest of the disadvantaged; it is an element outside the community, in many cases existing in a colonial relationship to the disadvantaged elements of society. The disadvantaged are isolated from the educational system by the lack of active involvement with the system--social isolation, geographic isolation, linguistic barriers and cultural differences (Chavers, 1978). Regardless of the reason for isolation, the effect is to limit greatly the involvement of the disadvantaged in even the basics of education, and practically to eliminate their use of the present products of the dissemination system. The products are understandable only by experts, and since the disadvantaged have few members who are trained to understand the products, the effect is to limit access to the whole segment which has few experts because most communication within such groups is in-group (Chavers, et al., 1971; Waddell and Watson, 1971; Bahr, et al., 1972; Dervin and Greenberg, 1972).

Outright discrimination against the disadvantaged, which is a more important factor than many in the nation want to admit, effectively limits their role in the educational system to one of being passive receivers of the benefits of formal education. The present dissemination network functions as a one-way system of communication from the advantaged to the disadvantaged, from the rich to the poor, from the highly educated to the poorly educated.

The lack of knowledge of the disadvantaged by the system designers and controllers also prevents or limits access and usage. Too little is known about the communication and other types of behavior of the disadvantaged, with the result that knowledge of how these groups function and behave cannot be taken into account by the system designers. With some notable exceptions (e.g., Dervin and Greenberg, 1972; Greenberg and Dervin, 1972; Bahr, et al., 1972; Waddell and Watson, 1971; Childers and Post, 1975), knowledge of the behavior of the disadvantaged in the United States is sadly lacking.

Other types of barriers are behavioral; that is, they are created by the behavior, culture, goals, needs, expectations and desires of the disadvantaged. Very often the goals of the disadvantaged are very different from the goals of the advantaged. There is great concern by many disadvantaged groups about survival and jobs, with little effort expended or available to pursue education as a goal.

Many ethnic minority groups are characterized by cultural systems which stress styles of learning other than the scientific, such as emulation, learning by practice and observation. Many such groups take pride in the preservation of their traditional cultural heritage. By excluding different learning styles from consideration, the controllers of education have, in effect, created a weak liaison with ethnic minorities. There is little expectation by the members of many minority groups that knowledge can be advanced by dissecting, separating, analyzing or fragmenting it, or by the study of individual elements taken out of the context of the whole (e.g., Castaneda, 1968, 1972a, 1972b; Neihardt, 1961). A major reason for the lack of formal education by the members of many disadvantaged groups is that the education offered in the schools is irrelevant to their cultural

environment; their education is greatly influenced by their out-of-school experiences and in many cases the out-of-school experiences account for the bulk of their actual education.

Many disadvantaged groups are characterized by a mentality of powerlessness. Their members are products of a self-fulfilling prophecy (Merton, 1959; Forbes, 1969) which leads to low expectations, poor motivation and other attitudes and actions detrimental to high achievement in education. Many are characterized by intensive use of interpersonal communication and most of the persons with whom they communicate are members of their social, racial, economic and cultural groups (Bahr, et al., 1972; Waddell and Watson, 1971; Chavers, et al., 1971; Dervin and Greenberg, 1972).

Many disadvantaged persons make little use of the print media and rely heavily on the broadcast media for information (Dervin and Greenberg, 1972; Chavers et al., 1971). Since the dissemination system is largely print oriented, access and usage by the disadvantaged is thereby limited.

Characteristics of the "Information Poor"

The usual definitions of the disadvantaged or the "information poor" include a variety of groups characterized by racial, economic, social, cultural and other attributes. If the information poor are defined as those groups having limited access to educational information and those which make limited use of the educational dissemination system, it is readily evident that such groups constitute a majority of the total United States population, as Chart 1 indicates.

But while such groups together constitute a majority, their share of the wealth, power and influence in the society is disproportionately less than those groups with ready access and high usage of the system. The groups

outlined on Chart 1 are characterized by poverty, with per capita income levels probably one half or less than the advantaged groups in the society.

The groups identified are heterogeneous both within and across groups. A few of them include persons representing a broad range of income, educational achievement and social development, but most of the groups have few if any members who are high on these variables and several groups have almost no members with high income, etc. In general, the groups are compressed at the low end of socioeconomic and educational development, but they are heterogeneous by and large on such variables as the topicality of education, socioeconomic status, language dominance, educational achievement level, cultural/sociological/psychological predispositions, the adequacy of existing data bases, the ease of access to the educational information they need to function as equal participants, group histories, and the degree of involvement with the educational mainstream.

If the various groups were to be further differentiated by role as student, public and professional (Paisley, 1978), as they in fact exist, the degree of heterogeneity would defy comprehension. That such variety exists is without question, and further points out the fragmentation characterizing the information poor. There is a lack of cohesive power bases among most disadvantaged groups, with few spokespersons to represent their interests to the education profession. Their poverty makes them relatively immobile and the lack of outgroup links makes them a series of relatively isolated, unconnected clusters. To use communication terminology, the information poor occupy a series of niches in the communication environment (Dervin and Greenberg, 1972), with relatively little overlap among the niches, few links with each other and few links with the advantaged groups in the society.

Educational Information Needs of the "Information Poor"

The diversity of information poor groups and the heterogeneity existing within and across them point out the need for a diversified plan of action for meeting a multitude of needs. One possible approach is to list some of the content areas that the major clusters of the information poor are likely to need to achieve a greater degree of equity, and to attempt to ascertain which groups are likely to have need for and use each content area.

Chart 1 is an initial attempt using this approach. Some explanation of the chart is necessary. First, such an attempt is highly subjective, there are many variables to be taken into account in such an effort, among the most important being the range of educational achievement within a group and the number of persons with specific skills to utilize a specific content area. Second, there is little data for comparison, so that definitive statements about numbers of persons are difficult to make. Third, the chart assumes instant and universal access, not hampered by individual mobility, cost factors, isolation and the like. Fourth, the chart reveals a very rough approximation of a hierarchy of need, assuming that this initial attempt is not too unrealistic. Fifth, roles within groups (Paisley, 1978) are not delineated; groups are listed in the aggregate. Sixth, the chart is not inclusive or definitive and is only intended for illustration and comparison.

Using the chart as a point of departure, some generalities about educational information needs may be possible. If the chart is not too far off the mark, it reveals the most likely educational information needs of groups (Paisley, 1978). Some groups have more cohesive power bases than others, for instance, and devote substantial amounts of resources to policy making, while others devote little if any resources to policy making. If

Chart 1: Possible Content Areas of Educational Information for the Disadvantaged

	Educational Opportunities	Career Education	Program Design	Curriculum Materials	Culturally Relevant Standardized Tests	Baseline Data	Impact Data	Policy Studies	Theoretical Research
Minorities	X	X	X	X	X	X	X	X	X
Rural	X	X	X						
Poor	X	X	X						
Women	X	X	X	X		X	X	X	X
Immigrant	X	X			X				
Institutionalized	X			X		X			
Parents	X	X	X						
Students	X	X		X					
Handicapped	X	X	X	X					
Elderly	X					X	X		
Number of Groups with Information Needs In Content Area	10	8	6	5	2	4	3	2	2

information is disseminated using a cost analysis basis for optimal or minimal usage, as is likely, the dissemination network will not likely have a free hand at attempting to meet the special information needs of a small number of persons from only one group, as an example; it is likely that a content area will be addressed if there is substantial demand for it.

Since the concentration of information needs is at the "lower" end of the "hierarchy," it is likely that the needs of many groups are in the areas of practical application, rather than in theoretical research (Childers and Post, 1975). The information needs of the information poor are little concerned with the results of theoretical research and emphasis on research to the exclusion of other content areas will continue to limit usage by these groups. The probable emphasis should be on collection and dissemination of practical tools and products relevant to the history and culture of the various groups (Forbes, 1977).

Removing Barriers to Information Dissemination

A capsule summary of the main points of this paper up to this point would be as follows:

1. Education in the United States is controlled by those who are not disadvantaged.

2. There is a gap between the information rich and the information poor, and the technology based, research oriented educational dissemination network has widened the gap.

3. Access to information, and utilization of it, is necessary for equality in education.

4. The present dissemination system is characterized by a one-way flow of information from the producers and researchers to practitioners.

5. The designers of the system have inadequate knowledge of the disadvantaged to provide them with appropriate products and to stimulate usage.

6. The "information poor" are heterogeneous, fragmented and have poor linkage outside their social groups.

7. The education products most needed by the information poor are those with practical application, rather than with theory and research.

The most important point to be made, perhaps, is that there are differences between those in the education profession and the disadvantaged, who are the least successful consumers of education. From the perspective of communication and sociology, there is inadequate linkage between the information rich and the information poor, there are differences in value systems and patterns of behavior, and there is a one-way flow of communication and information which has proven inadequate for the goal of providing equal educational opportunity.

A comparison with another education program in the United States will illustrate the point. With the passage of the Bilingual Education Act in the late 1960s, the United States made a commitment to provide initial education to non-English speakers in their first language as a means of achieving better education. This was implemented through Title VII of the Elementary and Secondary Education Act. Within a few years it became evident to the government officials operating the program that there were not enough bilingual teachers available to staff the classrooms. In the second stage, the program was modified to provide for the training of bilingual teachers. Then it was discovered that there were not enough university faculty members knowledgeable in bilingual education to train the teachers, and in the third stage, provision was made for the training of faculty members for teacher training programs. Perhaps the educational dissemination network is now at a comparable second stage, and a way can be devised to train persons who would be analogous in the dissemination effort to teachers in education practice.

The problems with the present system are formidable and are not unique to the dissemination system; they are also encountered in the educational system in general. Fortunately, there are three examples of attempts to breach similar gaps between the "haves" and the "have nots" which have worked--the barefoot doctors in China, the county agent/home demonstration agent network in U.S. rural development and the national emphasis on universal literacy in Cuban education.

Equity in knowledge production and utilization calls for a bold approach with a syst of planned intervention for educational change for the disadvantaged. Such an attempt might involve the training of persons indigenous to each group in the use of education products, and the reimplantation of these persons in their communities. Through direct contacts with the dissemination network they would then, in effect, become liaisons between the educational professionals and the disadvantaged groups of which they are members.

The planning of such a system should involve the integration of research from the fields of communication, sociology, anthropology and psychology on the information seeking and educational behavior of the various groups of disadvantaged in the United States. Planning should involve a mix of representatives of the various disadvantaged groups in the design of research, the development of plans and the implementation and evaluation of programs. The appointing of advisory boards would probably be the most appropriate method for involvement and stress should be placed on the employment of persons from disadvantaged groups as employees in the collection and dissemination system at all levels.

The attempt in designing interventionist strategies should be based on a two-way flow of information model. Some ways to approach the two-way model,

in addition to the involvement of the disadvantaged in planning and evaluation, would be to develop field testing procedures for each phase of operation to provide immediate feedback, to train researchers and practitioners from the disadvantaged groups and to design, collect and disseminate educational products appropriate to the level of development of various groups.

The most important point to be made, however, is not that interventionist strategies or any other particular technique will work best; proper design and testing will determine this. Whatever approach is made will have to take into account the lack of communication and linkage between the advantaged elements of the society and the disadvantaged elements. The fate of the disadvantaged is partly determined by the actions of the advantaged and is partly determined by the attitudes and actions of the disadvantaged groups themselves. Self-determination has not been thought to be important by most professional educators and controllers of education up to now. For educational improvement for the disadvantaged to occur, however, self-determination will have to be used to build upon the experiences of disadvantaged groups, rather than being thought of as an obstacle to the achievement of what persons other than the disadvantaged think should be the proper education.

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Federal Involvement in Education: A Principal's Point of View

Dr. Samuel L. Williams, Principal, Castle Hill Elementary School, Lauderhill, Florida

Education cannot be adequately supported by local and state taxation. Withdrawal of federal support would cause the nation's school systems to collapse. Practically every argument in favor of federal aid to education is based on the doctrine of equal educational opportunity.

Key Points: The ideal is that **every individual should have the maximum opportunity to rise to their highest stature** and be **helped in every possible way to make the most of their potentials.**

The **federal government is the only American institution** through which the **gross inequalities** across the nation **can be appropriately addressed and minimized.**

As federal aid has increased, every effort has been made to have each **local district make decisions about** the degree and kind **of federal aid to request and use.**

The decline of widespread concern over the possibility of a national policy for schools **shifted** to **concerns about new federally assisted programs and their guidelines and controls.** Items written into compliance documents cause undue hardships or **unnecessary loss of teaching/learning time.**

The greatest and most **emotional expectation** was that **schools should take the lead in social reform** of the entire society. Desegregation and integration became a rallying point for many local districts . . . Title IX became a powerful weapon for females . . . Affirmative Action programs produced emotionally explosive dialogue and actions.

Affirmative action must have two very strong **components** . . . vigorous **recruitment** nationally and planned educational and **training programs.**

Principals have too little input into determing what is selected as the **district's area of concentration for federal assistance.**

Paperwork required to provide information by which guidelines compliance can be audited is the **biggest drawback** to federal aid.

Appropriations authorized by Congress to support programs are systematically **syphoned off** by excessive costs **for administration** (program directors, guideline writers, program reviewers, auditors, compliance officers). Fewer and fewer dollars trickle down to the schools to service children.

Pre and post teaching/learning activities infringe more and more **upon** the time teachers have to devote to **the act of teaching** and actual contact with children.

The interest of **improved readiness for instruction** in reading, writing and mathematics **can best be accomplished in formal school settings.**

Cases of **failure to diagnose**, prescribe and correct visual, speech and hearing problems **early** in children's school experience can be traced to later developmental problems.

Teacher **training institutions have not been effective** in acquainting their students with the day-to-day problems and realities of classroom instruction. During the past two decades open schools, team teaching and learning through discovery have each played a role in the **decline of teachers teaching understandings and skills** prior to expected usage by their students.

Those responsible for teacher education began to establish the role of **teachers as** that of being a **learning facilitator.** Teachers were **not expected to teach.**

The process of **teachers assigning learning tasks** to students **without having taught prerequisite understandings and skills** is so widespread and ingrained as to make a large percentage of **today's teaching ineffective.**

Recommendations: Centralize all information collected from schools to cut down on duplication of paperwork.

Provide relief to those having problems associated with federal program guidelines and implementation of services.

Provide additional funds for indirect costs.

Make grants of aid for clerical aides to help teachers with increased paperwork and nonteaching activities.

Improve federally funded preschool programs; move Headstart programs from local sponsoring organizations to school systems.

Assume earliest possible detection of problems that could cause unsatisfactory learning performance; provide leadership and support to the development of early intervention strategies.

Promote location of teacher training near where firsthand experiences can be provided.

Encourage a marriage between two-year community colleges and school systems to provide appropriate teacher education programs and experiences with four-year institutions providing a liberal arts program in conjunction with a school system's final two years work with prospective teachers.

FEDERAL INVOLVEMENT IN EDUCATION: A PRINCIPAL'S POINT OF VIEW

Dr. Samuel L. Williams, Principal,
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A major educational issue which has for many years concerned the public is the idea of federal financial assistance to public schools. The primary rationale supporting aid by the federal government is the recognition of inequality of opportunities. The doctrine of equal educational opportunity supports the notion that it is not right that an individual be penalized for the unfortunate circumstances or conditions of birth. An important question then is: To what extent does the good education that is necessary and possible actually reach all the people?

This outstanding American goal is stated as an ideal of the American people, equal educational opportunity for all. It establishes the American dream that all individuals shall have the maximum opportunity to rise to the highest stature that is within them and to guarantee that they shall be helped in every possible way to make the most of themselves and their potentials.

The free public school has been the major institution through which our nation has attempted to ensure equality of opportunity. The soundest argument for the establishment of free public schools was that education would open the doors to opportunity. In 1848 Horace Mann in his annual report on education spoke of free public education as "beyond all other devices of human origin, the greatest equalizer of the conditions of man--the balance wheel of society's machinery."

If equality of opportunity is to be achieved by means of education, there must be equality of educational opportunities. Educators and the American people long ago recognized that fact. Equality of educational

opportunity has frequently been used to support free public education and an exhaustive variety of educational practices. Practically every argument in favor of federal aid to education is based on the doctrine of equal educational opportunity. Arguments for broadening access to higher education and state equalization of funds are predicted on this idea. The 1947 President's Commission on Higher Education offered the idea that, "equal educational opportunities for all persons, to the maximum of their individual abilities and without regard to economic status, race, creed, color, sex, national origin or ancestry, is a major goal of American democracy."

What is meant by equal educational opportunity? People are born and endowed with unequal abilities to learn. Thus, people cannot be equal in that way. The fact that people are born and endowed unequally makes no difference. Equality of educational opportunity is not concerned with intellectual ability, but with the chance to get an education. It is the individual's chance to get an education which is to be equalized.

When discrimination was struck down by changing laws and customs, the working man assumed the same standing before the law as any other person. This made it possible for anyone to ascend the economic ladder to success without being hindered unfairly by legal restraints established specifically to keep him down. Changes in laws and customs made many people believe that equality had been accomplished. The law, if not the government, suggested that the opportunity of each person to acquire wealth was equal to that of anyone else.

Even the practice of providing equal access to education does not fully equalize educational opportunity. Providing any number of free services will not equalize educational opportunity. A child with visual

problems cannot see to study. It is of no value to give such a child books he cannot see to read. A child suffering with physical problems or inadequate food to eat will not have the same attitude toward school as a child who does not have these problems.

What then are the services that schools should provide? Should textbooks and all instructional materials be provided free? What about aids like eyeglasses, lunches, appropriate clothing for the indigent, health care and hearing aids? What about scholarships for able students who want to obtain a college education? Should all of these be provided free and at the public's expense? Whatever the answers to these questions are, schools are moving rapidly ahead to provide a multitude of social services intended to help equalization educational opportunity. This is possible because of federal intervention and assistance to education.

The ideal of equality is still widely accepted in America. However, in the past ten to twenty years the ideal has come under constant and severe criticism as being inadequate in the face of rising inflation. Men are still conceived as being equal in opportunity to use their abilities, but they now find themselves at a disadvantage due to unequal social and economic conditions. Inequalities have always existed. In the early days of the nation, existing inequalities were of much smaller consequence. Today, it is clear that any person who starts life with wealthy or rich parents and an opportunity to get a college education in America's prestigious institutions have a far reaching advantage over those born into less favorable circumstances.

The federal government is the only American institution through which the gross inequalities across the nation can be appropriately addressed

and minimized. Thus, the federal government is rightfully involved in education.

As the government works to bring about equity, more and more children are going to school without proper nutrition, without adequate clothing and without adequate mental and physical health. What is the answer? Should we arbitrarily step in and feed all children breakfast and lunch? Should we provide clothing, glasses, dental and health care? One can make a strong argument that the children of the nation are not capable of taking care of themselves. What parents do not do for them, someone must.

The need to help children today is significantly greater than it was two or three decades ago. The need will continue to grow without assurances as to what the end result will or should be. The ability to survive in today's society is becoming increasingly more difficult in terms of making a living. Expenses grow, commitments grow, pressures on the individual grow and yet the children of the nation are there waiting. They wait because their needs must be met. If the local community cannot meet them and if the state cannot meet them, obviously the federal government must assume a more responsible role.

Problems Associated with Federal Assistance

The federal government's involvement in education has always been of concern to the general public. During the 1950s and 60s the debate across the nation was federalism versus localism. Many citizens felt that with federal aid would come unwanted standardization of curriculum across America.

As time passed, it became evident that no attempt was being made to replace local decision making powers at the national level. Every effort

was being made to have each local district make decisions about the degree and kind of federal aid to request and use.

The decline of widespread concern over the possibility of a national policy for schools shifted to concerns about new federal assisted programs and their guidelines and controls. There seemed to be agreement that some controls were desirable. The focal point of concern were those guidelines which were unrealistic, unworkable or plain unneeded. Items written into compliance documents which caused undue hardships or unnecessary loss of teaching/learning time were the first to gain attention. Things like:

1. Insistance on comparability of each Title I school in terms of per pupil expenditures and student staff ratio resulted in unplanned and unexpected changes in many schools' staffs and programs.

2. Requiring that each child paying a reduced price for lunch be afforded total secrecy and privacy for such transactions resulted in extensive waste of time without accomplishing the desired objective.

3. Inequality constantly surfaced at schools where funds or program allocations were insufficient to allow all eligible persons to take advantage of the services provided.

As the early years of extensive federal aid to education passed, other concerns were addressed in compliance requests by those responsible for establishing program guidelines. Problems of massive proportions spread from one state to another as each tried to evade or deal honestly with new expectations. The greatest and most emotional expectation was that schools should take the lead in social reform of the entire society. Desegregation and integration became a rallying point for many local districts. Other districts were splintered, split and torn on this issue. Youngsters in various parts of the United States suffered and continue to suffer from the evils of unequal treatment because local and state boards of education continue to be irrational about integration.

While schools were trying to get problems of racial mixing under control, another one arose. Women and other minorities began to replace Black males as the focus of attention. Title IX became a powerful weapon for females. The beginning of a new movement toward equal employment, equal pay for equal job responsiblity and equal access to upper level positions for females and other minorities gave rise to what many referred to as reverse discrimination.

Affirmative action programs produced emotionally explosive dialogue and actions. Quota systems included in most plans established criteria for disputes and debates. A central question to the problem is: Does this procedure result in the most qualified individual receiving the job? The answer to the question is "no." In some instances the person with the best qualifications is passed over for a candidate with less glowing credentials. This should not happen. However, the problem or flaw is in the design of the individual program. Too much emphasis is placed upon establishing and implementing programs based on a quota system. Insufficient concern is given to assuring that quality will be available when needed. A program designed with serious intent towards successful affirmative action must have two very strong components. The two components are vigorous recruitment nationally and a planned educational and training program to prepare individuals for areas of expected responsibility. Recruitment and education and training must be ongoing and designed for future considerations.

School based administrators are concerned with planning, selection and preparation of proposals by grant writers. A large percentage of principals complain of too little or no input into determining what is selected as the district's area of concentration for federal assistance.

As program grants are renewed old problems are not eliminated. Often they are renewed and amplified.

Closer communication between principals and grant writers is desirable. It would make for better proposal writing based on needs and concerns at the source of teaching/learning activities.

Probably the most widespread and consistently mentioned drawback to federal aid is paperwork required to provide information to audit compliance with guidelines. Generally, directions are sent to explain directions and several different departments may request the same information on a different questionnaire. A large amount of money as well as time is wasted as meetings and workshops are held to explain forms or questionnaires which elementary students should be able to complete. There has to be a better way. Somehow centralization of all information collected from schools must take place. The data must be fed into a computer bank. The source of funds for this project would be savings in personnel, materials and time currently used to support this activity.

The original appropriations authorized by Congress to support programs are systematically syphoned off by excessive costs for administration. Costs for administration includes but is not limited to roles like: program directors, guideline writers, program reviewers, auditors and compliance officers. As each of these individuals at each level of government is paid for their services, fewer and fewer dollars trickle down to the schools to provide services to children. Some of the unwanted and unneeded administrative costs must be eliminated to supply more dollars to the direct costs of programs. This can be done without loss in effectiveness of guidelines and controls.

Relief for Problems and Future Directions

Individuals in positions of authority who have the power to make decisions must seriously consider the need to provide relief to those who are having problems associated with federal program guidelines and implementation of services.

Breakfast and lunch programs should be fully funded to make them available to each child free of cost. Additional funds are required to provide for indirect program costs. Chief among the extended services required with food programs is a need for funds for aides to supervise children during breakfast and lunch periods. Absence of this needed assistance in school districts operating under master teachers' contracts make it difficult, if not impossible, to provide necessary supervision. As long as school staffs do not have adequate supervision, there will be resistance to providing breakfast programs and lunch programs will operate in less than wholesome settings.

Inequality again becomes a factor. Breakfast is available to children in schools where teachers are liberal toward contract requirements and are willing to supervise the students. However, children in schools where staffs are not liberal toward contract stipulations are denied breakfast.

Expenses to extend food service programs to all students should be offset by savings realized by current program cost cuts. Savings in activities related to monitoring, accounting, administering and auditing should parallel increases caused by extending services to each child. Benefits accruing to school systems would be in terms of improved health, interest and attitudes of school children.

Teachers today are encountering serious problems with time. Pre and postteaching/learning activities infringe more and more upon the time teachers have to devote to the act of teaching and actual contact with children. Instructional time segments grow shorter. Learning activities become assignments of busy work to keep students out of the teacher's hair. Learning by students is not being enhanced. Teachers cannot be expected to continue to do excessive paper work and provide effective instruction during the same time blocks. A way to assist teachers with nonteaching chores must be found. Grants of aid for clerical aides to help teachers with increased paper work and nonteaching activities must be provided.

Preschool programs that are now funded by congressional appropriations should be improved. Headstart programs can be improved by switching community sponsoring agencies from local organizations with limited experience in and facilities for education to community school systems. The move would place three and four year old children in the care of professionally trained teachers with appropriate facilities for teaching and learning. Readiness activities of the three or four year old child should not be left to chance development. The interest of improved readiness for instruction in reading, writing and mathematics can best be accomplished in formal school settings.

A companion item to the expansion and relocation of Headstart is the need for Early Intervention Programs. Cases of failure to diagnose, prescribe and correct visual, speech and hearing problems early in children's school experience can be traced to later developmental problems. No children in schools across the nation should have to tolerate a traumatic experience like being placed in an educable mentally

handicapped class because someone failed to recognize that their problem stemmed from being partially blind rather than mental incompetence. Educators from coast-to-coast may recall some such horrible experience they can remember which is similar to the one cited. Even one such incident anywhere in America is one too many. The federal government should take steps to assure the earliest possible detection of problems that could cause unsatisfactory learning performance. Leadership and support should be given to the development of early intervention strategies.

A program of early intervention should be directed to screening all students in kindergarten and first grade. Screening should consist of speech, language, vision, hearing, physical, academic and psychological testing of each child on grades designated in programs developed.

The program also needs a followup component. This phase of work with the children consists of the screening team holding conferences with parents and school personnel. The intent of such conferences would be to communicate problems and help secure needed corrective services.

Teacher training institutions have not been effective in acquainting their students with the day-to-day problems and realities of classroom instruction. Part of the problem has been movements in education. During the past two decades open schools, team teaching and learning through discovery have each played a role in the decline of teachers teaching understandings and skills prior to expected usage by their students. These movements within themselves were not the problem. Those responsible for teacher education began to establish the role of teachers as that of being a learning facilitator. Teachers were not expected to teach. The new role was diagnosis of learning needs, prescribing

activities based on needs and facilitating the learning process while children were expected to learn by discovery without formal teaching.

The process of teachers assigning learning tasks to students without having taught prerequisite understandings and skills is so widespread and ingrained as to make a large percentage of today's teaching ineffective.

During the 1960s and 70s our teacher training schools were actually teaching teachers not to teach. Persons with newly acquired credentials knew nothing about what goes on in classrooms. To get an understanding of and gain entry level experiences, individuals entering the profession served a three or four year apprenticeship. The education and development of persons with entry level skills required four years college work and three or four years on the job.

A need exists to bring teacher training nearer to the location where extensive firsthand experiences can be provided. Teacher training institutions, as they exist, do not represent the best experiences available nor surroundings in which the experiences should unfold. There should be a marriage between two-year community colleges and school systems to provide appropriate teacher education programs and experiences. Other four-year institutions could become a part of this effort by providing a liberal arts program in conjunction with a school system's final two years of work with prospective teachers.

Change in the pattern for delivery of teacher training is political. The establishment would fight any serious movement in this direction. However, it is a critical need in the public's interest. Without federal leadership and assistance, this unsatisfactory situation will continue to exist.

Prospective teachers would enter the third year of their education in a school as an aide. During the two years, if successfully completed,

they would proceed from aide to paraprofessional to certified teacher. Weaknesses observed could be remediated with unsuccessful individuals being encouraged to discontinue work toward a degree in education.

Funds should be made available and encouragement should be given to school systems and colleges to experiment with this concept.

Post Mortem

Education cannot be adequately supported by local and state taxation. The federal government has to be involved in funding educational programs in a meaningful way. Withdrawal of support by Washington would cause the nation's school systems to collapse. Education would again be available only to the wealthy and well-to-do. Federal leadership and aid to education is needed and necessary for continued success to school programs. If there is any doubt about the need for federal assistance, look around in your local setting. Think about the things local schools would have to do without if federal dollars were not involved. Your observation of the situation probably includes facilities, programs, people, resources, materials and equipment. It might be fun to do a ministudy of what would happen if all federal programs and assistance vanished. It would be interesting to see what would remain. Would there be half empty buildings? Would there be any buildings left at all? Would local school staffs have a number of significant and crucial personnel vacancies? Which materials, games, books and equipment would remain? Answers to the above set of questions clearly indicate that federal involvement in education is quite extensive and will continue to increase as schools try to work with problems of concern to the nation's interest.

Federal Involvement in School Improvement

Dr. Anne Campbell, Commissioner of Education, State of Nebraska

Greatly increased federal funds for education have lead to increased federal requirements, but the resulting advantages to students outweigh objectionable requirements.

Key Points: There was **minimal federal involvement** in education **prior to 1965**, a **doubling** of federal effort **in 1965**, a **constant growth** of actual federal dollars **since** then, but a stabilizing of its proportionate commitment.

Today, the Office of Education administers over 120 separate programs which pro-provide about $12.5 billion of federal aid to education

While the **intent of federal regulations** is to be **informative, instructive and interpretive** to avoid violation of law and audit exceptions, the **actual effect** has been to **unduly restrict LEAs and SEAs** in application in meeting needs of students who are not only diverse but in settings which are also diverse.

Requirements for maintaining local and state school budgets at least at the same level for specific programs from year to year is intended to **insure that federal funds are not used as a substitute for state and local money.** However, the result may be a certain **loss of flexibility and decision making capacity** when a district or state suffers unusual revenue losses.

Examples of **overly restrictive regulations** include:

Overkill in resticting such activities as father-daughter banquets in enforcement of Title IX of ESEA.

Insistance that all handicapped children be "appropriately" mainstreamed into regular classrooms, and requirements for individual education plans in P.L. 94-142 (the Education for All Handicapped Children Act).

Examples of **benefits to students** as a result of federal funding:

Over 60 million disadvantaged students have received additional educational programs under ESEA Title I; evaluation suggests students are making 12 months of gain in reading skills for each 7 months of instruction.

More than 523,000 migrant students are being helped with federal funds.

Each dollar of federal funds has generated over $8 of state and local money for vocational programs.

Over 800,000 adults enroll annually in Adult Basic Education courses.

One in four post secondary students (almost 2 million) receive Basic Educational Opportunity grants annually.

About 159 million books have been purchased for school libraries under the Library Services and Construction Act – an average of about 10,000 books for each school library in the country.

The **judicial branch of** government – rather than Congress or the executive branch – **initiates** a large part of the **federal requirements for** education.

For the **future** we can assume:

The amount of federal dollars will **continue to grow slowly,** remaining at about 8 percent of the federal budget.

Current **interest in tax reform** and spending limitations will intensify.

Interest in a balanced federal budget will continue the fiscal conservative trend.

Suspicion of all kinds of **institutions** will continue to grow.

People will continue to be **concerned** about **federal control of education.**

Recommendations: New legislation should be sponsored and actively promoted which provides the resources whild, at the same time, is structured to make minimal demands and establishes minimal rules.

Year round employment emphasizing professional development should be encourged in a combination of higher education teaching/research and teacher/principal, teacher/parent, teacher/student developed strategies to bring more improvement and sustained reform to schooling than the present method of trying to mold diverse adults to diverse student needs.

The "extension" model and the "true" professionalization of teaching is needed to accomplish desired goals.

FEDERAL INVOLVEMENT IN SCHOOL IMPROVEMENT

Dr. Anne Campbell, Commissioner of Education,
State of Nebraska

Because of the enactment of the Elementary and Secondary Education Act of 1965, the federal dollar contributed to public education has grown from $775 million to over $3.5 billion.

Prior to 1965, federal involvement in education, so far as funding is concerned, had been relatively minor--although the federal government's length of involvement predates the Constitution. The Land Grant Colleges Act of 1737 initiated federal aid to state and local governments. That first effort was followed 75 years later, in 1862, by the Morrill Act. In 1917 the Smith-Hughes Act initiated federal funding for the promotion and development of vocational education.

These efforts notwithstanding, the total federal budget for education from all sources was about $899 million the year before funds became available under the Elementary Secondary Education Act of 1965.

By contrast, the 1965-66 federal budget had jumped to $2 billion! Nineteen sixty-five was a banner year for legislation creating federal educational programs. In addition to the Elementary and Secondary Education Act, that same Congress also passed the Adult Education Act of 1965 and the Higher Education Act of 1965.

Today, the Office of Education administers over 120 separate programs which provide about $12.5 billion of federal aid to education. In the 1965 budget the percentage of federal expenditures for education rose from 4.4 percent of all funds spent for education to 7.9 percent. In 1920, the federal government contributed 0.3 percent; the states, on the average, 16.5 percent and local governments average 83.2 percent of all funds spent on education.

In 1976, the federal contribution stood at 8.0 percent, the average state contribution had risen to 43.7 percent and the average local contribution for the first time in history had dropped below 50 percent to 48.4 percent.

So, we see minimal federal involvement prior to 1965, a doubling of federal effort in 1965, a constant growth of actual federal dollars since then, but a stabilizing of its proportionate commitment.

The availability of federal funds has not been without some sacrifice on the part of states and school districts. The document which contains the compilation of all federal regulations has more than tripled since 1972. And there is no question that they are often too complex, unnecessarily detailed and, in some instances, incomprehensible.

While the intent of the regulations may be intended to be informative, instructive and interpretive to avoid violation of law and audit exceptions, the actual effect has been to unduly restrict LEAs and SEAs in application in meeting needs of students who are not only diverse, but in settings which are also diverse. In the attempt to measure and evaluate like criteria, it may or may not produce desired results. The intent is desirable, but the implementation may require new strategies.

Most federal laws require that local and state school budgets be maintained at least at the same level for specific programs from year to year. That requirement may lead to a certain loss of flexibility and decision making capacity. If a school district or a state suffers unusual revenue losses, the level of commitment or programming cannot be reduced in a particular area if they wish to continue to receive federal funds. Agreed, the intent of this requirement is also laudable. The purpose is to insure that federal funds are not used as a substitute for local and/or

state funds, thereby allowing a reduction of effort by state and local governments.

Looking at Title IX of ESEA, not all agencies view the requirements either as necessary or desirable. Activities such as father-daughter banquets, boys' leagues, girls' chorus and boys' chorus have been challenged. The requirement, however, has resulted in significant changes in curricular materials, the availability of certain courses to both boys and girls and the involvement of girls in what had previously been considered exclusively male sports. But it may be that "overkill" has served to disadvantage participants and result in undesired outcomes.

P.L. 94-142, the Education for All Handicapped Children Act, is another example of federal involvement which carries with it significant federal requirements. In addition to insisting that all handicapped children be "appropriately" mainstreamed into regular classrooms, the law requires that each child must have an individual education plan (IEP) and further requires that local and state governments must provide the majority of the funds to carry out the federal mandates. There is also a penalty imposed upon states that have not perceived and acted upon the needs of children with handicaps and those forced by federal mandate to address the problem. The federal government has been unable (perhaps, refused) to deal with this issue. Likewise, there has been a distinguishable lack of attention as to which agency or agencies have responsibility to provide "support or related" services to the individual "education" program. Top down strategies unquestionably help some of the children, but bring counterproductive measures to other children.

Over 60 million disadvantaged students have received additional educational programs under Title I designed to overcome educational deficiencies brought on by their economic disadvantagement. And it seems to

be making a difference! The last Title I evaluation suggests 12 months of gain in reading skills for each 7 months of instruction. Likewise, we should not forget that over 523,000 migrant students--young people whose educational attainment suffers severely as a result of moving frequently from school to school, days lost due to travel and lack of continuity in their educational program as well as language deficiences--are being helped annually due to the availability of federal funds for migrant students. Progress is being made.

One dollar of federal funds has generated over 8 dollars of state and local money for vocational programs. Annually over 15 million young people enroll in at least one vocational course or program, opportunities they might not otherwise have without federal funds.

Further, over 800,000 of our adult neighbors enroll annually in Adult Basic Education courses.

Almost 2 million postsecondary education students, fully 1 in 4, receive Basic Educational Opportunity grants annually. A high percentage of these students would never have had the opportunity to go to college if it were not for the availability of the federal funds. Over 1 million of those postsecondary students are able to secure a loan each year to allow them to go on to college--loans which would not be available from lending institutions if it weren't for the fact that the loan is federally guaranteed. At the same time, students from low middle class and upper middle class have experienced increasing strain and stress in their pursuit of postsecondary educational opportunities.

Federal funds have been used to buy about 159 million books for school libraries under the provisions of the Library Services and Construction Act--an average of about 10,000 books for each school library in the country.

Each year about 1,000 school districts which are struggling with the issue of school desegregation, receive federal funds to help in that effort. And this is an appropriate time to make a very important point--a large part of the federal requirements are not initiated by the administration or by Congress, but by the judicial branch of government. Consequently, Brown vs. the Board of Education, Seranno vs. Priest and Lau vs. Nichols are all landmark judicial decisions which either directly or indirectly have lead to increased federal requirements on state and local educational systems.

Undiscussed, but also important, are programs such as Indian Education, Career Education, Consumer Education, Community Schools, College Work Study, Follow Through, Ethnic Heritage and Environmental Education. Literally millions of children, youth and adults have been assisted with federal funds. Granted those funds have lead to increased federal requirements. However, the question we need to ask ourselves is "Do the advantages to students served, despite the federal requirements which must be accepted or at least tolerated, outweigh the disadvantages of students being unserved if programs are rejected because of those requirements?" and "Is there a way that the federal government can decrease its requirements when evidence is available to make withdrawal feasible?"

The amount of federal funding for education is contingent upon the current economic situation. We can assume that:

1. The amount of federal dollars will continue to grow slowly, but the percentage of total educational expenditures represented by federal dollars--about 8 percent--will remain fairly constant.

2. The current interest in tax reform property tax spending limitations and state taxing will grow in intensity over the next few years.

3. The interest in a balanced federal budget will continue to make federal lawmakers more fiscally conservative.

4. The suspicion of Americans towards institutions of all kinds will continue into the future.

5. The American people will continue to have a deep concern over the possibility of federal control of American education.

To assume state and local governments would provide additional resources if federal funds were eliminated or curtailed is perhaps unrealistic unless the access to funds preempted by the federal government are returned to the states through an equalizing formula and a state plan for accomplishing improvement and reform. Finally, we can sponsor and actively promote new legislation which provides the resources while, at the same time, is structured in such a way as to make minimal demands and establish minimal rules.

Improvement in education is generally effected when teachers and building-based administrators and other personnel are involved at that level. Encouragement for year round employment emphasizing professional development in a combination of higher education teaching/research and teacher/principal, teacher/parent, teacher/student developed strategies might bring more improvement and sustained reform to schooling than the present method of trying to mold diverse adults to diverse student needs. Research, it does appear, needs the transitional theory to practice base. One should not discount the importance and need for continuance of theoretical and conceptual research, but until the "extension" model and the "true" professionalization of teaching takes place, few other remedies and/or critiques will accomplish desired goals. Teachers (elementary/secondary) and professors (teachers and researchers) need rewards. As long as they struggle to live, their occupation is semi- or quasi-professional. How do we make education a year round profession? It might be well to study organization and configuration concepts that will

allow time and effort for those who perform the schooling process and the educational experience to continue development in a complex multifactored, multifaceted vocation. Obviously a person cannot survive constant teacher/pupil contact (interesting that parents use school baby sitting, etc. for relief). School plans and use of facilities might accommodate a new scheme.

To assume that the federal government can perform all miracles is at best questionable. Federal/state/local partnerships might better result in improvement in educational processes.

A "break" in relationships was made when individual state plans for Title II, ESEA and Basic Skills were given recognition and credence. If an IEP is good for an exceptional student, why would it not be good for individual state plans, as well as individual local plans?

The over simplified presentation of previous statements is not intended to be facetious or necessarily critical of well intentioned and needed actions undertaken at the federal level, but is presented for consideration and debate for a progression that perhaps needs to follow.

Federal Involvement in School Improvement: A District Superintendent's Point of View

Dr. Ruth B. Love, Superintendent, Oakland School District, California

With all of our attendant helpers, the human, technical and financial resources must be gathered together to develop a grand design for the education of our nation's youth. It is imperative to remember that people who care make the difference in education, rather than gadgets and machines.

Key Points: **Federal funding**, which recognizes the special needs of minority children, children from disadvantaged environments and handicapped children, has and is **making a significant contribution to our entire educational system.**

Infusion of **federal dollars** keeps vital educational programs functioning while **providing local school districts** with the **momentum and experience to strengthen base programs.**

However, we face **complex factors** which have **taken their toll on America's faith in education** – lower test scores, lack of job skills, rising costs.

Educators **create** some of the **factors:**

- Low expectations for poor children
- Belief in the intellectual inferiority of minority or poor children
- Too much flexibility
- Irrelevant and unstimulating curriculum

Many federally funded **activities** have **failed** because they were **not** really "**programs,**" **but** were **people and equipment without a philosophical base.**

Legislators must understand that while **education may seem expensive, wholesale economies in education** will only **result** in **greater social expenditures** at a later date.

Staff development programs are **needed** to insure that **teachers recognize their important role** as key members of a committed and skilled vanguard that can produce worthwhile and lasting changes for today's youth.

Federal funding could provide a **commitment** to **improving** the **calibre of educators** as great as the commitment to improving students' academic achievement levels.

Recommendations: A system of advance funding, on a three to five-year cycle, could be instituted by Congress.

The motto for federal involvement in the educational process should be "Simplify and Centralize." It should apply to three critical areas: funding logistics, duplication of effort and organizational management.

Specific consideration should be given to activities and programs which would strengthen the family as a unit.

Federal funding should also promote more program emphasis on females in education.

Criteria should be developed and disseminated for proven effective programs through federal funding.

Two distinct federal appropriations should be made, the first to keep pace with rising inflation and the second to fund program expansion.

FEDERAL INVOLVEMENT IN SCHOOL IMPROVEMENT: A DISTRICT SUPERINTENDENT'S POINT OF VIEW

Dr. Ruth B. Love, Superintendent,
Oakland School District, California

In 1965, there was no Alaskan pipeline, no energy crisis, no threat of Skylab tumbling to earth.

There was, however, something which was destined to have an impact on the American educational system.

It was fourteen years ago that Congress passed the Elementary and Secondary Education Act, which was the largest program of federal aid to elementary and secondary education in history.

Many concepts from ESEA have been developed into viable programs and practices, and today, federally funded programs continue to work to meet the challenge of change in education.

The concept of paraprofessionals in education grew from ESEA and now teacher aides and tutors are commmonplace in providing assistance in the educational process.

Resource teachers and specialists, learning centers, language art and math labs, multicultural curriculum and individualized instruction are practices which are benefiting many students.

Compensatory education provided the impetus toward bilingual/bicultural educational programs and the emphasis across the nation upon parental involvement stemmed from ESEA and OEO.

In addition, federal monies have been an important force in underscoring the importance of preschool education, and in making such programs available to the urban poor and others.

These are but a few of the contributions which ESEA and compensatory education programs have given us.

There should be no doubt that these concepts, the funding, the people and the programs have helped our educational system respond to the challenge of change.

Federal funding, which recognizes the special needs of minority children, children from disadvantaged environments and handicapped children, has and is making a significant contribution to our entire educational system.

And despite the red tape in which we too often find ourselves entangled, there should be no doubt that federal policies, in general, have had a beneficial impact on education.

The infusion of federal dollars has gained added importance as a means of keeping vital educational programs functioning while providing local school districts with the momentum and experience to strengthen base programs.

But personally and professionally, after having suggested guidelines, written regulations, funded projects, administered programs and, in general, having been a part of the entire effort, I am deeply concerned about the future of federal funding.

Beginning with the Northwest Ordinance and throughout most of our history, Americans have demonstrated an abiding faith in education as the key to success, both for the individual and for our society.

As we come to the close of the 1970s, however, and as we face a new decade, a myriad of complex factors seem to have taken their toll on this faith.

For many Americans, their faith in education is being tested, if not shaken.

There are few, if any, educators or parents who are not alarmed by the declining performance of our nation's youth on standardized tests.

Employers are concerned that graduates lack the skills necessary on the job.

Taxpayers are concerned that while the cost of education seems to increase, the quality of education seems to decrease.

And without realizing their own responsibility in the educational process, nor acknowledging the profound effect that this establishment can have on their own lives, some Americans are either apathetic or even openly hostile towards public education.

There can be little doubt that the educational establishment is facing serious challenges--the voucher plan, declining enrollment, loss of local control, employee demands for higher salaries, negative publicity about schools in general and the need to operate on a kind of "crisis management."

Yet schools only reflect the social climate in which they exist, and each year the legal, financial and societal barriers seem to grow.

Included in the formidable array of opposing forces are many factors--shrinking municipal tax bases, inflation, economic insecurity and unemployment--which also are affecting our student's lives.

These factors make it inevitable that society's problems will spill over into the schools, affecting everything from the quality of classroom instruction to the rising incidents of violence and vandalism.

As educators, we also must confront the problems which are of our own making:

- Low expectations of poor children
- Belief in the intellectual inferiority of minority or poor children
- Too much flexibility
- Irrelevant and unstimulating curriculum

In addition, those in leadership roles in education, for too long, have backed away from defining what is expected, and of whom.

I believe that our experiences over the last decade have affirmed two important assumptions that must be at the foundation of American education.

First, a critical attitude for success in any educational endeavor is a firm belief that most children can learn. Unless we expect children to learn, and unless we teach to them as though they will learn, nothing will happen.

Second, unless educators really believe in the distribution of intellectual ability, regardless of ethnic or economic background, no amount of legislation or magical programming will make a difference.

Unfortunately, far too many people do not share these attitudes.

Instead, some believe there is something inherently wrong with a youngster who comes from a poor family, whether black or white, who speaks another language at home or whose parents are on welfare.

As long as these attitudes persist, no amount of money will make any program successful.

No government program, or any program for that matter, runs quite as efficiently or as smoothly as the architect envisions, and many activities have failed because they were not really "programs," but were people and equipment without a philosophical base.

However influential these factors are, I believe it is possible to halt the erosion of confidence in the educational system and begin reversing that trend.

This is not the time for depression or defensiveness.

It is, instead, the time to restructure our priorities so that in this affluent nation of ours, quality of education and equal education become a reality for all children.

We need everyone's help to accomplish our mission and we should feel no embarrassment or hesitation in asking for help.

Educators must "take our case to the people," seek political alliances and utilize private sector relationships, not to become political figures, but to speak as educational leaders in the frankest terms about what is needed to successfully educate our children.

People across the nation--parents, teachers, students, boards of education, superintendents and even people without children of their own in school--must recognize and support education.

Legislators must understand that while education may seem expensive, wholesale economies in education will only result in far greater social expenditures at a later date.

Placing this priority on education presents a significant challenge, and it has become increasingly clear that the support of the federal government is critical to education.

In fact, without the support of the federal government, the future of education looks grim indeed.

With all of our attendant helpers, the human, technical and financial resources must be gathered together to develop a grand design for the education of our nati 's youth.

And although educators and schools cannot make up for all of the inadequacies from which some children suffer, we must do our best to give them what they need in order to learn, from good teachers and textbooks to nutritious meals and psychological counseling.

The help of the federal government is needed to provide children with an effective education, an education which will allow them to discover their own potentials and to pursue them successfully.

While many issues plague the educational establishment, other factors are at work which are impeding progress at the federal level.

First, and in general, my motto for federal involvement in the educational process would be: SIMPLIFY AND CENTRALIZE.

This motto would apply to three critical areas:

- o Funding logistics
- o Duplication of effort
- o Organizational management

The logistics of federal funding, the calendars and scheduling, are unequal and, therefore, cumbersome.

On a federal level, programs often are developed as though there were no other similar programs. We need not reinvent the education wheel with each new program.

An effective organizational management system also is needed on the federal level.

Another critical area is that of paperwork. Again, the motto of SIMPLIFY AND CENTRALIZE would apply to this issue.

Regulations could and should be enacted to reduce the amount of paperwork which, in turn, would allow us more time for important instructional tasks.

It has been said of the American people that it is easier to get our attention focused on a problem than it is to get us to solve it.

But now that our attention is focused on education, let us review the kinds of action which would help us to solve our educational concerns.

First, it is imperative to remember that people make the difference in education, not gadgets or machines, but people who care, are competent and believe in the dignity and worth of each child.

While governments can set educational policies and school districts can develop programs, it is the classroom teacher who brings these policies and programs alive in the classroom.

Teachers are, indeed, the vital link between programs and pupils.

The success of educational programs lies, in large part, within a teacher's ability to assess student needs and continually monitor and expand the student's progress.

A teacher's creativity and flexibility, along with an ability to maintain a student's interest, are key ingredients to a student's successful school career.

Staff development programs, therefore, are needed to insure that teachers recognize their important role as key members of a committe and skilled vanguard that can produce worthwhile and lasting change for today's youth. Teachers need the support and assistance of a cadre of persons who recognize what it takes to deliver effectively in the classroom, and who view their role as a significant enabler.

Staff development programs also are necessary to make a solid contribution to leadership development in our educational system. Today's educational system involves a myriad of complex issues and a top rate team is needed to move aggressively on a wide range of issues.

Effective staff development, along with teacher training programs instituted at colleges and universities, could help educators to meet the challenge of change.

Setting realistic guidelines regarding federal funding is an area which deserves attention. There should not be so many requirements that local staff spends more time interpreting and meeting those requirements than is spent focusing in on direct support to school site personnel and students.

Federal guidelines and regulations should, but too often do not, take into account that local programs exist which must interface with new federal projects. Local school districts should be permitted, and in fact encouraged, to modify or develop programs which will meet their own unique needs.

A system of advance funding, on a three to five year cycle, could be instituted by Congress.

In lieu of specific program requirements, the federal government could move to an "output" mode of operation (thereby requiring certain kinds of results), rather than the current input mode of operation.

In addition, federal program officers should be employed who are familiar with and experienced in local school district program and management areas.

While a list of desirable programs would require a thousand pages, it is clear that the student's total needs should be considered in order for federal programs to be effective.

Nationwide, we know that federally funded programs which have been the most successful are those creative enough to provide the resources, instruction and services to meet a wide range of student needs.

Whether a student can see or hear adequately, has other unattended medical problems, or whether he or she comes to school hungry, all of these factors work against learning.

Extended day programs, additional help in particular areas of deficiency and reinforcement from home are programs which can, added together, comprise a truly comprehensive program.

Along with the special relationship which has existed between Americans and public education, the natural partnership between parents and schools should be strengthened.

Specific consideration should be given to activities and programs which would strengthen the family as a unit; attention to this area could aid immeasurably in improving both the quality of life and the quality of education in our country.

As I mentioned earlier, for too long educators have backed away from defining what is expected and of whom. Programs which usurp all parental responsibility should be discontinued and replaced with programs and activities which help parents to understand their responsibilities, as well as their rights.

Federal funding also should promote more program emphasis on females in education--female students and female staff members. The federal government could serve the nation well by establishing criteria for curricula to include women and minorities.

The multitude of barriers which have blunted women's progress is historical--attitude, culture, stereotypes, bias, training, family obligations and education.

And while there is a growing awareness of women's contributions, females continue to face formidable obstacles as we pursue the goals of freedom and opportunity upon which this nation was built. Federally funded programs could help to insure that females are given full and equal opportunity to discover their own aptitudes and cultivate their own abilities.

Criteria should be developed and disseminated for proven-effective programs through federal funding. A more cohesive network of educators, using the tremendous talent we have available across this nation, is urgently needed to share these effective programs.

And once again, we need not reinvent the educational wheel with each new program. Rather, funding should be provided for the replication and modification of existing effective programs.

Funding also should be provided to insure that once these effective programs have been implemented, parents, students, teachers and others involved in the educational process are aware of such programs. The initiative must be taken to disseminate positive aspects of our schools so that people can be supportive and proud of our accomplishments.

Too often school districts have been required to apply criteria which, in effect, say that educational needs begin and end abruptly when students score below some specified level on an achievement test.

Many students who manage to score slightly above the cut off lose their supplemental support and as a result, some of these students may never reach their full potential.

There is a definite need for some provision which allows for the continuity of a program when youngsters begin to achieve, and the concept of an educational achievement maintenance level should be included in federal funding.

Two distinct appropriations also should be made with regard to federal funding for education, the first to keep pace with rising inflation and the second to fund program expansion.

No one knows better than educators that the forces of inertia and negativism about education are a powerful reality, nor how many obstacles there are in meeting the challenge in today's public schools.

We must face these issues squarely and we must be truthful about the need for educational reform.

How best can we improve, with the help of federal funding, the educational opportunities for our students?

One positive trend is the recognition of the close relationship between schools and the community with regard to grant funding.

In cooperation with community organizations, local school districts are becoming involved in the "joint approach" to grant applications with positive results for both.

First, the application process itself can help to bring the two organizations closer together.

Second, this cooperative approach can help both schools and communities to solve problems which are shared by both groups.

We also must be careful to remember that any program must speak to the real needs of students. Ongoing programs and activities which are designed to be absorbed by the private sector after a reasonable period of funding must be developed.

Programs which recognize and reward success should be implemented. "Specialty schools"--schools in which exceptional achievement in various aspects of the curriculum is being accomplished--should be identified, supported and given the capacity to serve as demonstration centers for students and staff.

Staff development and teacher training programs can help educators turn our challenges into achievement.

Federal funding could provide a commitment to improving the calibre of educators as great as our commitment to improving our students' academic achievement levels; there is no question that the two are intertwined.

Relationships with local colleges and universities should be developed to better tap and harness the instructional talent which too frequently is kept sequestered in those ivory towers.

Programs which focus on positive leadership should involve both certificated and classified management staff in instructional activities at the school site. Through such activities, individual's areas of expertise can be matched with the school site's request for assistance.

There is an obvious need to recreate, for many, a sense of mutual involvement in the educational process. The formulation of partnership programs involving the school, teacher, parent and student is a concept whose time has come.

Designed to bring together the crucial partners in education, partnership programs can help everyone acknowledge and share in the educational process.

In conclusion, I think you will agree that education and educators are facing a crisis in confidence.

Our critics have grown in number and it is clear that we are faced with tremendous challenges.

But I believe we can reverse this trend, with the help of the federal government, and turn our challenges into achievements.

How?

Educators must begin to take the time to tell the public about the remarkable strengths and accomplishments of our educational system.

We also must be honest about the flaws in our system; we must tell the public about our weaknesses.

We must not allow apathy or hostility to undermine our efforts and we must not allow factors to become excuses for failure.

Our actions must focus on helping others to acknowledge and to participate in their share of the educational process.

As educators, we must set the highest possible standards for our own performances. We must have the courage and the faith to expect the same levels of accomplishment from others.

We must treat others as equal partners in education, and we all must recognize our accompanying rights and responsibilities.

We must seek out and build new partnerships, and we must prove to others that we want their support and that they, in turn, can benefit from our accomplishments.

We must review and, if necessary, redesign our thinking about ourselves and others.

We must demonstrate, through our personal actions and our professional decisions, that we recognize and respect our differences.

An effort of this magnitude is neither lightly undertaken, nor easily accomplished.

But our alternatives are not attractive.

While energy may be today's popular issue, the fate of our schools holds perhaps even greater consequences for our society.

If we turn out the light in the children of our cities, we may not need the energy to light the cities themselves.

Improving Educational Practice Through Strengthening Ties Between Networks and Directed Development Efforts

Dr. Rex Hagans, Director, Instructional Improvement Division, Northwest Regional Educational Laboratory, Portland, Oregon

R&D products for educational improvement result from a process of "directed development." These product development networks are "nested" within larger networks of common concern (issue networks) and depend on ties to both geo-geographic and special interest networks.

Key Points: The **directed process development consists of four general phases:** (1) identification of a significant need area, (2) analysis of potential problem solution, (3) design and testing of one or more solution strategies and (4) dissemination of the products and processes which result.

The process of **linking networking to directed development** lies in its integrity as an **integrated process.**

Networking is **more than a vehicle for dissemination.** External networks become a means by which it is possible to **assure** that both ultimate **use and high standstandards** of improved practice and equity are achieved.

The extent to which an **alternative** problem solution or "product" being considered is **drawn from** among one or more of the alternative **solutions seen as potentially powerful** by the relevant **issue networks** will be critical in its ultimate utility.

It is important that **developers do more than simply draw advice from network representatives.** They must "plug" their development intentions directly into these networks' bubbling pot of discussion and debate before the particular solution strategy is too far into the design stage for ownership and advocacy by "influentials" from among the user groups...to **be seen as directly relevant to identified needs** and **provide initial raw material for the embryonic product network.**

Another critical element to effectiveness of directed development is the extent the intermediate agency conducting development can **build in provisions** for help or create a **support structure** which is broad based **in membership and permanent institutional roles for providing continuing training and technical assistance.**

Only if special interest **networks achieve a full partnership** status in the **directed development** strategy is there a strong likelihood that such an effort will be fully sensitive to its equity impact.

A need may be significant and yet not require a federal investment for collaborative effort because it does not exist across a broad segment of the nation. Directed development is appropriate when there is a **common intersection of needs from several issue networks.**

Timing is of great importance; if a directed development effort begins **too early** in the life of an issue network, it may **not be able to recognize the network sufficiently to "ask" it about potential problem solutions;** if **too late,** it may find its particular

solution strategies viewed as **in "competition" with other existing efforts** having the sanction of the network members.

Linking with **geographic networks in the testing stage** makes it possible to **build** specific "product network" **support functions** to "nest" within the network, just as the **outcomes "nest" within the issue and special interest networks.**

Steps for involvement of geographic networks: (1) **make visible** to them the **intent** to create a product network as a means to improve practice before and only if the product is successfully validated and (2) **specify roles** to be played in all phases of dissemination.

Recommendations: Mandate networking and product network building for all collaborative federal-regional directed development efforts.

Support research about the life-stages, boundaries and dynamics of issue and special interest networks.

Encourage the involvement of networks in the process of validating products and practices from directed development efforts.

Provide direct support for the building of product networks.

Provide direct support and encouragement for directed development efforts to nurture the growth of the broader products and issue networks within which their product networks will function.

Conduct more action research on the processes of implementation, with particular emphasis on reconciling the various federal and local perspectives in the context of a specific development effort.

IMPROVING EDUCATIONAL PRACTICE THROUGH STRENGTHENING TIES BETWEEN NETWORKS AND DIRECTED DEVELOPMENT EFFORTS

Dr. Rex Hagans, Director, Division of Instructional Improvement,
Northwest Regional Educational Laboratory

The outputs of R&D agencies such as educational laboratories and research and development centers are one of the primary sources of R&D products available to the nation's schools. Many of these products are a result of a process which has been called "directed development." One major form of the process for conducting the full cycle of development work involves collaborative decision making between these research and development agencies and such federal agencies as the National Institute of Education. This approach to educational improvement has been the subject of much discussion and debate, particularly its ultimate impact and effectiveness. Lois-ellin Datta[1] has prepared a detailed and thoughtful analysis and concludes that "it is time to drop citations of the Rand study as if the data were compelling arguments against systematic change, well-developed curricula, technical expertise, targeted demonstration programs, government support to fill resource gaps to achieve renewal and reform or top-down directed development,"[2] and that "the Rand study and the challenges to an earlier faith in a simpler version of directed development and change have contributed both (emphasis the author's) to the evolution of local problem-solving approaches and to probably more effective ways to use other strategies."[3] These other strategies for networking and directed development are the focus of this paper. It contends that

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[1]Datta, Lois-ellin. "Damn the Experts and Full Speed Ahead: An Examination of the Cases Against Directed Development and for Local Problem-Solving," 1978. (Unpublished).

combining the growing "science" of networking with the evolving process of directed development offers one area of great promise for the improvement of educational practice.

It is important to note that directed development, as the term is being used here, is a process, not simply a product. The goal is clearly a validated practice that results from a process of identification of a significant need area, analyses of a series of potential solution strategies, design and testing of one or more of these strategies and dissemination of the outputs. This is not true of all directed development efforts as they are seen by Dr. Datta. Her excellent description is based upon the validated practice as the key descriptor and thus allows for inclusion of practices developed outside the collaborative process between regional and federal agencies which is the focus here. The author does not disagree with that particular view, nor find it conflicting. However, it does seem to the author that the real power of linking networking to directed development lies in its integrity as an integrated process. Just as evaluation is clearly part of directed development from start (planning) to finish (use of the product or program), networking is (or should be) much more than simply a vehicle for dissemination or "getting the product out." Properly understood and supported, the various "external networks" (geographical, common interest, special interest) become the means to assure that both ultimate use and high standards of improved practice and equity are achieved. Just as has been the case with evaluation, it is this understanding and support which must continue to evolve if directed development is to make its appropriate contribution to improvement of practice. And just as has been the case with evaluation, it is in the unique partnership among federal, regional and local agencies that it has its best chance of evolving rapidly and effectively as a broad force.

Section I: The Relationship of Directed Development and Product Network Building to Other Types of Networks

R&D agencies currently involved in the directed development process are very much aware that the resulting products and programs represent only part of the full set of solution strategies available within larger problem arenas. It is the author's belief that these large problem arenas spawn "issue networks" based on communities of interest.

These "macro networks" spring up in large problem areas which pose substantial challenges to our educational system and/or which represent large unmet needs in our society where education is at least one key element. They are strongly "solution oriented" and typically are composed of a shifting alliance or configuration of more specific networks or parts of networks. A product or program network can become one of these, a kind of "nesting" arrangement. Relationships with others in this "nested set," as well as with the organizing issue of the macro network, become the crucial factor for utilization of the product and ultimate impact upon the improvement of practice.

"Product" networks are seen by the author as rather specifically and consciously created for the ultimate purpose of maximizing the utilization and effectiveness of a given solution strategy. This distinguishes them from the other three types under consideration here. Product networks do share certain common characteristics with the other three types.[4]

1. They all span across two or more established decision making agencies and/or influencing organizations and promote linkage between the agencies and organizations.

2. They all assume that interorganizational cooperation and collaboration will result in greater access for information and resources to improve practice and equity.

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[4]Northwest Regional Educational Laboratory. "Technical Proposal. Interorganizational Arrangements for Collaborative Efforts." Portland, Oregon, 1970.

3. They all assume a collaborative two-way interaction effort between information providers and information users to solve educational problems.

4. Each type is initiated on a voluntary basis. That is, the membership participation is voluntary rather than mandatory.

5. The set of four types recognizes that motivation for school improvement efforts can come from many different types of forces (law, policy, influencing organizations, social action).

6. There is no a priori assumption about formality/informality of rules, network operations, etc.

Placed roughly within Miles' six problem frames or purposes,[5] it appears that issue networks tend to emphasize and attack "higher order" problem frames such as "inequity," "anomie" and "stagnation" which derive a great deal of intensity from the existence of a major unmet need or persistent gap in practice. This predisposes them to be more institutionally cross-cutting in the sense of being attractive to active participation by individuals from a very wide range of agency settings and much more oriented toward actively seeking and advocating innovative solutions. The descriptors used, such as "justice," "energize," "motivate" and "mutual support," seem indicative of this predisposition. Similar "activist" tendencies, with much heavier emphasis on "isolation, resource poverty" problems would characterize special interest networks. Geographic networks, on the other hand, seem to tend toward much greater parallelism to existing institutional structures and to concentrate on more instrumental types of problem frames, such as "unshared crafts" and "backwardness or obsolescence."

If these are indeed the general qualities of the various types of networks, then it follows that effective product networks must be created

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[5] Miles, Matthew, "Networking," 1978. (Unpublished). pp. 9-13.

with the specific intent to draw from all three. For example, a critical factor in ultimate impact on improvement of practice appears at the planning/design stage in directed development. The extent to which the alternative problem solution or "product" being considered is drawn from among one or more of the alternative solutions seen as potentially powerful by the relevant issue networks and/or subnetworks will be critical in its ultimate utilization. Hall and Alford, Berman and McLaughlin, and Fullan and Pomfret, would all hold at least two things in general:

1. Successful program initiation depends upon the existence of a "felt need" by local users.

2. Innovative programs are more likely to succeed when the users themselves select a solution that benefits their felt needs.

Thus, it is very important (and not often enough achieved) that developers do more than simply draw advice from network representatives. They must "plug" their development intentions directly into these networks' bubbling pot of discussion and debate before the particular solution strategy is too far into the design stage for ownership and advocacy by "influentials" from among the ultimate user groups to be possible. This not only assures that many local users from the broader issue network will see the proposed product directly relevant to their identified needs, but if the opportunity is properly recognized, it provides the initial raw material for the embryonic product network. The conditions under which the interpersonal and social influences which Emrick and Peterson have identified as the prime determinant of utilization will have begun to develop.

Another critical element in the ultimate effectiveness of the validated outcomes of directed development is the extent to which the agency conducting the development can build in provisions for help or create a support structure which has a broad base both in terms of network

memberships and in terms of permanent institutional roles appropriate to providing the necessary continuing training and technical assistance. Geographic networks with their strong institutional bases are particularly important to this function and should play a central role in the developing product network. However, if the only links are to issue or special networks, there is a good possibility that the key role of these geographic networks may be overlooked.

As a final example, there is the extremely important question of assuring that directed development efforts contribute to increased educational equity. Here the tie to appropriate special interest networks may be the most crucial and the least likely to occur in forms other than the federal-regional collaboration. When the proposed product or practice is directly addressing an equity need or gap in practice, the advantages of ties between the product development effort and key special interest networks parallel very closely the ties with "issue" networks. The relationship can guarantee "power" for the alternative solutions proposed, provide early information feedback linkages to users and form the nucleus for an eventual product networking effort. The likelihood that the development effort in this situation will tie into the special interest network system is fairly high. However, when the development effort is targeted toward a less obviously equity related issue, the chances of overlooking important interfaces with special interest networks appear to go up rather rapidly. Only if networking achieves its full partnership status in the directed development strategy is there a strong likelihood that such an effort will be fully sensitive to its equity impact.

These instances not only underscore the importance of networking as an integral part of the directed development process, but also illustrate three

potential advantages of the federal-regional-local collaborative approach to directed development. Bottom-up products or practices, even when they have been validated, may have failed to build in relationships with all these other types of networks along the way. They quite consciously could have been plugged into a relevant issue network, but have had only minimal contact with important special interest or geographic networks. At its worst, this could result in a product network strongly advocating an issue solution which is in conflict with related equity concerns and very weak in the support structure which geographic networks can provide. These conditions do not at all necessarily result from the bottom-up approach and they also certainly could result from the federal-regional collaborative approach. However, just as this latter approach seems most likely to produce the attention to evaluation which makes it an integral part of the entire process, it also seems most likely to be capable of producing that kind of attention to networking.

Section II: How Networking Can Become an Integral Part of the Directed Development Process

The directed development process has been described earlier as consisting of four general phases: (1) identification of a significant need area, (2) analyses of potential problem solutions, (3) design and testing of one or more solution strategies and (4) dissemination of the products and/or processes which result. While this is a simplified description of a complex process, it is useful for examining specific interactions which can exist between networking and directed development.

Identification of a Significant Need

The key term here is "significant." A need can be significant at several levels. It is not unusual for social policy research, for example,

to identify or anticipate a need based upon analyses of alternative futures or extrapolation of various trends and their intersection points; individual local communities, caught in the throes of some difficult local social or economic crisis, can have an extremely "significant" or highly localized need; geographic units, with their common political boundaries, often share educational needs given great "significance" by legislative action; groups of people with common characteristics (e.g., a language or culture) different from the predominant one in which they live can and do have very "significant" educational needs. While each of these are significant in a very real sense and all are susceptible to the application of R&D in one or more of the forms suggested by Dr. Datta, they are not necessarily "significant" in terms of either requiring the federal investment necessary for collaborative directed development or of being susceptible to positive impact by collaborative directed development, until they exist in some extensive number of expressions and combinations across a very broad segment of the nation. These are the very conditions which produce "issue and/or special interest" networks. Often directed development efforts have been based entirely upon one "locally" significant need or, conversely, upon a vision of the future apparent to those who have the perspective which immersion in policy research brings with it. In either case, technically and conceptually excellent directed development efforts may well have been doomed to failure because the primary means of effective communication about them was not in existence. That means, which Emrick and Peterson[6] list as the first of their 13 critical dimensions in utilization is: "Identification

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[6]Emrick, John A., and Peterson, Susan. "A Synthesis of Findings Across Five Recent Studies of Educational Dissemination and Change," 1978.

and access to target clients--by means of personal referral networks and informal communication channels existing within the client social system." It is my contention that only the growth of national and regional issue and special interest networks can provide the setting for broad impact. Collaborative directed development can and must recognize this fact at the identification of need stage. Locally based directed development efforts, even if they are an expression of a promising solution, may not be part of these key communication channels and it seems unlikely that this can be remedied entirely. With proper attention, it should be possible to assure that collaborative ones are.

Often the need identification appropriate for directed development is the common intersection of needs from several issue networks. In my own experience (and with the benefit of hindsight), this was the case with Experience Based Career Education. If the central need being addressed there was better means through which young people could more effectively make the transition to adulthood, it was certainly one which was shared by at least four "issue and special interest" networks, each of which had differing purposes of existence: career education, which tended toward improving awareness of careers and the processes of career choice; vocational education, which tended toward improving opportunity for skill development and developing good work habits; youth employment programs, which leaned strongly toward provision of opportunity for acquiring a work orientation and income transfer for disadvantaged youth; and action learning, which placed heavy importance on improving opportunities for volunteerism and service as a means of socialization for all youth. While it would not be entirely accurate to say that EBCE consciously identified and related to all of these throughout the directed development process, it

continually struggled to do so, something that was made possible by the expectations placed upon it as a result of its being a collaborative federal-regional directed development effort. EBCE's rather consistent "reference" to this general need and its expression by members of these different issue networks in the schools is, I believe, a major factor in its broad and continuing utilization as one broad based school improvement strategy. This is reflected in the membership composition and charter of the National Association for Experience Based Career Education, which has become the "capstone" of its product network.

Analysis and Selection of Program Solutions

From the preceding description, the process of identifying the appropriate issue and special interest networks and then fitting in a problem solution may seem simple. Unfortunately, things are not often that neatly arranged. It is quite likely that a need will be part of the "milieu" of more than one issue or special interest network. Different parts of these networks may have mutually exclusive views of appropriate solution strategies. Timing is also of great importance. If a directed development effort begins too early in the life of a given issue network, it may not be able to recognize the network sufficiently to "ask" it about potential problem solutions. On the other hand, the directed development effort may come along very late in the network's life stages, with its particular solution strategies (or the agencies developing them) being viewed as in "competition" with other existing efforts having the sanction of the network members.

Although these conditions complicate the proposed marriage of networking and directed development, they actually strengthen the reasons for it. Issue networks will exist and operate within the same spheres of influence

as school improvement efforts, whether or not those efforts recognize and relate to them. As a result, the collaborative directed development process must take on certain attributes in terms of values and goals which they might not otherwise.

As one example, a directed development effort needs to undertake specific activities (newsletters, conferences, etc.) to nurture emerging issues and special interest networks, even though these activities do not contribute directly to development of the specific solution strategy. Furthermore, nurturance activities targeted toward the broad issue or special interest networks cannot in any way be "sales" of a favored solution strategy. Both the development agency and the federal partner have found this difficult. NIE and USOE have difficulty justifying expenditures on activities which do not contribute directly to production of "the solution." The development agency may find it threatening to provide a forum for ideas or agencies which may be competing for scarce resources. Both of these, in the author's opinion, are shortsighted views, since the "payoff" for both agencies is (or should be) contribution to the improvement of practice, not vindication of any particular wisdom and foresight in always picking "the" correct solution. Realistically, this means that the directed development process must have the means to "flex" after nurturance activities indicate there is a need to adjust and modify plans. This may conflict with the rather slavish adherence to the "experimental model" which has often dominated development work and greatly complicate the "validation" process. It may also mean that a major effort should be stopped at early stages of development, something which is often less than desirable in the eyes of the regional partner.

The directed development effort must make an even more difficult adjustment when well-developed networks already exist. Some may be strongly advocating solution strategies which are in conflict with those of other networks and/or the directed development effort being contemplated. Here again, the directed development effort must "sidetrack" from its traditional concentration on extolling and explicating the value of its proposed solution strategy and concentrate major effort on analysis and adjustment so the strategy can and will complement and support those advocated by the issue network. This is not a trivial exercise; it requires more than a logical analysis and description. It takes the time and effort required to engage in a continuous dialogue with a doubting and even hostile audience and the creativity and openness to modify, adjust or, in some instances, abandon a "good idea" because of its particular interaction with other solutions. This is the essence of why directed development can be very effective in promoting incremental change, but is not likely to be as effective as an agent of "reform." The line is a fine one and can only be drawn on an instance-by-instance basis, as a result of interaction between the partners in collaborative directed development. However, it seems to me the process retains maximum potential for promoting continuing and broad change if attention to the reality of issue and special interest networks becomes a required part of the determination of what is a "significant need."

These problems are not insurmountable. The type of special relationship which exists between NIE and regional laboratories, for example, provides a means for "stopping" efforts without negative effects, either on institutions or the R&D effort as a whole. Technologies are in existence for maintaining rigor in the validation process, even when the "experimental process" is varied along the way. Perhaps most importantly, we are beginning to get much more sophisticated understandings of the interactions

of validation with the processes of implementation,[7] understandings which can shape both the process and the job of directed development in ways which promise to allow us to make it a way to deal with the situation described by Farrar, et al.

> ...and it helps to put in bold contrast the differing views of the R&D enterprise. From the federal perspective, analysts and researchers attempt to add up the local activities against central blueprints and goals; the net result naturally seems like little or nothing. But from the local perspective, there is a rich variety of implementation stories.
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> In local schools most federal programs, like EBCE, become a collection of different partial reforms. But the federal search for a "net result" is really a notion which filters out the variety of local implementation agendas. Thus the local perspective is either overlooked or misunderstood. This helps to explain why federally sponsored studies of implementation of educational reforms are largely end stories of non-implementation. If the stories are told from the local perspective, they would be many and varied, and often would tell of success--at least in local terms.

It is the author's contention that the networks, with their varying levels of concern with action, evidence of validation and support for implementation, provide the ultimate mechanism for evaluating the appropriateness of collaborative directed development efforts. They are the true intermediaries between the federal concern for a "net result" (with its frequent companion cry for "reform") and the varying local perspectives on need (which call for "incremental improvement").

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[7]Farrar, Eleanor; DeSanctis, John; and Cohen, David K. "Alternative Conceptions of Implementation," 1978. Cambridge, Massachusetts: The Huron Institute.

Design and Testing of Solution Strategy

The linkage with networking takes on a new aspect at this stage. This is the conscious linking with geographic networks, so that specific "product network" support functions can be built to "nest" within that network, just as the solutions and hoped for outcomes "nest" within the issue and special interest networks.

Through the stages of need identification and selection of potential solution strategies, geographic networks, with their institutional orientation, have been of secondary importance to the directed development effort. This is not to say that they have not been a real consideration in several senses. For example, it is unlikely that any problem solution will be utilized on a broad basis unless issue or special interest networks include individuals sanctioned by geographic networks. This alone would be sufficient reason for a directed development effort to be modified or even abandoned at these early stages. The relationships between and among different geographic networks (regional government associations, business groups, labor unions) as those networks are represented on a national basis (U.S. government departments, National Alliance of Businessmen, AFL-CIO) is another indication of both the significance of the need and the potential utilization of any given problem solution.

However, as the process moves into the design and testing phase, it is critical that the support functions be specifically and cooperatively planned and designed with the geographic networks which ultimately must deliver them. The relationship with issue and special interest networks continues to be important in this phase as well, because certain support functions which will effect ultimate impact on school improvement will require "fit" with them as well.

The nature of these support functions, the particular configurations of agencies necessary to perform them and the incentives for the agencies to do so vary from one product network to another. For purposes of illustration, however, let me draw upon one of Yin's "Passages"[8] of an innovation as one generalized means for identifying and discussing some of them.

The first "passage" suggested by Yin is transition to local funds. Effective product networks have had to deal with this. Even if initial development of a product was paid for by one locality, adaptation to another requires that the new community support the product's installation and use. Both the legitimation and the mechanisms for such transitions are generally at the center of concern for "geographic" networks. Directed development can go beyond "building in" appropriate cost levels and acceptable variations on standard practices by involvement of these networks at the design stage. It can also create the preconditions for negotiating the other passages: establishment of appropriate organizational status, establishment of a stable arrangement for supply and maintenance, establishment of personnel classifications or certifications, changes in organizational governance and internalization of the training program.

Two general steps appear to be important in involving geographic networks at this stage. First (and perhaps an area where directed development has greatest advantage over other R&D modes) is simply making visible to the appropriate geographic networks the intent to create a product network as a means to impact practice before and only if the product is successfully validated. Second, specific and detailed planning and

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[8]Yin, Robert K., et al. Changing Urban Bureaucracies: How New Practices Get Routinized, 1979. Lexington, Mass.: Lexington Books.

articulation of roles to be played in all the phases of dissemination (spread, exchange, choice and implementation) by the concerned geographic networks, the appropriate issue networks, the projected product network, the sponsoring federal agency and the agency coordinating the development process should begin here.

One way to view the particular configurations of agencies appropriate for a product network is in terms of the match of their "charters" to the necessary functions. It is in this context that the incentives for geographic networks to participate take on their clearest meaning. For example, education agencies are a particular kind of geographic network whose charters encompass many of the passages identified by Yin: establishment of appropriate organizational status, personnel certification, organizational governance and training programs. To assist local school improvement through these means is a key part of their reward system. Obviously, their involvement and support is key to the ultimate utilization and impact of an innovation. Universities and colleges are another geographic network that have "charters" which involve them in key passages, especially personnel certification and training. Teachers' organizations and professional associations such as the National Association of Secondary School Principals and the Association for Supervision and Curriculum Development are examples of other geographic networks which must play a part at the design stage, both by being involved in the communication of intent to create a product network and the specification of appropriate roles in its operation.

Dissemination

It is at the dissemination stage that networking has its most obvious "payoff" for directed development, both collaborative and locally

initiated. Specific linkages to various networks are most easily visualized in terms of the way a product network deals with the dissemination functions of spread, exchange, choice and implementation. Let me cite the examples from the "successful" directed development effort which I know best--Experience Based Career Education (EBCE).

EBCE began its work before these particular dimensions of dissemination had been articulated as clearly as they now are. However, the early conceptualization of the functions to be performed in a state network parallel them quite closely. This was not an accident, but another benefit which EBCE derived from the close collaboration between federal policymakers and regional agencies concerned with effective implementation and utilization of school improvement practices. The following description from an early planning document is helpful in drawing these relationships.

In addition to the match between the stages of dissemination and the functions described, this document touches on the idea of nesting a product network within the context of larger ones. Note the reference to a national EBCE brokerage effort; the awareness of need for coordination with other career education activities at the local level; the "requirement" that the broker understand the place of EBCE in the total state system and the flexibility of the concept in its ability to meet needs in the "arenas of experiential learning, career education, individualized instruction, and so forth"; the identification of "network type" incentives for a state department person, including addition of another way to help districts (geographic) stimulate thinking about experiential learning (issue) and concrete uses for aspects of community based learning (issue); the same types of incentives for local school district participation (being part of a state network); and college staff involvement as a trainer (keeping "up" on current happenings).

Major Issues

NWREL is convinced that a state network for institutionalizing EBCE can become a reality. The reality, however, depends on understanding and dealing with certain issues that are crucial not only to EBCE but probably to the installation of any educational innovation.

Some of the major issues to be addressed are:

1. Coordination and Leadership

   The availability of someone within the state to be responsible for overall coordination of this effort. Without someone designated for this essential role, the various elements of the plan may come "unglued" and fail to function together harmoniously.

2. The identification of individuals within the state who can and want to function effectively and efficiently in the various roles required by a comprehensive state plan. These include:

   Brokerage of EBCE--the capability to:

   a) explain EBCE, including recommending it as a viable means to deliver both career education and general education

   b) provide "psychological" support and encouragement to those who undertake to set up EBCE programs

   c) help districts conduct needs, interest and/or commitment assessment

   d) assist districts in the selection of the EBCE model most suitable for their district

   Planning for EBCE--the capability to assist local schools in preparing for EBCE installation. This includes dealing with issues, such as transportation, insurance, recruitment of employer and community sites, selection of students, staffing, etc.

   EBCE Staff Training--assuring the availability of qualified individuals who are well prepared to train local staff to operate an EBCE program.

   Evaluation--for local, state and national purposes.

   For each of the four items above, the "who" question, then, becomes critical. Each state varies in its structure and will have to

identify individual(s) or groups who can perform these functions in a way which fits their particular set of relationships.

3. The provision of the financial and human resources to:

   a) assure that the identified individuals have the necessary released time to become trained to perform these functions

   b) facilitate the travel necessary to become trained

   c) acquire the necessary support materials

4. The identification of incentives for both individual and institutional participation in such a statewide network.

For purposes of discussion, we will take one state--STATE X--as an example of how this network might be put into operation.

"Brokerage" it can be seen, encompasses the functions of spread and exchange, "planning" has a good deal of similarity to "choice," with "training and evaluation" covering the essentials of "implementation." The document also shows awareness of the incentives issue. It then proceeds into a scenario which describes in more detail the roles, functions and incentives for specific institutionally based individuals in one theoretical state context.

STATE X MODEL FOR INSTITUTIONALIZING EBCE

Brokerage

In this state, the state career education coordinator has been identified as our state broker on the basis of his/her apparent ability and agreement to provide the following services:

- Information sharing/dissemination and promotion. This activity involves explaining EBCE to interested parties, recommending EBCE as a viable means to deliver both career education and general education and providing "psychological" support and encouragement to those looking for options.

  Our state EBCE broker will be responsible for making a number of EBCE presentations at statewide conferences, etc., using existing information resources from the NIE national brokerage effort as a start. A slide/tape loan library, awareness materials, plus a locally developed description of services available within the state also will be provided to local constituents by the state broker.

- Needs, interest and/or commitment assessment. Before the broker can point a local adopter in the right EBCE direction, the adopter

may need specific assistance in decision making: how to identify student, parent and community needs; how to define new state education directions and/or mandates. The ability of the broker to help districts proceed in an orderly fashion in planning for change is critical.

The broker should be able to help match the LEA's perceived goals with those of EBCE and assist the district in adapting the EBCE model to fit these needs.

- Selection of appropriate EBCE model. In helping an agency or district find the model most suitable to local needs, the broker must put the initial analysis of needs/desires into a plan of action. Our knowledgeable broker will be able to help customize local EBCE plans so as to capitalize on the strengths and unique features of the various EBCE models.

  Increasingly, this will involve assisting local schools not only to gain insight and knowledge about the use of EBCE but also to plan for coordination of EBCE with other career education activities in that school or district--both ongoing and those planned for the future.

- How a state broker is selected. The success of state network brokering rests on the commitment of the broker to EBCE and its future. Criteria for selection of this individual in the state are:

  a. Recognizing the potential of EBCE and the place it has in the total state system. EBCE is perceived by the broker as a good way to meet the educational needs of young people within the state; chances are the idea will spread.

  b. Being convinced EBCE has a "touch of the future" and wanting to be on the cutting edge of the innovation.

  c. Seeing the EBCE model as flexible enough to meet educational needs in several arenas--experiential learning, career education, individualized instruction, and so forth, as well as being capable of significant adaptation to specific, local conditions.

  d. Having the commitment of his/her department to all of the above and to being able to devote time to it.

- What are the incentives for this state department person to act as a broker?

  a. Detailed familiarity with a demonstrated successful career education program. It gives our state career education coordinator another tool for helping districts.

b. For state career education meetings and other important planning sessions, it gives him/her a good means for stimulating thinking about the possibilities of experiential learning.

c. He/she has concrete help for local users in many individual aspects of community-based learning activities in general.

Planning

A necessary second component of the EBCE state network is the provision to adopters of installation planning assistance. This includes helping local schools deal with issues such as:

Understanding the EBCE curriculum and how it relates to other in-school offerings

Questions associated with transporting students to community sites; safety while at the site

How to structure community experience to provide for full academic accreditation

One of the best resources for this type of installation planning is the staff of EBCE demonstration sites in this state.

o How a program planner can be trained. There are distinct advantages to using the operational staff of the demonstration site for planning assistance to other schools.

a. The staff will have had enough training and experience to assist other local districts in program planning.

b. There is evidence that "teacher to teacher" training is often both more practical and better accepted than the "expert to teacher" mode.

Before demonstration site staff can be prepared to provide either planning assistance or actual staff training to other schools, the following issues would need to be resolved:

a. How many days per year and during which parts of the year can this staff be relieved of other duties to perform these training functions?

b. What kinds of agreements would have to be agreed upon between the districts whose staff is providing the training and the district receiving it? For example:

1) reimbursement of staff time to pay a substitute

2) scheduling of training activities

3) certification of new staff

4) follow-up assistance, if needed

c. Will the state participate in any way in any of these costs?

d. What is the demonstration site policy regarding time for visits, number of visits and visitors, their role in hosting visitors and the coordination of these events with other aspects of the state network?

o What are the incentives for the local school district which has a demonstration site to offer these services?

a. It builds in a motivation for their staff to be involved in staff development activities so as to improve training skills.

b. The school gains prestige within the state through playing a key role in a growing network of users/adapters.

c. Improved staff performance can be expected--training others makes the staff better at what they do.

Training Local Staff to Operate an EBCE Program

Another essential element of a state network is the development of a cadre of people who are capable of teaching or training in EBCE. These individuals have to:

Be equipped with the tools to teach (i.e., materials, visuals)

Be totally familiar with EBCE techniques

Be in a system in which teacher training is a recognized function

o Who are the individuals within our ideal state who are prepared to provide this type of service? Within the state, professors from the state colleges/universities are in the best position to deliver this training to local schools throughout the state. Therefore, the college and universities will have to:

a. Identify individuals who are interested in this type of activity and designate one or more of them to become "certified" to train in EBCE.

b. Provide released time to these individuals to become trained as trainers.

c. Provide a mechanism that will allow local school personnel

to receive credit while they are being trained to install an EBCE program. The university will determine if this will be:

1) regular class offering

2) pre-service offering

3) in-service course offering

The university staff has a range of choices for the degree of involvement they desire. If they are to train local staff to operate an EBCE program, they will have to go through the entire training cycle which will require 22½ days (see attachment #1 for this cycle).

o What are the incentives for the college or university to get involved?

a. It can strengthen and expand its course offerings in career education.

b. It can provide an additional in-service or pre-service teacher training course.

c. These new classes/offerings in career education may well attract more students for other classes.

d. EBCE involvement helps keep college/university people "up" on current happenings in education.

Evaluation

The state can play a very important role in the evaluation of EBCE. This role can result in improved evaluation of individual EBCE project sites within the state as well as the operation of a minimal common data base across EBCE sites within the state, so as to provide a picture at the state level as to the impact of EBCE. To achieve both of these purposes, it is essential to have a trained evaluator within the state who is knowledgeable about ways to evaluate EBCE effectively. This person could:

1. Serve as a consultant to evaluators at the local district level who are evaluating an EBCE program.

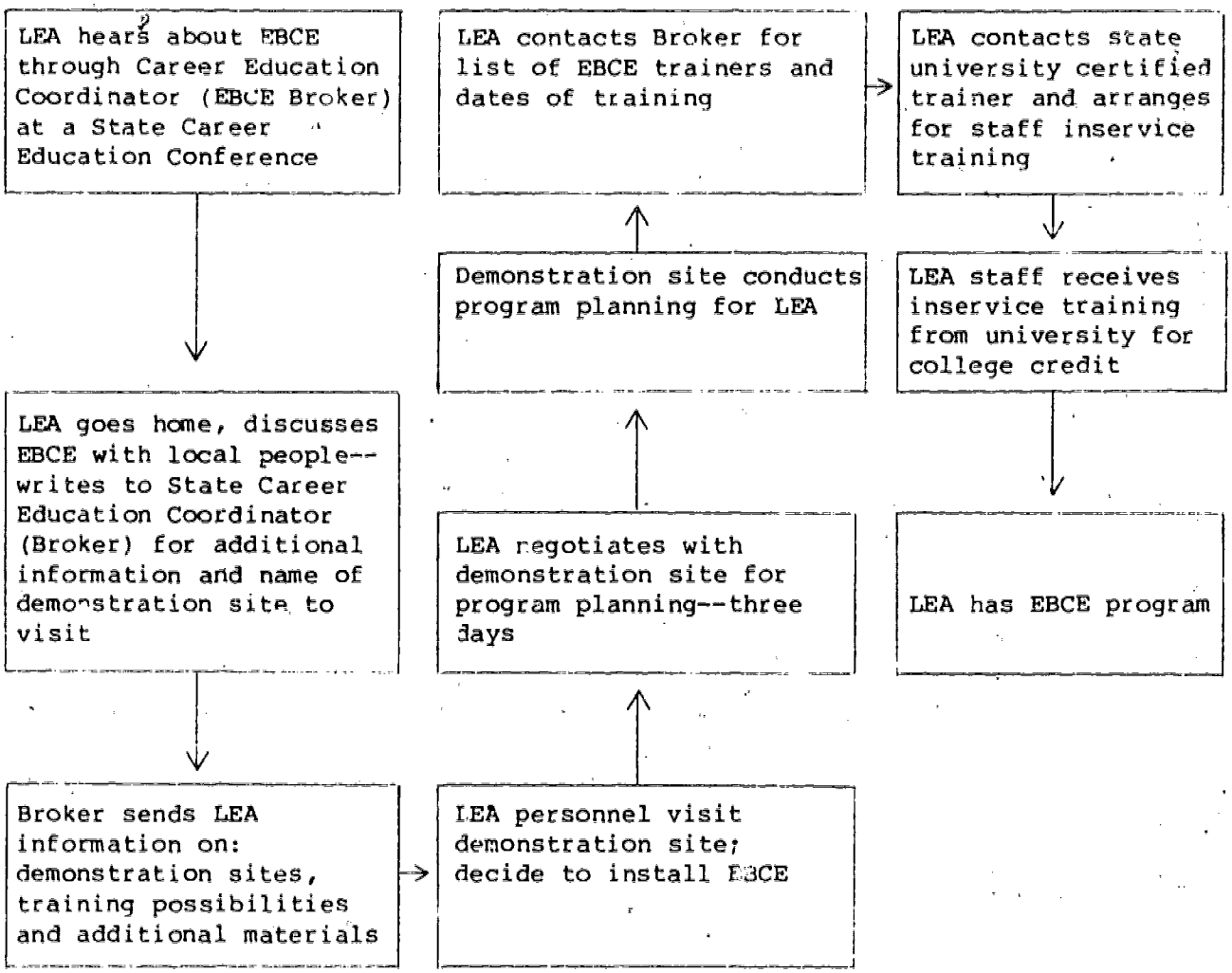
2. Coordinate periodic workshops for evaluators throughout the state who are working with EBCE so as to allow them to exchange ideas and approaches.

3. Visit the separate EBCE sites within the state to assess the level and quality of implementation.

4. Design and implement a management information system that would collect and synthesize a limited amount of common evaluation data across EBCE sites within the state.

The NWREL role in this evaluation process would be to train a person who would coordinate the EBCE evaluation activities within the state and assist in preparing a system for collecting and reporting some common data across EBCE sites within a state.

AN ILLUSTRATION ON HOW STATE PLAN CAN WORK



Individually Guided Education (IGE), another "successful" product of directed development, also developed statewide networks in which roles and functions were distributed along similar lines. Both EBCE and IGE have planned and produced independent national associations (National Association for Experience Based Career Education, Association for Individually Guided Education) as forums for continuing the discussion of theoretical underpinnings, reports of research and evaluation and practical ways to implement and refine the innovation. Both have extensive linkages with other issue and special interest networks.

Section III: Policy Recommendations

This paper has attempted to make the case for strengthening ties between networks and directed development efforts as one means of improving educational practice and increasing educational equity. Certain actions on the part of federal policymakers seem important in achieving that goal. Accordingly, I would offer six recommendations for policy at the federal level.

- Recommendation #1: Mandate networking and product network building for all collaborative federal-regional directed development efforts.

This is perhaps the most obvious as well as the most easily achieved recommendation. However, at least three aspects of this recommendation warrant comment.

First, this can only be accomplished when such efforts are in existence and the result will be most positive if done early in the process. This presents significant challenges to NIE at the present time, since there are few activities underway within the Institute's direct purview. There are and probably will continue to be more such efforts carried out by related agencies such as DOL and the various branches of USOE. Even within the

Institute's present structure, most such efforts are not in the same administrative unit as the responsibility for networking and the improvement of practice. A good deal of collaboration within the existing structure would be necessary to implement this recommendation well.

Second, it must be recognized that initial efforts will face considerable ambiguity, both in how this is to be done and exactly what constitutes a network. Again, the analogy to the considerable progress in evaluation seems a good one. Simply speaking, that analogy leads one to three conclusions:

-- This ambiguity will not be resolved without action research.

-- It is neither useful to simply mandate networking without defining it at all, nor sensible to require adherence to certain specific systems or models.

-- The solution to both lies in the intelligent use of technical direction in the contracting process. This allows the contractor to specify an initial plan and, in effect, requires mutual decisions with the contracting agency about specific implementation of that plan as the process evolves.

Finally, it is important to mandate networking among the various contractors working in a common problem area. This is not the same as the funding agency deciding at the outset to parcel out certain pieces of a problem solution to different contractors. In any significant problem area being addressed by any significant directed development effort, overlapping interests are not only inevitable, but in spite of some of the conventional wisdom, highly desirable. They provide the means to expand the breadth of contacts of geographic, issue and special interest networks and reduce the likelihood of pursuing only one of several different and promising modes of

development. This is only true, however, if they go beyond perfunctory exchanges of proposals and reports. They must and can work together (often at real savings in total expenditures) on building linkages, nurturing growth and development of important issue and special interest networks and, depending upon the extent to which they are working on a common product or practice, even collaborate in building product networks. This type of indepth networking among development efforts is a unique potential of the type of directed development which involves collaboration between federal policy agencies and regional development institutions. It can go much beyond the exchange of information which seems the most profitable and practical way possible to link the literally thousands of local development efforts in any given area.

- Recommendation #2: Support research about the life stages, boundaries and dynamics of issue and special interest networks.

Much of this paper rests on the assumption that directed development can identify significant needs, as well as draw energy and power in design of solution strategies, from the driving forces behind issue and special interest networks. This concept immediately plunges one into the morass of the various levels of networking and the ways in which subnetworks form and how the strong themes of need, such as "youth transition," effect and are affected by this complex. This is not reason to delay the involvement of networking with development efforts nor simply to be satisfied with getting advice from various constituencies until more is known. It is, however, strong reason for direct inquiry into the nature of networks' life stages and, specifically, their interactions with the process of the transmission and implementation of practices related to school improvement and equity. Study of past or current directed development efforts could be a good

vehicle for such inquiry, but should not be the only one. Again, it is essential that mechanisms be found to assure that developers become increasingly better versed in this entire developing field of knowledge if directed development and networking are to become complementary partners in school improvement.

- Recommendation #3: Encourage the involvement of networks in the process of validating products and practices from directed development efforts.

If the premise that networks have a good deal to offer in identification of significant needs, design of solution strategies and creation of support structures for utilization is valid, then it seems likely networks would also add significant dimensions to the process of compiling evidence of effectiveness and replicability for products and practices. The fact that the network members' standards for measuring such items are likely to differ somewhat from those of evaluators should not be a deterrent involving them in validation. Rather, careful selection of people from various network roles would add an important dimension to the process. It would also greatly increase the likelihood that utilization would follow validation. This would allow two different sets of important factors to be balanced in making dissemination decisions. The inclusion of network validation would add greatly to the attention given to the existence of important instrumental features which have been identified as important dimensions of effectiveness in promoting change[9] (e.g., advocates who are homologous with the norms, inclusion of the values conventions of the target

[9]Emrick and Peterson, op. cit., p. 6.

subculture, provision of opportunity for choice in the content and style of target group involvement, and the existence of effective hardcopy materials to accompany face-to-face communication). The continuation of more "conventional" measures of student effectiveness and evidence that this effectiveness is reproduced in sites beyond the original development would be the second factor, not less important but greatly strengthened by the first.

- Recommendation #4: Provide direct support for the building of product networks.

Directed development guidelines long have included dissemination of results. This has seldom been matched by the willingness to pay for any activities beyond "dissemination conferences" and production of handbooks or guidelines. Issue networks which see various practices as potentially valuable solutions are typically left with only half thought out or partially finished mechanisms for getting out the results. Given the costs of development, the additional amount required to make sure the essential mechanisms exist to support a good idea in becoming standard practice is ridiculously low. No business R&D venture would fail to provide this small additional cost in getting a good product into standard use. We know that it takes 7 to 9 years for any change to become standard practice; we know what kinds of support structures are necessary over that period; and we know that the building of product networks is a good deal less expensive than having the developers continue to provide these supports for all that time. It is certainly more cost-effective than simply stopping with preparation of information for "spread" activities. While we are not totally certain what

generic roles and functions are appropriate to product networking, innovations like IGE and EBCE offer more than adequate points for action research on the subject.

- Recommendation #5: Provide direct support and encouragement for directed development efforts to nurture the growth of the broader products and issue networks within which product networks will function.

As in the case of recommendation #4, relatively small additional investment can have high return. Both design and dissemination of the product would be positively influenced if collaborative directed development efforts are encouraged to produce syntheses of knowledge throughout the development process without always having to tie them directly to development of a particular alternative; if time can be legitimately devoted to linkages with local problem solving efforts, even to the extent of experimenting with mutual adaptation before the product or practice is fully validated by the formal processes; if money can be devoted to promoting awareness of the directed development effort within issue networks having related concerns and then to logical follow-up activities such as joint conferences, joint publications or even design of new, amalgamated approaches; and if the development effort could be allowed the possibility of spending some of its resources in technical assistance to other interests of the evolving issue networks (e.g., handbook design for a highly regarded "shoestring" local problem solving effort).

- Recommendation #6: Conduct more action research on the processes of implementation, with particular emphasis on reconciling the various federal and local perspectives in the context of a specific development effort.

Analysts such as Farrar[10] are doing an increasingly better job of identifying the differing views of the R&D process. They are pinpointing the effects which the federal attempts to influence the improvement of practice has on the local school ecology and which the local school ecology has on federal attempts to identify a "net result" from their efforts. What seems to be missing is the identification of characteristics of change associated with those innovations which appear to have been at least partially successful and positive on both counts. Dr. Datta[11] has highlighted the importance of criteria in the conclusions reached about impact of a directed development product.

> If the criterion used to judge the impact of the Brown decision is the proportion of schools attended by children of predominantly one ethnic background, the conclusion might be that little change has occurred. If the criterion includes an awareness of the importance of effective education for children of all ethnic backgrounds, the proportion of schools and post-secondary institutions with students, faculty and administrators with some ethnic diversity, or efforts to recruit, hire and promote students, faculty and administrators alike to achieve greater ethnic diversity, the impact could be considered at most revolutionary in speed and scope.

The critical element in such research might turn out to be the extent to which networks are involved in determining and articulating criteria for success, rather than having them drawn from bias about "federal intervention" on the one hand and the "necessity" for sweeping school "reform" on the other. Merging attention to these issues and networks with collaborative federal-regional-local directed development efforts could be the means for effectively pursuing this important research.

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[10]Farrar, et al., op. cit.
[11]Datta, op. cit., p. 29.

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Promoting Interaction Among Producers and Users of Educational Knowledge

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Social science knowledge is already serving useful purposes indirectly and practitioners seem to be managing quite well by relying on their own resources. However, a more intensive, sustained, bargaining approach in which the unique perspectives of researcher and practitioner could collide and be negotiated would have merit.

Key Points: Discussions about the linkage between research and practice often convey the impression that many efforts in education are undermined because the two activities are disconnected from one another.

Three assumptions underlie this view:
1. That the breakdown in the relationship is unique to the field of education
2. That social science knowledge does not presently serve practical ends
3. That schools are in dire need of improvement which only knowledge from systematic research can guide effectively

Challenges to these assumptions are:
1. The lack of linkage between research and practice is embedded in a more complex set of dynamics.
2. Social science knowledge and research is presently used by practitioners in such ways as early warning of problems.
3. It is not clear that schools are doing as poorly as many critics maintain.

For many researchers, teachers and administrators, the alleged gap between knowledge and practice is simply not that much of a problem.

For "reformers," the fact that social science knowledge is not being used to direct needed improvements in schools constitutes a major problem.

Despite optimistic hopes and worthy intentions, efforts to link research knowledge with practice have encountered some difficult and persistent problems:

Developmental activities are costly
Implanting new products and processes is not simple
Unintended consequences result
Users are cast in a passive role
Schools are assumed to be more rational than they are
Producers of knowledge often lack authoritative evidence for claims
The role of developers or linking agents often create confusion

Some maintain the problem is inadequacies of practitioners and schools. Others maintain knowledge produced by social science is inadequate for dealing with problems of practice.

Using knowledge to improve educational practice requires an interchange between two different types of organizations (universities and other knowledge producers and schools in which knowledge is used). They have different environmental constraints, orientations, incentives, norms and time schedules.

The boundary spanning organizations – or **linking agents** – are often **caught between two opposing sets of agenda and expectations** and must either side with one or another, absorb the conflict or mediate between the different positions.

Theoretically, **collaborative relationships require a shared perspective, high trust and power parity.** The existing relationship between knowledge producer and user is often characterized by different perspectives, low trust and an asymmetrical distribution of power.

Recommendations: The impact of conditions governing the interaction between knowledge producer and user can be explored by:

1. Examining existing projects where such conditions are present (an example at the policy level would be California's Beginning Teacher Education Study; an example at the school level would be Teacher Corps studies of practitioner involvement and the role of principals in Teacher Corps schools)
2. Sponsoring small-scale experiments which attempt to create conditions of interaction between researchers and practitioners

PROMOTING INTERACTION AMONG PRODUCERS AND USERS OF EDUCATIONAL KNOWLEDGE

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Without doubt, the relationship between educational theory and practice (or lack thereof) sparks controversy (Baldridge et al. 1974; Lieberman, 1979; McDonnell and Pascal, 1978; Nichel, 1979; Dunoff and Coles, 1979). Despite the attention and energy of concerned researchers and practitioners, the issue is never resolved, nor does the relationship seem to improve. Two conversations recently highlighted both sides of the issue. A teacher commenting about research noted:

> Researchers always promise the moon. They visit for a while, ask irrelevant questions and see our world so differently than we do. In return for our time they provide a report that is difficult to understand and virtually useless to us as we try to improve and change. Researchers and their research simply aren't that helpful--the usual conclusion of their reports is that more research is needed.

The other side of the issue was outlined by a researcher:

> It is almost impossible to get teachers and administrators to cooperate with us. They expect us to tell them in advance what we are looking for, want us to focus on immediate problems of practice rather than more important long-range issues and expect us to capture their entire reality rather than a manageable slice. They also expect our results to be conclusive, immediately applicable and useful. Usually, I spend a lot of time preparing summaries of our research for practitioners--something for which I receive no professional credit--but it never seems to meet their expectations.

These two conversations succinctly portray a gap between two worlds: researchers who produce knowledge and practitioners who are the intended users. Concerted efforts to bridge the gap and to connect the two worlds never seem to reduce the differences or eliminate the difficulties that keep researchers and practitioners at more than arm's length. As a result,

researchers find it harder to get schools to provide data and are frustrated by the seeming reluctance of teachers and administrators to use research results. Teachers and administrators, on the other hand, are disappointed by the lack of connections between research results and pressing problems of practice.

The continued separation between research and practice in education does not imply that nothing has been done to connect the two. Under federal sponsorship, an elaborate system of boundary spanning organizations, roles and activities--Research, Development and Dissemination (RDD) projects, information retrieval systems, linking agents and other application efforts--have arisen to improve the relationship and to see that research results are applied to help schools improve. But, for the most part, these efforts have not experienced overwhelming success and have encountered a number of difficulties.

To shed new light on such a persistent problem is a difficult feat. Others have examined the issue without making much difference in reconciling the two worlds or in providing strategies for narrowing the gap. Our expectations are therefore modest. In the paper we hope to explore three questions: (1) For whom is the gap between knowledge users and producers a problem? (2) What are some weaknesses in knowledge currently being produced and to what extent are these caused by the existing relationship between producers and users? (3) Can more useable knowledge be produced by a relationship in which the producer and user pursue important questions jointly?

In approaching these three questions we draw upon selected ideas from outside the mainstream of Research, Development and Dissemination literature. We also draw heavily upon our own direct experience in roles of

producing and using knowledge and of trying to link the two. Our primary aim is to pull from the discussion a new approach of how the efforts of knowledge users and producers might be more closely linked for the mutual benefit of each.

For Whom Is the Knowledge-Practice Gap a Problem?

Discussions about the linkage between research and practice often convey the impression that many efforts in education are undermined because the two activities are disconnected from one another. When the topic appears in the official program or publications of the American Educational Research Association the issue is usually how research might better inform practice. When teachers and administrators attend to the topic, the need for assistance in dealing with overwhelming problems takes the center stage. When policy makers evoke the issue, it is often used as a basis for scaling down federal support for educational research. The problem is taken as a given and its effects are seen as significant and widespread.

Three assumptions underlie such a view: (1) that the breakdown in the relationship between the activities of researchers and practitioners is unique to the field of education, (2) that social science knowledge does not presently serve practical ends and (3) that schools are in dire need of improvement which only knowledge from systematic research can guide effectively. Each of these assumptions can be challenged.

First, inquiring into the relationship between social science knowledge and the decision, policies and practices of organizations and individuals across settings suggests that the lack of connection between the two is a general problem. Knowledge is rarely used as a basis for action in governmental agencies, health care institutions, policy making bodies or

even in the private sector (Lindblom and Cohen, 1979; Weiss, 1979). The gap between research and practice is not limited to education; it is widespread. From this perspective, the lack of linkage between educational research and practice seems embedded in a more complex set of dynamics than many critics currently recognize.

Second, social science knowledge and research is presently used by educational organizations and practitioners in a number of ways (Weiss, 1979; Lindblom and Cohen, 1979). Research results provide practitioners an "early warning" that something may be amiss--declining test scores or decreasing public support; for example, consistent patterns of research findings suggest the need for new ways of viewing issues, and social science theory provides conceptual frameworks that practitioners can employ in looking at their world through different lenses. Research results are used as a basis for validating certain decisions in advance or rationalizing decisions that have already been made. Social science knowledge provides political leverage which gives one position an advantage over another in a contest of alternative approaches. Social science concepts provide practitioners new labels for existing practices, thereby increasing their legitimacy and status. Research projects provide a sense that important questions are being addressed; debates over evaluation results often provide an outlet for personal and organizational tension and conflict. If knowledge is already filling these important functions in the world of educational practice, even though indirectly, it seems strange that researchers should be criticized for failing to provide knowledge that can be used.

Third, it is not clear that schools are doing as poorly as many critics maintain. Meyer and Rowan (1977) argue that educational organizations are

thriving institutions in which public confidence is surprisingly high. Education organizations, compared to others, are also exceedingly stable. A business organization's failing is a commonplace occurrence which attracts relatively little attention. But the failure of a school district attracts national attention and the closing of a school can create a major controversy within a local community. From this perspective, the problems of public schools are blown out of proportion and the need for major reform is a position championed by a small number of disaffected critics.

Neither is it clear that practitioners are incapable of developing workable solutions to problems that arise without contact with research or researchers. Teachers and administrators, relying on their own experience and knowledge and in response to the daily exigencies and pressures of their setting, consistently develop strategies for solving pressing problems, many of which recognize important local needs or constraints and are politically defensible in a world of diverse constituencies and interests. The contributions of practitioners to the National Diffusion Network suggest that promising practices can evolve directly from the professional world of teachers and administrators, as well as from the social sciences.

If educational organizations are not as inadequate and problem ridden as some would suggest, and when problems arise teachers and administrators can rely upon professional knowledge to develop workable remedies, why should they want more abstract knowledge from the social sciences to guide improvement efforts?

To summarize, this view suggests that for many researchers, teachers and administrators, or policy makers, the alleged gap between knowledge and practice is simply not that much of a problem.

But, there is another viewpoint. From this perspective, schools are not fulfilling their social mandate, are irrational, inefficient and plagued with problems. For a variety of reasons, schools need to be improved or reformed. And knowledge from the social sciences can and ought to provide assistance in determining both the direction and strategies for needed improvements.

The critique is not limited to public schools. It emphasizes that social institutions generally need to be restructured, changed and improved (see, for example, Argyris, 1979). The coalition of practitioners, academics and policy makers who share this viewpoint (we'll use the term "reformists" to label the group) challenges the ideas that schools are performing adequately, that practitioners are capable of handling problems at the local level or that social science knowledge presently plays a significant role in shaping decisions, policies or practices in the everyday world of teachers and administrators.

For the "reformers," the fact that social science knowledge is not being used to direct needed improvements in schools constitutes a major problem. Academics of this persuasion are concerned about ways that their research can reach teachers and administrators and are willing to support efforts to package their research so that it will be more enthusiastically received and applied. Policy makers who endorse this position attempt to siphon money away from basic research and support activities to disseminate knowledge that is already available. Teachers and administrators who share these views actively seek knowledge that provides clear guidelines for making needed improvements and are more than willing to participate in projects or activities that provide resources to put existing knowledge to use.

For these individuals, the worlds of educational research and practice are seen as too far removed from one another. The separation creates difficulties which undermine the effectiveness of both enterprises. They care that knowledge is not being used and seek ways to increase the connection between educational theory and practice.

The reformist position is directly reflected in the Research, Development and Utilization (RDU) activities (NIE Report). Sponsored by federal funds, this approach outlines a series of sequential activities for using knowledge to improve schools: (1) knowledge is produced, (2) research findings are developed into a usable form, (3) the knowledge is then used by practitioners to solve local problems and (4) activities which are informed by a sound knowledge base produce the intended results and schools improve (Getzels and Guba, 1979; Eidell, 1968).

The main contribution of the RDU approach is to put a set of activities between the production and use of research. This in-between function--development--is carried out by a variety of different individuals--former practitioners, applied social scientists, writiers, media specialists, graphic artists. These individuals work in diverse, boundary spanning settings--R&D Centers, regional laboratories, nonprofit organizations and private contract houses or consulting firms. Developmental activities yield a number of different outcomes. Some are products--summaries of research, instructional materials, new organizational patterns or guidelines for conducting important organizational activities. Some are processes--problem solving approaches, decision-making strategies, guidelines for planning, evaluating or changing. Some involve new roles--linking agents are a prime example. Some create new organizations at the federal or state level--ERIC or RISE. Products, processes and new roles or organizations, individually

or in tandem, are implanted or linked with schools in the hope that their use will enable practitioners to improve the public schools.

But despite optimistic hopes and worthy intentions, efforts to link research knowledge with practice have encountered some difficult and persistent problems. Some of these seem particularly worthy of mention. First, developmental activities are enormously costly, diverting resources away from research, as well as programs which provide categorical resources directly to schools. Second, implanting new products, processes and roles in educational organizations is not simple. Norms, politics, recalcitrance, lack of ownership, conflict and other individual or organizational characteristics or dynamics interplay in unique local patterns to produce complex implementation problems. Products and processes which appear promising from the eyes of the developers are often swallowed or emasculated in the process of change at a local site. Third, changes using knowledge or products as a guide produce consequences which are unintended and undesirable. Teachers "burn out" and leave. Tensions between teachers, administrators and parents result from altering the status quo. Displacing old practices creates a feeling of vulnerability and loss. Fourth, because the RDU approach tends to view teachers and administrators as recipients of knowledge, users are cast in a passive role. Existing professional knowledge is undermined--professional insights, creativity and capabilities of teachers and administrators are not actively engaged. In the relationship between researchers and practitioners, teachers and administrators are often put in a dependent position. Fifth, because developmental activities reflect the rational biases of the social sciences, schools are often assumed to be more rational and connected than they actually are--or they need to be made more rational. Using knowledge to improve practice thereby ignores informal and

political processes and undermines indigenous organizational capabilities. Sixth, producers of knowledge often lack authoritative evidence for claims upon which developmental approaches are constructed. Consequently, many products and processes fail to work as they are intended because the knowledge base is inadequate. In addition, valid approaches which are fashioned on general principles often fail in schools or communities where conditions are different from those which guided the original research. Finally, while researchers often enjoy legitimacy in the eyes of practitioners, the role of developers or linking agents often creates confusion and disaffection.

In response to these difficulties, developers have devised solutions to make knowledge more useful and to increase the probability that products and processes developed from theory and research will yield improved practice and better schools. Materials have been revised, refined and rigorously tested. New approaches to change have been extracted from current knowledge of change which may help pave the way for less disruptive implementation activities. Extensive training programs have been created to increase the awareness and skills of teachers and administrators--as well as linking agents who run between the knowledge base and users. Elaborate linkage systems have been created which involve consortia of different organizations to see whether more intense connections can create a stronger base of support for using knowledge to improve educational practice. But, even with these improvements many, if not most, of the problems remain. The developmental link between knowledge and practice seems to fall considerably short of its goal of harnessing social science knowledge to improve schools.

But again, this problem needs to be set in a broader context. In one view, the gap between the activities of researchers and practitioners does

not constitute a problem. Research results get used by practitioners in a number of helpful ways. Practitioners find solutions to problems that arise. It is from another view that the linkage between research and practice needs to be strengthened. From the reformist position, using knowledge to guide strategies for improving schools will increase the probability that these efforts will achieve success. This goal is currently pursued by inserting a "middle man" between research and practice to translate knowledge into guidelines for action. But, this approach, which emphasizes the importance of development activities, is experiencing problems. As a result, knowledge is not being used effectively to help individual practitioners or schools improve.

Where Does the Problem Reside: Users, Knowledge or the Relationship?

Problems of linking knowledge to school improvement efforts support a general consensus that such activities are falling significantly short of the mark. But consensus quickly disappears when attention shifts to explaining why.

There are still some who insist that the problems of linking knowledge to schools emerge from practitioners and the organizations in which they work. Teachers and administrators lack necessary skills, are not well versed in social science research and resist pressures which might cause them to reflect on or change existing approaches or well entrenched practices. As organizations, schools are loosely connected (Weick, 1979), lack rational procedures for identifying and solving problems and rely heavily on informal or political strategies for approaching day-to-day events. Such organizational patterns are seen as incapable of providing the necessary incentives or support for teachers and administrators as they use

knowledge to improve existing conditions. In other words, the inadequacies of practitioners and schools create insurmountable barriers to potential solutions.

While this "practitioner deficiency" explanation still enjoys some credibility, it has several flaws. It is just as easy to argue that teachers and administrators are usually sympathetic to help in resolving problems they see as important; they resist changes which do not address pressing issues or which may create additional burdens or difficulties. While they are not trained as social scientists, most have a well grounded understanding of their work and an intuitive grasp of what may be done to make conditions better (Cazden, 1978). Such a view emphasizes that teachers and administrators deserve more credit than they are usually given. Similarly, current theories of organization (Weick, 1979; Meyer and Rowan, 1977; March and Olsen, 1976) call attention to the important purposes that are served by nonrational, disconnected and informal features of educational organizations. While such patterns may provide barriers to the use of social science knowledge, they serve other purposes such as reducing internal coordination costs and conflict and permitting schools to adapt to pluralistic turbulent environments. In many respects, explaining the problems of linking knowledge to action by blaming practitioners or the organizational characteristics of schools shifts attention from other more compelling explanations outside the world of practice.

There are two other promising avenues for explaining the problems surrounding activities to connect knowledge and practice. One examines the nature of social science knowledge itself. The other focuses attention on the relationship between the organizations involved in the process of linking knowledge and action. Each of these affects the other. Knowledge

produced by social science may be inadequate for dealing with problems of practice; but such inadequacies are undoubtedly influenced by the existing relationship between the producers and users. Similarly the availability of more usable knowledge might help the relationship to improve. We explore both the nature of knowledge and of the relationship between the producers and users of knowledge and suggest some criteria for an alternative approach which may improve both knowledge and the relationship.

The Nature of Knowledge

There are two different types of knowledge--knowing "that" (propositions) and knowing "how" (skills or capacities). To know, for example, that a principal influences classroom instruction requires three conditions: (1) a belief that the principal influences instruction, (2) evidence of the principal's influence on instruction and (3) the principal's influence on instruction must, in truth, exist.

Knowing "how," while still an achievement, relies less heavily on the satisfaction of the three conditions. Rather, it emphasizes the possession of a capacity, skill or ability. The performance of these across those who know "how" may vary. Two people may know "how" to teach; one may teach better. The product of knowing "how" is an achievement, but a process or performance is also essential.

The two aspects of knowledge are independent of one another. One can know how to administer a school without knowing the truths or propositions of administration. One can teach without knowing the laws or principles of teaching. Or one can know that schools are loosely structured organizations without knowing how to either teach or manage schools. In fact, paying undue attention to both aspects of knowledge simultaneously may inhibit the

effective performance of the skill. Ryle (1966) suggests that the process of "doing" and the process of "observing and understanding" may be so distinct that they cannot take place at the same time. He reasons that if the practitioners self-consciously focus on particulars of "doing" rather than on the process as a whole, their performance will be clumsy at best, and probably paralyzed at worst. Knowing "how" is tacit knowledge.

The connection between theory and practice stimulates a philosophical debate. Descartes, for example, claims that knowing "how" proceeds from knowing "that," or that skill evolves from theory. Ryle and Scheffler (1965, 1966) however, suggest the opposite--that theory grows out of practice. As Ryle (1966) has pointed out, "There is no contradiction, or even paradox, in describing someone as bad at practicing what he is good at preaching."

The philosophical debate is reflected in two different conceptions of teaching or educational administration. Those who see teaching or administration as a science believe that the knowing "how" revolves around knowing "that." They maintain that teaching or administration may best be improved through better informed theories. The knowledge they seek and produce tends to be formulas or cause-and-effect relationships between instructional variables and learner outcomes. On the other hand, those who see teaching or administration as a craft believe that knowing "that" grows out of a continued practice of knowing "how." Those seeking improvement in the craft of teaching or administering stress the need for exposure to the accumulated experience, judgment and intuition of seasoned practitioners (Phillips and Cohen, 1979).

Knowledge produced by social science researchers (knowledge that) is different than knowledge that may be useful to practitioners in improving current conceptions of how to (skills and capacities). First, knowledge

produced by the social science researcher is largely propositional knowledge which ignores the craft or knowing "how" aspect of teaching. Second, social science knowledge is probabilistic. It specifies cause and effect, relationships which assert that if teachers or administrators do X, Y will probably occur. But although the strength of such relationships may satisfy the criteria of social scientists, the probabilities may not provide adequate assurance for teachers or administrators that a specific teaching technique or administrative approach will work in a particular classroom or school. Often, the guarantees from knowledge that a specific relationship between an activity and outcome will hold in a given situation is no better than chance.

Third, and in a related vein, social science knowledge is often too abstract for practitioners to apply to unique settings. The aim of scientific research is to produce universal laws which apply across situations. To discover and verify these laws, researchers strip findings of context specific variables, forgetting that in the world of practice it is impossible to hold such variables constant. Therefore, universal, abstract laws have little meaning to the unique and multifaceted world of the practitioner. Human action and interaction can be understood only within its own context of socially grounded rules for defining, categorizing and interpreting the meaning of behavior. Elliot Mishler (1979) proposes that research produce alternative propositions to those currently coming out of social science research. Instead of general propositions to hold under all conditions, he suggests propositions which specify the conditions under which a relationship would hold. In scientific terms, rather than produce a blanket formula ($Y = f(x)$), state a modified formula (if Z, then $Y = f(x)$). This type of proposition is less abstract; its concreteness makes it easier for the

practitioner to understand and to transfer to a particular classroom, school or district.

In the attempt to produce universal laws about teaching or administering, the scientific approach to educational research views teaching or managing as a technology and ignores the possibility that either activity is situationally specific, interactive, creative or often intuitive. The approach often fails to recognize that the subjects being studied are knowing beings; the knowledge they possess is important for the interpretation of their own behavior. They know which behavior patterns work and which do not; they do not always need to know why. By ignoring that human behavior is constructed purposefully to meet the needs of a particular situation, social science research often produces knowledge which claims to be universal but is not necessarily transferrable to a variety of settings (Magoon, 1977).

Fourth, social science research often fails to recognize practitioners as active constructors of their own reality and rules (Magoon, 1977). Verification of the meaning of observed patterns is essential because of the situational specificity of teaching or administrative tasks. The ethnographer's criticism of anthropologists who generalize can be applied to educational research. Dell Hymes (1979) reminds us that a greeting such as "how do you do?" may be universal, but the meaning it conveys may vary from culture to culture, from setting to setting. In one place, such a greeting may be considered offensively formal; in another, only such a formal greeting may be appropriate. Similarly, the culture of one classroom may have established rules which allow much random verbal interaction, while in another class the rules allow only for structured and controlled responses. Researchers often attempt to control the variables rather than to allow and take into account these natural differences.

Fifth, social science research is heavily influenced by rational norms. Results of scientific research are often produced in formulas with quantitative descriptions. While causation is essential for understanding and predicting, the scientific form of presentation seems to lose sight of the fact that human decision making is not always rational and predictable (March and Olsen, 1976). Motivations are not clear or bounded; uncontrollable variables impinge upon decision and influence behavior. Moreover, people's problem solving is more often informed by the common activities of social learning (like coin tossing or voting) and social interaction (nonscientific ways of knowing and organizing) than it is by what Lindblom and Cohen (1979) call professional inquiry (PSI). In fact, they maintain that people depend heavily upon ordinary knowledge when solving problems and making decisions.

To Lindblom and Cohen (1979) particularly, academicians, R&D personnel and scientifically oriented consulting services rely heavily on assumptions of rationality emphasizing that: (1) a single decision maker or decision making process operates, (2) the decision process is rational and unimpeded by politics or special interests, (3) scientific authoritativeness will not evoke hostility and nonrational reactions and (4) problems can be bounded. The world of practice does not necessarily support these assumptions.

Sixth, social science knowledge offers no view of alternatives. A practitioner may already know that if X, then Y, but may not be aware of any other options for action than X. By only describing in a controlled form what already exists, scientific research does not directly promote learning for the craftsman. It might even help to maintain the status quo. Chris Argyris expresses this criticism of normal science research when he demands that research do more than describe and predict; he asks that it provide

"liberating alternatives" (1979). He extends the criticism to the methodologies of social science research. Because the methodologies involve what he has labeled the Model I (Argyris and Schon, 1974) governing variables--unilaterial control, distancing and self-protection, neither the researcher nor the practitioner can be aware of distortions which will affect the validity of the knowledge produced. The resulting knowledge is either so routine that it is already known to the practitioner or so complex and abstract that it is useless.

Finally, knowledge produced by social science research often does not address the issues that practitioners are most concerned with--such as control, discipline or politics. And, as Patten (1977, 1978) has noted, research seldom tells practitioners more than they already know. Where research does inform practice, teachers and administrators seldom adapt knowledge from particular studies. Instead, they accummulate information about top priority concerns which is gradually formed into generalizations which are then assimilated. Over a period of time, these concepts can lead to a reorientation of thought patterns. At this point, a change in action may occur. But even in this optimistic chain of causation, research knowledge is only linked indirectly to action or practice (Weiss, 1979).

In sum, the knowledge produced by social science research appears to lack certain qualities which make it less applicable and useful than many would hope to the practice of teachers and administrators. Social science ignores craft knowledge (knowing how); it is highly probabilistic; it is often too abstract to apply in particular settings; it fails to recognize that practitioners are active constructors of their reality; it is heavily rational; it offers no alternative for change; and it does not always address the concerns that are highest in the priorities of practitioners.

For social science knowledge to be usable to practitioners, the following criteria need to be addressed:

1. The general principles of the teaching or administrative task must be linked to the procedural knowledge of the practitioner.

2. The knowledge must be concrete and situationally specific.

3. It must recognize that practitioners are active constructors of their own reality and rules.

4. It must allow for the political, symbolic and other nonrational features which operate in educational organizations and settings.

5. It must be a source for generating alternatives for change.

6. It must address issues and concerns that are relevant to practitioners.

Theories, research results, materials or any form through which knowledge is transmitted to teachers and administrators will reflect these underlying problems of social science research as it relates to practice. But, our enumeration of the inadequacies of social science knowledge does not mean that the desired linkages between theory and practice is hopeless. Rather, looking at the weaknesses of social science knowledge illuminates another explanation for why the two worlds are separate. The weakness of the knowledge may well be the result of a counterproductive relationship that currently exists between the producers and users of the knowledge. To satisfy the criteria of usable knowledge, interaction between the two perspectives seems reasonable and necessary throughout the entire process from the original determination of the questions for study through the gathering and interpreting of data to the generation of strategies for implementation. Researchers know "that"; teachers and administrators know "how." To expect practitioners to know "that" may be dysfunctional; to expect researchers to know "how" is impractical. But combining the two perspectives may yield some promising directions. The knowledge bases of

the two worlds may need to collide. Yet, an examination of the standing relationships between producers and users does not reveal such interaction.

The Nature of the Relationship

Using knowledge to improve educational practice requires an interchange between two very different types of organizations: universities or other settings where knowledge is produced and schools where it is intended that the knowledge will be used. Consider just a few of the differences. The two types of organizations face different environmental constraints--knowledge producing organizations look to the federal government for support and are constrained by federal expectations, politics and time schedules; public schools are highly dependent on the support of local communities and must constantly monitor the expectations and address the concerns of parents and local residents. The two organizations have different orientations--knowledge producing organizations create general principles which contribute to an accumulating body of wisdom; schools, as knowledge using organizations, are concerned with developing specific strategies which maintain a smoothly operating, effective program. The two organizations provide different incentives--producers are often rewarded and promoted on the basis of their contribution to a general knowledge base through scholarly publication; users are rewarded and promoted on the basis of their ability to act and get things done without causing problems. The two organizations have different time perspectives: knowledge producing organizations are governed by long-range agenda; public schools are often concerned with the immediate and must deal with short-term crises and issues. The two organizations have different norms--knowledge production is governed by the rational canons of the scientific methods and must observe the dictates of design and control; schools, on the other hand, are highly subject to political exigencies and

the preferences of individuals and interest groups and must often observe the dictates of individual or collective whim and need. The two organizations often have different incentives for participating in joint efforts--knowledge producing organizations are interested in learning more about schools or teaching or how practitioners apply knowledge to local problems; schools are often interested in an opportunity to obtain additional resources or to embark on an exciting new adventure. The two organizations must adhere to different time schedules--schools are generally more sensitive to the cycles of holidays and ceremonial events than are knowledge producing organizations. Across a variety of important dimensions, the organizational settings of knowledge producers and knowledge users is vastly different.

As the efforts of producers are linked to users, these organizational differences create tensions and conflicts. Federal expectations run afoul of local concerns. General principles fail to mesh with local idiosyncracies. Schools want answers now while researchers are satisfied with identifying better questions. Research designs focus attention on a narrow slice of life which is unimportant to local needs and preferences. Knowledge producers are disappointed that schools seem more interested in the benefits of additional resources without focusing attention on important problems and using knowledge to generate promising new strategies. Even where boundary spanning organizations are given the responsibility for linking knowledge and action, the differences between the organizational worlds of knowledge producers and users can create tensions and conflicts. The boundary spanning organizations--or linking agents--are often caught between two opposing sets of agenda and expectations and must either side with one or another, absorb the conflict or mediate between the different positions.

From these real differences between the organizational settings of producer and user grow a set of mutual myths and stereotypes which create a climate of suspicion and mistrust. Researchers are seen as impractical, irrelevant and uninterested in schools. Practitioners are seen as short sighted, crisis oriented and nonintellectual. Practitioners can easily recall a time when researchers took the data and ran; researchers note their colleagues whose study was aborted by a nervous administrator. To researchers, practitioners are overly rational, pious, mechanistic and tight. Practitioners think that researchers make reputations on their published criticisms of schools and wish that they would focus more attention on problems in universities; researchers see practitioners as overly hostile to their good intentions and attribute inhospitality to defensiveness.

Such myths and stereotypes often are used by either producers and users of knowledge to characterize the other; thus, powerful self-fulfilling expectations are established. These expectations further contribute to the tension and conflict centering on real organizational differences.

One of the real organizational differences that becomes apparent when the two are brought together is that the power and influence distribution between the two positions are often asymmetrical. The power of the knowledge producer is based on higher status, greater expertise, having something that schools need and often control over the resources that support the activity. The power of the schools is based on their initial willingness to participate and on their ability to withdraw. But, their status position is lower, their control over resources is often limited and their access to the knowledge base (expertise) is dependent upon the participation of the knowledge producer. In relationships between two

different organizations, in a climate of suspicion and mistrust, one organization (the knowledge producer) is often in a better power position than the other (the knowledge user). At the same time, schools always have the ability to withdraw from the relationship. And since it is not always as clear to schools as it is to researchers that knowledge can be used to address important issues, the knowledge producer is usually on the defensive. Because if the schools withdraw, the funds supporting the joint effort may be .thdrawn by the sponsoring agency.

Where boundary spanning organizations are involved, the relationship is even more precarious since the status position is reduced and the access to the knowledge base (expertise) operates through a third party. The knowledge, removed even farther from its source, becomes open to inaccurate or loose interpretations. As a result, schools may exert more control over a linking organization than over a knowledge producer. Another result may be an increase in hostility from the schools because they might resent working with a "middle person."

Under conditions of different perspectives, low trust and asymmetrical power distribution, a bargaining or negotiation relationship is usually preferable in resolving conflicts or dealing with tensions (Derr, 1979). But the literature which discusses the nature of the relationship between researcher and practitioner is heavily biased towards collaboration (Berliner, et al. 1976; Florio and Walsh, 1976; Chitterden and Bussis, 1979). Theoretically, collaborative relationships require a shared perspective, high trust and power parity (Derr, 1979). The existing relationship between knowledge producer and user, however, is often characterized by different perspectives, low trust and an asymmetrical distribution of power. The resulting relationships is either a phoney

collaboration characterized by a win-lose mentality or a capitulation of the practitioner characterized by their "conversion" to the producer's (expert's) way of thinking. In linking educational research to practice it may, therefore, be counterproductive to emphasize the formation of collaborative relationships. Rather, an interactive approach using negotiation or bargaining model might be more appropriate.

In examining the linkage between educational knowledge and practice, several issues emerge. First, the organizational settings of those who produce knowledge are very different from those of the intended users. These differences lead naturally to tension and conflict between researchers and practitioners. Second, myths and stereotypes arise around natural differences which create a climate of mutual suspicion and distrust. Third, in establishing relationships between the producers and users of knowledge, power imbalances often favor one group or the other. Fourth, efforts to create relationships between educational researchers and practitioners often emphasize collaboration, even though conditions may favor bargaining. Finally, many of these same issues will affect boundary spanning organizations which arise to link knowledge production with knowledge use.

Activities designed to link educational research with practice may be improved by creating conditions which would encourage the following:

1. Explicit acknowledgment of the differences in the organizational settings.
2. The recognition and management of the tensions and conflicts created by these differences.
3. The direct confrontation of myths and stereotypes.
4. An open discussion of the prevailing distributions of power and influence.
5. Use of negotiation and bargaining strategies.

In sum, the problems which undermine the linkage between social science research and school improvement efforts are complex. It seems reasonable to question explanations which place the blame on practitioners and the organization in which they work. But inadequacies of social science knowledge and problems in the relationship between producers and users do present a set of issues which need attention. Increasing and changing the nature of the interaction between producers and users of educational knowledge may provide directions for improving the link between knowledge and educational improvement. In the next section some specific strategies are outlined.

Can More Useful Knowledge Be Produced by Increasing Interaction Between Researchers and Practitioners?

Researchers currently produce significant amounts of knowledge which, for a variety of reasons, is not directly useful to practitioners. Although such knowledge serves other helpful purposes, it is rarely linked directly to efforts of practitioners aimed at improving educational practice. Linking agencies and linking agents have undoubtedly increased the uses of social science knowledge among practitioners. But a variety of difficulties reduce the overall impact on school improvement. Similarly, practitioners rely heavily on ordinary knowledge which accumulates from direct experience in teaching classes or administering schools. Although craft knowledge allows teachers and administrators to deal successfully with everyday problems, it by and large does not influence the direction or substance of social science inquiry.

Researchers know "that" (propositional knowledge); practitioners know "how" (procedural knowledge). Although each type of knowledge potentially has something to offer the other, they remain largely independent. But

research could profit from a more thorough understanding of the unique settings and problems of practitioners. And practitioners' conceptions of the world could undoubtedly be enriched by examining general principles from social science and research.

The central issue is how the two might be linked. Current approaches stress collaboration, but such relationships between researchers and practitioners are often tense, and the hidden conflicts lying beneath a seemingly placid surface prevent a lively and productive interaction between the two different perspectives. Consider some examples:

> In a recent government sponsored conference, a mixed group of researchers and practitioners were assembled to discuss areas of common concern. The goal of the conference was to determine researchable issues which might also be helpful to practice. The meeting was rational and calm, with little overt disagreement. After the meeting, however, a group of administrators sharply criticized the researchers for being overly abstract, pompous and irrelevant. A small group of researchers noted that the concerns shared by the administrators focused mainly on disciplining students and maintaining an efficient operation. As one researcher pointed out, "don't they care about instruction at all?"

> An evaluator, hired by a school district to examine a Title I program, presented his findings to a school staff. The staff had been immensely cooperative in providing information and seemed to be supportive of the evaluator. During the presentation, the teachers and principal listened quietly, raised a few polite questions and accepted the results by silent consensus. After the evaluator left, the staff met and discredited the methodology, criticized the focus of the study, disputed the results and filed the evaluation report without examining its potential usefulness. The evaluator leaves with some faulty assumptions about how schools react to evaluators. The practitioners never gave the evaluator an opportunity to share important insights.

> A teacher whose classroom was the object of a research study reacted defensively to the questions of the researcher but completed the interview. Afterwards, however, she mentioned to a colleague that the questions seemed irrelevant to her main concerns and confessed to answering the researcher's questions "the way I thought she wanted them answered," providing misleading answers to the questions.

In each of the examples, the differences between the perspectives of researcher and practitioner were never acknowledged or openly discussed.

Concerns and tensions were smoothed over. And in none of the examples was practice informed by research, or vice-versa.

If social science knowledge is to become more useful and if practitioners are to use research results in conjunction with ordinary knowledge to improve practice, then the relationship between knowledge producer and user needs to change. Interactions between the two needs to be sustained, equitable and open, with an emphasis on active give and take. Principles of negotiation or collective bargaining may profitably replace rules of collaboration to govern the interaction of researchers and practitioners at the policy, local school or classroom level.

The assumption is that more intensive bargaining interchanges between two very different perspectives will yield more valid knowledge and improved practice. In addition, such relationships may have some important secondary effects--increasing feelings of efficacy among both researchers and practitioners; promoting better understandings about the perspectives, problems, roles and potential contributions of each enterprise; fostering more positive attitudes among practitioners of the benefits of research and among researchers of the importance and value of the craft knowledge developed by practitioners; creating a willingness among practitioners to support research and a willingness among researchers to devote more attention to the improvement of practice; and developing a stronger set of beliefs about the role research can play in practice, and vice-versa. Over the long run, more candid and intense bargaining relationships between researchers and practitioners may lead to more collaborative relationships. But only if the conditions of mutually exclusive goals, suspicion and power inequities are replaced by mutually negotiated goals, trust and power parity.

We are not arguing that the current system linking research to practice needs to be radically overhauled or replaced. Rather we are suggesting the need to explore the impact of altering the conditions which govern the interaction among the producers and users of knowledge in a variety of settings. The two frequently come together at the policy, local, school or classroom level to determine jointly the research questions, discuss research design and appropriate methods for gathering information, interpret the results of research and develop implications for practice or future research. At any level, at each of these stages, interaction between researchers and practitioners can have value. But, only if the conditions governing the interaction approach the following conditions.

1. Climate

    a. Differences between the perspectives of researcher and practitioner need to be surfaced, recognized and accepted.

    b. Myths and stereotypes need to be confronted and discussed.

2. Structure

    a. Roles need to be established which capitalize on the strengths and capabilities of each group and are understood and accepted by all.

    b. Rules need to be created which encourage advocacy of different positions and which establish procedures for negotiating differences in interpretation or positions or for negotiating areas of dispute in jurisdiction or responsibilities.

3. Power

    a. The distributions of power needs to be recognized and discussed.

    b. Boundaries for the exercise of power need to be outlined and agreed on in advance.

The impact of these conditions on interactions between researchers and practitioners and on the subsequent impact of such interactions on the

usefulness of knowledge, the nature of practice or such secondary effects as the understandings, attitudes or supportiveness of both groups can be explored in two ways.

First, examine existing projects where such conditions are present. At the policy level, California's Beginning Teacher Education Study (see The Generator, Spring 1979) appears to meet these conditions. The study was guided by the California Commission for Teacher Preparation and Licensing and involved researchers and practitioners in a sustained interaction over the entire course of the research effort. Stanford's Environment for Teaching's experiment in convening practitioners from several California School Districts to interpret research findings represents a similar approach but limited to one phase of the research process (Rosaler and Deal, 1979).

At the school level, the Teacher Corps has currently commissioned studies of practitioner involvement and the role of principals in Teacher Corps schools which build in a strong interaction between researchers and practitioners at various stages of the study. Similarly, Dell Hymes is currently using ethnographic monitoring of principals in a variety of schools in an attempt to jointly pursue questions which interest both researchers and practitioners.

At the classroom level, Florio and Walsh (1976) and Chitterden and Bussis have involved teachers as active participants in studies of classrooms and teaching. Evidence from both studies suggested the benefits to both social science research and to teachers participating in the study. Whether these studies meet the conditions above is subject to question but worth pursuing.

In addition to inquiring into ongoing efforts, the National Institute of Education might consider directly sponsoring small-scale experiments which attempted to create conditions of interaction between researchers and practitioners approaching those outlined above. Such efforts would not be designed to replace existing dissemination activities but, rather, to see whether changing the relationship between producers and users might alter the nature of knowledge, increase the usefulness of knowledge to practitioners or change the attitudes and understandings of both groups. Some possible projects include:

At the policy level:

1. Provide resources to groups such as California's Commission on Teacher Preparation and Licensing which permit practitioners to guide research, but which also create conditions that promote sustained interaction between the two perspectives over the course of the study.

2. Convene groups of researchers and practitioners to discuss directions, interpret findings or discuss implications of research. Organize the climate, structure and power relationships of the sessions in order to maximize interaction between the researchers' and practitioners' perspectives. The intention of such interaction would be to increase mutual understanding through awareness of different perspectives and to foster more positive attitudes between researchers and practitioners.

3. Provide funds to small groups of researchers and practitioners at the state level and outline a bargaining process through which they "over the table" determine and carry out a contract for research.

At the local level:

1. Provide research vouchers to local schools or school districts which permit them to contract with research groups for studies within specified areas.

2. Sponsor the creation of consortia of schools or school districts which develop research agenda around common concerns and are then required to negotiate with a research group a contract to conduct appropriate studies.

3. Commission research studies which inquire into ordinary knowledge used by principals or superintendents in dealing with day to day issues in schools. Require a review team composed of researchers

and practitioners to relate such approaches and practices to general principles of administrative or organizational theory and to codify the findings for distribution among both practitioners and researchers.

At the classroom level:

1. Commission classroom studies in which researchers and teachers jointly determine questions, acquire information and interpret the results.

2. Provide resources to teacher centers which allow them to commission research studies into areas of concern.

3. Provide researchers resources to study and codify professional knowledge by teachers in individual classrooms. Such studies would require interaction with the practitioner.

Conclusion

We began this paper by highlighting the gap between research and practice and outlining three questions which might faithfully guide an exploration of the problem: (1) For whom is the gap a problem? (2) Is the problem caused by practitioners, knowledge or the relationship between researchers and practitioners? (3) Can a different relationship between knowledge producers and users improve the situation?

Our major goal was to generate some strategies for increasing the interaction between knowledge producers and users. But we wanted to set the goal in a broader context. We did so by noting that, from one perspective, social science knowledge is already serving useful purposes indirectly and practitioners seem to be managing quite well by relying on their own resources. But we also examined another view which suggested that teachers and administrators could benefit from the social sciences if a way could be found to apply such knowledge to practical efforts to improve schools. We noted that the pathway is blocked by three factors--practitioners, the nature of knowledge and the existing relationship between producers and

users. We discounted the first, highlighted the second and suggested that a primary reason for the inadequacies of social science knowledge lies in the existing relationship between researchers and practitioners.

Our primary task, however, was to suggest that a more intensive, sustained, bargaining approach in which the unique perspectives of researcher and practitioner could collide and be negotiated would have some merit. In disseminating social science knowledge it may be helpful to create conditions in which practitioners and researchers can interact in ways that result in the improvement of both schools and research.

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