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This report presents the results of an inquiry initiated by the Dissemination Policy Council of the Educational Division of HEW into the present strengths and weaknesses of educational information dissemination in the nation and what policies or policy changes at the Federal level might be implemented to help deal with the weaknesses. Recommendations include: (1) establishment of consistent definitions in law and in practice; (2) establishment of planning and administrative mechanisms at all levels; (3) initiation of training programs; (4) improved research, development, evaluation, and collection of descriptive data; (5) increased financial resources for dissemination; and (6) development of a nationwide vision of a comprehensive educational dissemination system. (Author/STS)

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ED144540

DISSEMINATION IN RELATION TO ELEMENTARY AND SECONDARY EDUCATION

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

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FINAL REPORT

of

THE DISSEMINATION ANALYSIS GROUP

to

THE DISSEMINATION POLICY COUNCIL

January 1, 1977

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EXECUTIVE SUMMARY

DISSEMINATION IN RELATION TO ELEMENTARY AND SECONDARY EDUCATION

This report presents the results of a year long study of dissemination in relation to elementary and secondary education.

The study was conducted by a combined group of government and non-government specialists, with numerous opportunities for input and comment by interested parties.

The report takes a nationwide perspective on educational dissemination, identifies operational and systemic problems, and then examines Federal dissemination activities to see whether they contribute to resolving the problems. In general, the study found that on a problem-by-problem basis Federal dissemination activities were sensible approaches to stimulating the solving of the problems. On the other hand, the study found that few of the existing dissemination activities encourage the kinds of combinations of existing networks and capabilities needed to improve educational dissemination in a major way.

The report thus focused its recommendations on steps to increase the "fit" between the many different ongoing activities at the Federal level, and on bringing about a complementarity between Federal dissemination activities and the numerous discrete developments that states, local districts, and private groups are undertaking to improve their dissemination efforts.

To create an interrelated nationwide system for educational dissemination, the report asks that seven steps be taken:

1. Establish consistent definitions of dissemination in law and in practice.
2. Establish planning mechanisms at the Federal, national, regional, state, and sub-state levels.
3. Establish administrative mechanisms at the Federal, national, regional, state, and sub-state levels.
4. Initiate widespread training programs.
5. Improve research, development, evaluation, and the collection of descriptive data.
6. Increase financial resources for dissemination, and provide for flexibility of use.
7. Develop a shared nationwide vision of a comprehensive educational dissemination system.

The report further lays out possible actions to achieve each of these steps.

The report also addresses the management of dissemination activities at the Federal level, and focuses on needed planning and coordination functions to insure that the separate dissemination activities within agencies and between OE and NIE fit together in support of an interrelated nationwide system. The report makes recommendations in five major areas.

1. Planning and Policy Setting
2. Administrative Direction and Coordination
3. Internal and External Communication
4. Reducing Legal and Organizational Fragmentation

5. Preparing Legislative Proposals

The report recommends that the Dissemination Policy Council (DPC) be made a permanent body and be charged with setting Division-wide dissemination policy. It recommends that the DPC be provided with a small staff and budget to coordinate Division-wide planning and conduct administrative reviews; to manage an internal and an external communication system; and to prepare legislative amendments or proposals in the areas of: defining dissemination, financing dissemination, training users and specialists, supporting research, development, and evaluation of dissemination, and encouraging the development of intermediate service agencies.

INTRODUCTION

This report presents the results of an inquiry initiated by the Dissemination Policy Council (DPC) of the Education Division of HEW into the present strengths and weaknesses of educational dissemination in the nation, and what policies or policy changes at the Federal level might be implemented to help deal with the weaknesses. The report itself is the work of twelve specialists, three from within the government and nine from without, who collectively were known as the Dissemination Analysis Group (DAG). They were assembled specifically to prepare this document. This final report will serve as the basis for Dissemination Policy Council recommendations to the Assistant Secretary for Education on dissemination policy for the Education Division of HEW.

SCOPE AND LIMITATIONS

The analysis, and thus this report, are broad in scope:

The report takes a genuinely nationwide view of dissemination, not a narrowly Federal one.

The focus is on working with what is already available to accomplish dissemination, coordinating and improving existing capabilities wherever possible, and creating new agencies, networks, and functions only when no reasonable alternative seems available. In other words, the report envisions the creation, over some period of time, of a nationwide system of interrelated national (including Federal), state, local, and private dissemination systems, rather than a single, national, centrally-directed dissemination system.

The report adopts a comprehensive definition of dissemination covering everything from blanket mailings and speeches to focused assistance to schools attempting to implement some innovation of their choice.

The report employs a very broad and comprehensive definition of the "things" to be disseminated, from ideas and information through more or less well-specified products to exemplary practices and processes.

The analysis and the report reflect several important limitations:

While the improved education of children, and the needs of users working directly with children have been a constant backdrop, the DAG opted to take a macroscopic look at the dissemination systems in the nation as a way of meeting these user needs. The report and the recommendations reflect this system perspective.

The focus is on dissemination to (or affecting) practitioners and policy makers in elementary and secondary schools and districts only.

The report does not focus on improving dissemination among institutions of post-secondary education; nor does it address dissemination among other groups engaged in education-related activities, except insofar as improvements there would improve dissemination to elementary and secondary schools.

While the DAG sought not to exclude non-public schools, their involvement in some of the proposed recommendations would, of necessity, be tempered by whatever Constitutional limitations are applicable.

While the DAG acknowledges that events in the larger social context (e.g., changes in tenure laws, strength of teacher unions) and broad Federal social policies (e.g., changes in financing formulas) may affect and have more impact on schools than any planned curricular or administrative intervention,

such larger context variables are beyond the scope of this report. The DAG has not dealt with the full variety of ways in which Federal behavior can affect schools.

The DAG specifically did not do the detailed priority setting, planning, and sequencing of steps for implementing any of the recommendations, believing this is best left to the operating programs and agencies after the policy is established. The DAG suggests in particular that a number of the recommendations be tested on a pilot basis first, before any effort at nationwide implementation is undertaken.

Of course, not every DAG member agrees fully with every recommendation. However, to avoid the distraction, the DAG decided not to include minority comments on certain points as, overall, every DAG member supports the vast majority of the recommendations.

DEFINITION OF DISSEMINATION

The DAG determined that activities engaged in by those claiming to do dissemination can be classified into one of four categories according to the intent or purpose of each activity. Since the categories are related and frequently sequential, the DAG adopted a definition which has four levels and defined each level in both words and examples:*

Level 1 : Spread: The one-way casting out of knowledge in all its forms: information, products, ideas and materials, "as though sowing seeds."

*The DAG recognizes that others have used the term "dissemination" in other ways. However, this definition is consistent with the definition in the recent Interstate Project on Dissemination (IPOD) report, it represents the most common public use of the term, it is directly applicable to the use of the term "dissemination" in the laws, and it is particularly helpful in planning, or in describing ongoing dissemination activities.

Examples:

Radio and television broadcasts, general mailings (without follow-up or feedback), news releases, speeches, official publications (e.g., the Federal Register; Commerce Business Daily), journal and magazine articles, books, newsletters; inclusions in ERIC, libraries.

Level 2 : Exchange: The two-way or multi-way flow of information, products, ideas and materials as to needs, problems, and potential solutions.

Examples:

Need-arousing, need-sensing, and activities which provide for user influence ("feedforward"); feedback activities, as user surveys, user panels, and site visits; and sharing activities, such as conferences among peers.

Level 3 : Choice: The facilitation of rational consideration and selection among those ideas, materials, outcomes of research and development, effective educational practices and other knowledge that can be used for the improvement of education.

Examples:

Incentives of LEAs to engage in search behavior before making decisions; training in decision-making; visits by decision-making practitioners to a variety of demonstration sites; searches of resource bases, and comparisons of the array of relevant programs, products, or knowledge so generated; catalogs comparing alternatives; traveling exhibits.

Level 4 : Implementation: The facilitation of adoption, installation and the ongoing utilization of improvements.

Examples:

Consultation, on-user-site technical assistance, locally tailored training programs in required new behaviors; laboratory settings for the practice of new behaviors.

The DAG recognizes that an appropriate level of effort, or an appropriate set of dissemination activities to satisfy the dissemination authority in any particular law may involve fewer than all four levels of the definition: Through the use of the complete definition, Congressional intent as to the focus of dissemination activities can usually be readily determined.

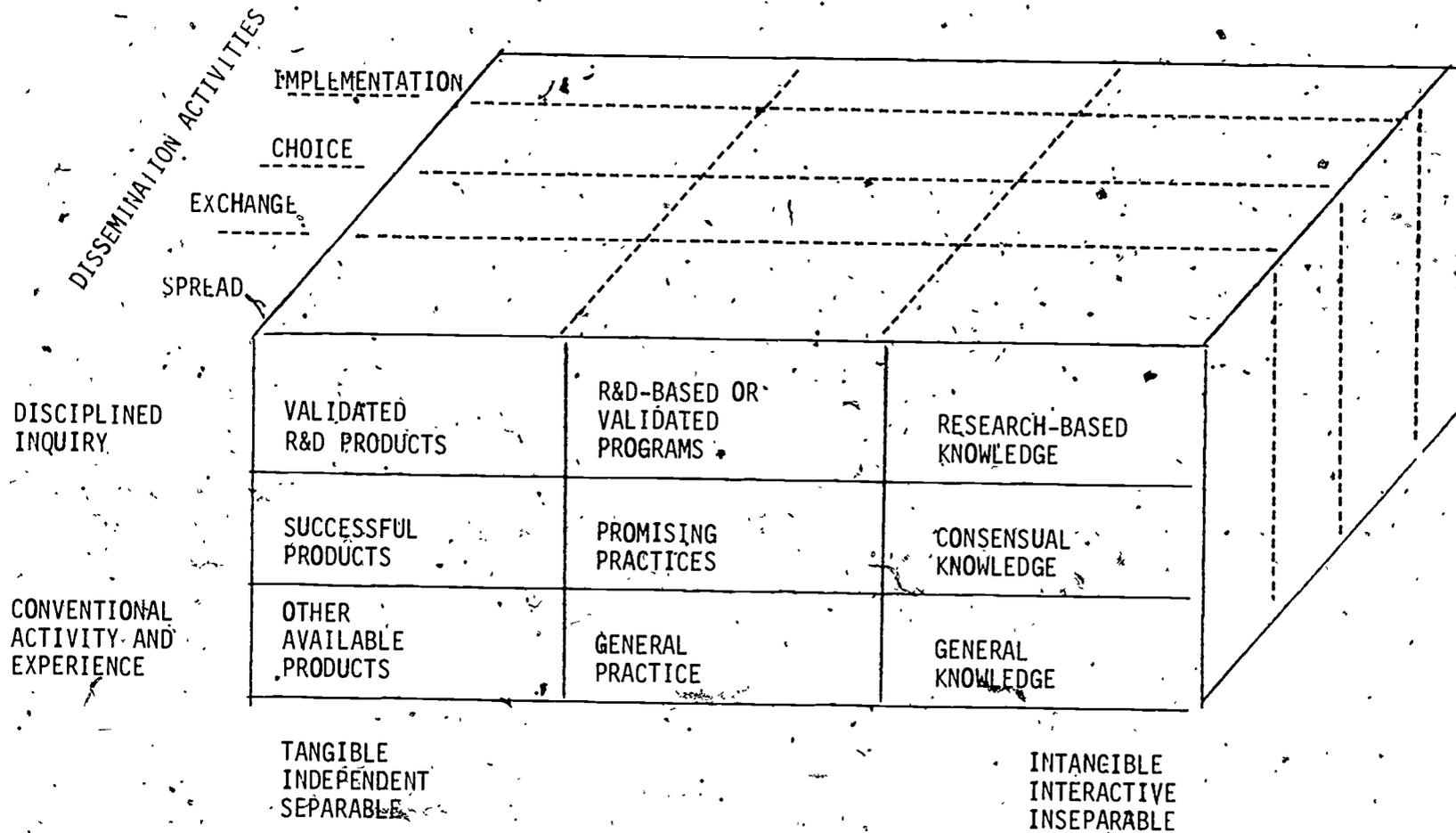
WHAT MAY BE DISSEMINATED

Since the results of research and development are quite different in character if they are school practices, general knowledge, large-scale curricula, or information, different things to be disseminated (which, for ease of reference, we will call "disseminates") may require quite different spread, exchange, choice, or implementation activities. Figure 1 presents a schematic display of the types of "disseminates" considered by the DAG, arrayed along two dimensions: degree of tangibility, independence, and separability; and the degree of disciplined inquiry on which they are based.

Beginning at the top left are the tangible products of research and development (R & D). Progressing to the right, the R & D products shade into R & D-based or R & D-validated programs. As these programs become increasingly intangible, they shade into "synthesized" (practice oriented) research-based knowledge, and then finally into highly intangible, abstract, and generalized knowledge.

Figure 1

A CONCEPTUAL MAPPING OF EDUCATIONAL PRODUCTS, PROGRAMS, PRACTICES, KNOWLEDGE AND INFORMATION WITH THE LEVELS OF DISSEMINATION ACTIVITY



Proceeding across the next row, the same kinds of content are encountered; however, the pragmatic validity of the content at this second level is based far less on the R & D (disciplined inquiry) process and far more on pragmatism. Successful products are usually those that are marketable, profitable, and able to win and maintain consumer acceptance. Promising practices may be purely practitioner innovations that have neither an R & D base nor evaluation data to prove their claims, but that are judged to be promising or worthy by competent educators. Consensual knowledge is not produced by disciplined inquiry or scholarship, but it is accepted as valid by those who must rely on it.

In the last row is encountered a vast "gray" area of relatively unvalidated products, practices, and knowledge. Their validity depends primarily on the prevalence of their use and on their utility for specific users. Credibility and utility are the operating criteria that separate the useful from the useless.

The second and third rows represent the broad categories of "disseminates" that most often predominate in the user point of view. The DAG recognizes that there is a heated difference of opinion about how much disciplined inquiry or research base "disseminates" ought to have to warrant dissemination. The DAG's concern to represent adequately the user perspective led it to include all three rows. The cube

does not represent everything that is supposed to be disseminated. It is a conceptual mapping of what may be considered for dissemination.

Figure 1, with the inclusion of the four levels of the definition of dissemination, captures succinctly the scope of the report.

THE OPERATIONAL PROBLEMS

The members of the DAG conducted a careful review of recent documents on dissemination and elicited ideas and suggestions through a questionnaire directed to over 200 individuals and agencies. Synthesizing these inputs, the DAG identified eleven operational problems. The DAG regards these as a necessary, but not sufficient, list. The level of problem statement was chosen to focus attention on problem areas. Precise modifications to resolve any specific instance of one of the problems would need to be worked out for that case. While in different locations particular instances of solutions to some of these problems can be found, in general, educational dissemination has these operational problems.

After each problem statement are a few examples.

1. Target groups for dissemination (particularly decision-makers) are not identified with sufficient precision.

Far too often at the Federal level there is the routine distribution of one (of anything) to each of fifty-seven

SEAs; a couple to ERIC; one to each Lab and R & D Center. Far too often in other parts of the system one copy of something is sent to the Superintendent, to all principals, or to all department heads.

2. The content and form of much of what is disseminated is of relatively poor quality.

With imprecise target groups, that which is disseminated is designed for the general recipient.

Specific approaches to particular groups are rare. Furthermore, limited resources and tight funding periods often make preparation of "disseminates" so hurried that careful design is impossible.

3. The reliance on one-way and single-channel modes of dissemination is not likely to achieve high impact.

Too often blanket dissemination through a single channel (mailings of brochures, for example) is used instead of limited, focused dissemination through several channels.

4. The few mechanisms for practitioner influence and feedback to assist educational dissemination are weak and irregular.

Different organizations, agencies, and programs have consultants and advisors drawn from user ranks, but such mechanisms are rarely carefully thought out.

There are occasional surveys of practitioners but

they are too often very broad and general. Rare is the careful follow-up evaluation of a dissemination effort, and mechanisms for practitioner-initiated influence on dissemination efforts are, for all practical purposes, nonexistent.

5. Few mechanisms exist for sharing among peers, and between different groups of educational specialists.

Teachers and administrators have very limited time for meeting with others--usually a few professional days for attending nearby workshops and conferences, and a few hours at the end of a day. Travel funds to visit other practitioners are severely limited, and often administrators go when teachers might benefit more. Regular meetings across district lines are not common and are rarely carefully planned. Even regular meetings between schools in a district are difficult to arrange.

6. In spite of the enormous number and variety of educational programs and materials in existence, rarely are alternatives readily available to practitioners.

Assembling a large number of alternatives in a single place is expensive and takes a skilled search team, as listings and addresses for obtaining copies of possible alternatives are difficult to obtain.

More often a user (or a curriculum committee) is left to examine the alternatives that happen to have arrived.

7. The practical blocks that impede practitioner access to the existing educational dissemination systems are great.

Computer retrieval systems often require specialized knowledge for access, as well as complex advanced arrangements (e.g., a user number). There are so many different types of dissemination systems handling different materials that it is difficult to know which ones to tap. Repositories for different types of materials are few, scattered, and require time and help to be easily used.

8. The incentives for practitioners to use the existing dissemination systems are weak.

Schools have rather strong disincentives for innovation. More superintendents, principals, and teachers have been fired for innovating than for not. Rarely is the result of searching readily usable in a teacher's particular situation, and time for searching, or for making the necessary adaptations must come out of limited preparation time.

9. Evaluation information for judging among relevant alternatives is insufficient.

Much of what is presently included in the dissemination systems is unevaluated. Even "disseminates" with evaluation information have generally only been tested in a limited fashion in a few places. And, basic information on alternatives is rarely assembled in a fashion to make comparisons and the selection of the most appropriate option easy.

10. Present dissemination systems neglect the encouragement and facilitation of local development, adaptation, and unique mixes of ideas and materials taken from a variety of sources.

Most of the existing dissemination systems are designed for the delivery of complete "disseminates". Rarely are products packaged to be broken apart. Local adaptation and mixing of ideas and materials take place by individual teachers, without assistance, as they can find time.

11. The availability to practitioners of locally tailored training, technical assistance, and on-user-site consultation is inadequate.

Few personnel are committed by states, intermediate agencies, or local districts to providing on-site technical assistance. Money for staff in a school to hire outside consultants is very limited.

Mechanisms to bring experienced practitioners from other sites are very rare.

Correcting the Operational Problems

While there are no simple solutions to any of these problems, action to overcome the problems can be taken. The DAG believes the problems fall into three broad groups:

1. Some have known solutions. The main problem is finding the personnel, resources, and political power to implement the solutions. (The DAG suggests that problems 1, 2, 3, and 5 fall here.)
2. Some have been studied sufficiently to suggest approaches with a high probability of success. In many cases development of these exemplary approaches is underway and, for some, successful demonstrations exist. The task is to extend these successful models. (The DAG suggests that problems 4, 10, and 11 fall here.)
3. The remainder are merely in the conceptual stage, with much more research, development, and searching for exemplary models required. (Probably problems 6, 7, 8, and 9 fall here.)

While successfully dealing with the eleven problems must be a combined effort of national, state, local, and private dissemination efforts, the DAG recognized that its recommendations could only be made officially with respect to Federal activities at the national level. However, to enhance the likelihood that its recommendations would help bring about a broader combined effort of Federal and non-Federal dissemination efforts, the DAG reviewed Federal dissemination activities from two perspectives: how focused

they were on the eleven problems, and whether the Federal efforts appeared to encourage and enhance the likelihood of combined national, state, local and private approaches to their solution.

Federal Dissemination Activities
in Relation to the Problems

Federal activities in dissemination are best discussed in two groups:

1. Dissemination System Development Activities--those explicitly designed to improve dissemination capabilities in education nationally and to serve more than one Federal bureau or group, such as the activities of the Dissemination and Resources Group (DRG) of the National Institute of Education (NIE), and the Project Information Package (PIP) and National Diffusion Network (NDN) activities of the Office of Education (OE).
2. Program-Related Dissemination Activities--those which are attached to some operating program, bureau, or group and serve to disseminate information, products, materials, or knowledge related to or derived from its work, such as the activities of the offices of public and external affairs within the Education Division, or the dissemination activities within the Bureau for the Education of the Handicapped (BEH).

The findings of the DAG's review are:

1/ Dissemination System Development Activities

The DAG finds that the dissemination system development activities are sensible attempts at the Federal level to stimulate the solving or the implementing of solutions to most of the problems, at least on a problem-by-problem basis. Since resources are severely limited, choices have to be made. The DAG finds no need for massive reorganization or redirection of these efforts. There are some difficulties of fragmentation and piecemeal solutions which will be dealt with later.

The DAG recommends that:

A careful mapping of the present activities against the list of eleven problems be carried out by the personnel involved and adjustments made, if possible, to fill any gaps.

As additional resources become available for dissemination, some be targeted on the gaps to provide a balanced and coordinated Federal effort to deal with the problems.

2. Program-Related Dissemination Activities

The DAG finds that those dissemination activities attached to operating programs are in many cases exemplary models deserving much wider use (for example, the handling of special media by BEH). On the other hand, the DAG is distressed by the proliferation of networks,

centers, and different (and often conflicting) regulations and guidelines from the different operating programs. As each separately funded group does its own thing in dissemination, the amount of confusion among users, redundancy, and "reinventing-of-the-wheel" is substantial. The DAG could find only rare and isolated instances of communication between these operating programs and those groups engaged in the Dissemination System Development activities. There appeared to be no organized way for the groups engaged in the Dissemination System Development activities to assist in spreading more broadly the effective models developed by operating programs, or to influence their activities so they would link together into a coherent nationwide system.

The DAG, therefore, recommends:

- The groups engaged in Dissemination System Development be charged with examining for possible wider use the workable dissemination approaches that have been developed in the operating programs.
- The groups engaged in Dissemination System Development be charged with providing (and developing the capacity to provide) technical assistance to operating programs so that their dissemination activities fit into a nationwide dissemination system.

Federal Dissemination Activities in Relation to Encouraging Combined National, State, Local and Private Dissemination Activities

The DAG finds that very few of the existing dissemination activities encourage the kinds of combinations of existing

networks and capabilities that it believes are essential to the solution of the eleven problems. Rather, the different bureaus and groups maintain separate dissemination efforts, and even within the groups engaged in Dissemination System Development activities, the problems are addressed mostly in a piecemeal fashion.

The DAG commends recent efforts to provide money for planning (e.g., the state capacity-building grants; the limited competition among Labs and Centers for an R & D Dissemination and Feedforward System). However, the DAG is concerned that there not be the development of competing Federally-funded networks in a state. While limitations of funding and political exigencies have shaped the present multi-centered strategy, the DAG believes that steps should be taken immediately to see that such planning efforts strengthen each other, rather than compete.

The DAG thus has focused its recommendations on steps to be taken to increase the "fit" between the many different, ongoing activities at the Federal level, and on bringing about a complementarity between Federal activities and the numerous discrete developments that states, local districts, and private groups are undertaking to improve their dissemination efforts.

The remainder of the report is focused on such steps. The DAG believes that in light of the rapid increase of funds

going into dissemination and the long-range implications of many of the dissemination developments presently being funded at various levels, coordination and long-range planning are now a must. Increased coordination now can not only assist in eliminating some overlap and increasing the synergy between similar activities presently conducted almost in isolation, it can insure that present Federal efforts will combine with other national efforts, and state and local efforts some years hence, to complement each other and interrelate effectively.

CREATING A NATIONWIDE SYSTEM

More than dealing with each problem independently, correcting the problems nationwide involves working with, adjusting, and interlinking the many existing dissemination activities and systems, coordinating them, and in a few cases creating new system elements. Unfortunately few mechanisms exist to bring about such overarching coordination, and several weaknesses in the nationwide dissemination capacity make overall coordination extremely difficult.

The DAG identified seven steps that it feels must be taken on a nationwide basis to eliminate these general weaknesses in the existing dissemination efforts.

These steps are:

1. Establish consistent definitions of dissemination in law and in practice.
2. Establish planning mechanisms at the Federal, national, regional, state, and sub-state levels.
3. Establish administrative mechanisms at the Federal, national, regional, state, and sub-state levels.
4. Initiate widespread training programs.
5. Improve research, development, evaluation, and the collection of descriptive data.
6. Increase financial resources for dissemination, and provide for flexibility of use.
7. Develop a shared nationwide vision of a comprehensive educational dissemination system.

The DAG recognized that Federal efforts alone cannot correct these weaknesses, and yet it had no authority to make recommendations at other than the Federal level. To enhance the likelihood of broad recognition of the need for these steps, the next portion of the report explains each need in more detail. A later section focuses on the Federal role in achieving these steps.

1. Establish Consistent Definitions of Dissemination in Law and in Practice

Federal, state, and local governmental agencies and institutions share responsibilities for public education. Lack of consistent definitions of dissemination have been one of the major stumbling blocks in establishing a clear understanding of what each educational partner

should do in generating commitment to appropriate roles and relationships, in accepting leadership, providing technical assistance, and in assembling financial support for improving educational dissemination.

Lack of consistent definitions makes planning and administering dissemination doubly difficult. Not only is there disagreement about what constitutes an appropriate level of dissemination activity by different agencies and programs, lack of consistent definitions even inhibits collecting accurate information about what is being done.

Accountability and incentives are almost impossible to establish. Until there are consistent definitions, there will continue to be fragmentation, duplication, and major gaps in dissemination services.

2. Establish Planning Mechanisms

Dissemination has, to this point, been left to each organization, contractor, or group to manage on its own. But to bring about the needed interlinking and complementarity of the existing systems, various planning bodies will be needed at national, regional, state, sub-state, and local levels. These will probably be ad hoc consortia.

3. Establish Administrative Mechanisms

For any integration or coordination at any level of the presently separate dissemination systems, some administrative mechanisms will be needed at the Federal, national, regional, state, sub-state and local levels. Their nature should vary depending on the particular mix of functions, allocations of these functions to different dissemination agencies, and the amount of coordination needed, but in order to bring about a nationwide system, administrative mechanisms will be needed.

4. Initiate Widespread Training Programs

Any major effort to improve educational dissemination will require special provisions for training and upgrading personnel. No system can function without people who are cognizant of the requirements of the system and trained to provide services necessary for its functioning. Yet little is found in either the pre-service or in-service training of teachers to enable them to be better users, and the number of training or academic programs with a major concentration on dissemination are few.

A comprehensive dissemination system will require people knowledgeable about:

- management and execution of information storage and retrieval procedures.

- . establishment of standards for the determination of the quality required of material to be included in a system.
- . reaching out to establish an awareness of the services the system can provide and developing a desire on the part of clients to use it.
- . assisting clients in defining their needs.
- . assisting clients in comparing, interpreting, and using knowledge.
- . arranging for contact and assistance between clients and specialists (brokering).
- . assisting clients on-site in overcoming practical problems of implementation of a program.

Both conceptual background and some supervised skill development are necessary for full performance.

5. Improve Research, Development, Evaluation and the Collection of Descriptive Data

While NIE has recently taken substantial steps to gather descriptive data, planning for dissemination is handicapped severely by the meager amount of even basic descriptive information presently available, such as which agencies spend how much money doing what kinds of dissemination work. Research, Development, and Evaluation (R, D, and E) on dissemination are similarly inadequate for any major effort to attack the eleven operational problems.

6. Increase Financial Resources and Provide for Flexibility of Use

Insufficiency of resources for dissemination has plagued the field for decades. Since dissemination has only very recently been seen as a central function of educational improvement, budget and planning activities throughout the educational establishment have continually subordinated dissemination to some other activity more consistent with the traditional purpose of the institution or group. Indeed, until recently, Federal contract officers have often resisted the use of any funds for dissemination.

Inability to flexibly use resources is a similar problem.

At the Federal level, all dissemination resources are controlled at the bureau and program level, so none is available (except in special cases) for general use.

When states seek to use their Federal dissemination resources flexibly to provide the coordination necessary for comprehensive educational dissemination services,

they discover that legal constraints and program guidelines severely limit their ability to use resources from one Federal source in a general fashion. Often the funds can be used only for clients who were explicitly qualified to benefit from the original program.

7. Develop a Shared Nationwide Vision of a Comprehensive Educational Dissemination System

In order to bring together the various dissemination networks and activities over time, a long-range vision of the future is needed. This vision should lay out as clearly as possible what degrees of autonomy and patterns of coordination ought to be sought optimally at national, regional, state, sub-state, and local levels; what agencies and organizations ought to have which roles; what types of networks or interorganizational relationships are needed; the nature of the skills the personnel must possess; the needed materials; needed financial support; management and coordination mechanisms required; and the processes by which the visionary solution would operate.

A POSSIBLE VISION

Visions of the future are extremely valuable as conceptual organizers if they are not taken literally. The vision presented here is the one the DAG eventually came to, and much of the rest of the paper speaks from this image. While its insertion at this point is designed to provide a gestalt for understanding the following specifics, there are alternative visions and many possible variations on this one. This future vision is directed to improving dissemination to practitioners in elementary and secondary public schools.

consistent with the overall limitations of this report. The vision deals with three levels: the state, the region, and the nation.

In the DAG's vision, through an ad hoc planning group of all the agencies within the state, public and private, that engage in educational dissemination, each state would create its own comprehensive and coordinated state dissemination system, voluntarily meeting certain criteria and specifications established cooperatively with Federal leadership so that it is compatible with similar systems in other states, but designed and managed in a fashion that is uniquely responsive to the particular conditions in the state.

The intent of building an interrelated state dissemination system would be to more effectively assist practitioners in improving education at the local level. This would be done by giving the practitioner increased access to information, to materials, to assistance and most importantly to increased control over the way in which these impact the life of the school.

Given their legal responsibilities, State Departments of Education would be expected to play the lead role in convening the ad hoc planning groups. In each state system as clear and complementary a role as possible would be established for all existing public and private agencies engaged in educational dissemination, including but not limited to:

the state department of education; colleges and universities; local and intermediate education districts; non-public education systems; R & D laboratories or other contracting agencies; publishers; and educational associations at all levels.

Insofar as possible, each state system would build on existing strengths and established activities of the groups and agencies involved.

Financial support would be guaranteed through set-asides of Federal and state funds, tax assessments, and user charges where appropriate. Each state system would set up ways to pool flexibly some portion of the money from each of the member agencies to manage and coordinate the system, and to fill gaps in the system wherever there was the most need.

Safeguards would be established to protect LEA control over the dissemination resources designed to serve the LEAs, and to protect the interests of any targeted group (e.g., the handicapped, Native Americans, Spanish-speaking) if resources intended for them were incorporated into the state system.

Careful attention would be given to each of the eleven problems, all four levels of the definition of dissemination, and the full range of "disseminates." Target groups, of various types, particularly decision-makers, would be identified and the listings regularly updated. Expertise

and assistance in the design of "disseminates," and the planning of effective strategies would be provided. Regular needs-sensing, feedforward, and feedback mechanisms would provide for the continued monitoring and improvement of on-going dissemination activities. Regular travel among peers to observe exemplary activities and to share experiences would be encouraged and might even be sponsored.

Assistance in choice and implementation would be easily available to every LEA in the state through some form of assistance centers.

These centers would be established through ad hoc planning groups at the sub-state level (or designated if something like them--teachers centers, intermediate education districts, curriculum libraries, resource centers--already exist), with basic support from state and local funds, sheltered from performing regulatory functions, and staffed to provide assistance of every type. For example, assistance might be provided in searching, in making (or making available) comparative evaluations of potentially useful materials and programs, in serving as a broker between an LEA and outside consultants or exemplary sites where a new program might be observed; in providing or arranging for needed training programs on the LEA site or at some other location; in maintaining a resource collection; in maintaining extensive outreach and involvement programs; and in encouraging local

development and local problem solving by arranging for organizational development specialists or other forms of on-site technical assistance when desired.

In conjunction with regional and national efforts, each state system would have available a substantial R, D, and E capability, focused on improving the system, and training programs for the assistance center personnel to insure the regular updating of their familiarity with new resources which might be appropriate to an LEA's needs.

At the regional (multi-state) level again, an ad hoc planning group made up of agencies with a regional focus, such as the OE (or Education Division) regional offices, regional laboratories and R & D centers, major universities, larger publishers, some professional associations, some private contractors, and, of course, representatives from the states in the region would design appropriate interstate dissemination mechanisms for exchanges, meetings, large-scale R, D, and E, and associated training.

At the national level non-Federal agencies with national dissemination concerns would work with a Federal Division-wide Dissemination Policy Council (DPC). The DPC would coordinate Federal educational dissemination activities to encourage and support the nationwide dissemination system.

A data collection and policy development capability, built on the data each state and region provides, would map out

the direction of longer-range improvements. The dissemination programs at the Federal level would support various forms of research, development, experimentation, and demonstration of new approaches to dissemination. Certain capacities, such as the ERIC system, which demand massive resources and are dysfunctional if broken up, would be run nationally. Individual bureaus and programs at the Federal level would continue to have dissemination responsibility for their own information and products, but they would disseminate these through the nationwide system, their resources thus going to the enhancement of the system.

Major educational activities funded nationally which are administered at the SEA level would support the dissemination system in each state through providing some percentage of funds for dissemination, and through allowing flexible use of some portion of these funds.

OE (or Education Division) regional offices would have the responsibility for serving as a general source of materials, information, and technical assistance on all flow-through Federal programs, and for providing technical assistance to the SEAs with respect to the use of flexible financial support.

Finally, each state and region would establish its own procedures for encouraging, recognizing and "packaging" exemplary practices in its own state or region for export to other

parts of the state and nation. Insofar as possible a breadth of user-relevant documentation and evaluation data would be included.

Different states and regions would structure their systems differently. For example, some states would have the SEA administer the state system; others would contract out this responsibility to a university, regional laboratory, or other organization. Some might have the state establish separate intermediate or sub-state agencies to provide assistance to local districts; others might allocate this function to colleges of education, larger local districts, private contractors, or some combination of these. Some regions would have regional laboratories coordinate the multi-state functions; others would have major universities, or some other agency perform these functions. The key to creating a nationwide system is to allow maximum flexibility within whatever constraints are necessary to provide compatibility of all of the parts.

The principal characteristics of this vision are:

1. Ad hoc planning groups involving all of the relevant agencies at the national level, Federal level, regional level, state level, sub-state level and local level would be charged with planning an integrated dissemination system to serve LEAs.

2. At each level of the system, plans would be made for identification, quality control, storage, transformation, and access to "disseminates" by practitioners.
3. State systems of educational dissemination, each uniquely structured for a state's needs, would constitute the core of a nationwide dissemination system.
4. National interest group dissemination systems (e.g., publishers, professional associations, CEDaR, Council of Great City Schools, EPIE, colleges of teacher education, libraries, etc.) would maintain their separate character, but would participate in state and regional planning efforts and dovetail with the various state systems in suitable ways.
5. The Federal government would provide leadership and resources for planning and bringing about the nationwide system. It would operationally maintain certain portions of the nationwide system (for example, ERIC), and through research, development, and evaluation projects encourage improvements in the system.
6. Regional agencies (e.g., OE (or Education Division) regional offices, labs, and centers, larger universities, etc.) would establish and maintain multistate dissemination activities, complementary to state dissemination activities.

7. Within each state dissemination services would be provided through intermediate service units to all districts too small to be their own service unit.
8. Training programs to turn practitioners into effective users, and to prepare dissemination specialists would be greatly increased, through incorporating training within existing teacher training curricula and providing on-the-job training, special workshops and institutes, and degree programs for specialists.
9. Federal, state, local, and other agency funds would provide support for the coordinated system, through specific allocations, charges for use, and set-asides.

THE FEDERAL ROLE IN THE CREATION OF A NATIONWIDE SYSTEM

As was indicated earlier, on a problem-by-problem basis the dissemination activities of groups engaged in Dissemination System Development activities cannot be greatly faulted. Each of the eleven operational problems is, in varying degree, the object of some research, development, or demonstration effort.

It is with respect to bringing about the necessary cooperative action among the various actors that Federal efforts are weakest. While the Federal government cannot by itself correct any of the weaknesses that presently make overall

coordination and "fit" of dissemination activities very difficult, it can, through leadership, support, and the careful adjustment of Federal activities in dissemination, do much to bring about the correction of the weaknesses.

The DAG recommends the following Federal actions toward correcting the weaknesses:

1. Establish Consistent Definitions of Dissemination in Law and in Practice

This is one area in which Federal action could very nearly solve the problem nationwide. If the Federal government adopted consistent definitions of dissemination for each program and relevant piece of legislation, and established appropriate levels of activity (based on the conceptual definition in this report) for each program and relevant statutory authority, chances are high that states and regions would also adopt consistent definitions, and share the same conceptions of the processes that the definitions label.

To establish consistent definitions of dissemination, the DAG recommends:

- Incorporating the comprehensive conceptual definition of this report into the general law governing Education Division activity, i.e., into the General Education Provisions Act (GEPA).
- Employing consensus building processes to develop consistent but appropriate specific definitions for each relevant Federal law, set of regulations, and program guidelines.

- Taking steps to bring about the general use of the general conceptual definition, and the specific applications of the definition to particular legislative authorities.

Possible steps to consensus building are:

- Hold working conferences involving constituents from all groups affected by a piece of legislation to develop an appropriate specific definition, (mix of levels and activities) for each relevant law.
- Publish such specific definitions and invite interested parties to criticize them.
- Hold "hearings" to receive suggestions, or objections to, any proposed definition.

Possible steps to bring about general use of the consistent definitions are:

- Require dissemination planning, at the Federal level to be organized according to the general conceptual definition.
- Train program officers to use the general conceptual definition as a reference point in interactions with regions, states, contractors, and others about dissemination.
- Identify instances in which ongoing dissemination activities do not appear consistent with the definition, and provide technical assistance to move toward consistency.

2. Establish Planning Mechanisms

While the Federal government does not presently have sufficient resources to support the needed planning mechanisms, existing planning funds could be used in a more coordinated fashion. They could also be used more as

an inducement than at present to generate the needed additional planning resources from state and local sources.

The DAG recommends, therefore, that the Federal government:

- Initiate efforts to create ad hoc planning groups at the national, regional, state, and sub-state levels, consisting of representatives of all the agencies presently engaged in educational dissemination.
- Provide initial resources to develop plans for the state and regional components of a nationwide dissemination system.
- Provide incentives for state and local resources to support the planning efforts.

Possible approaches are:

- General grants for the creation of planning groups at each level.
- Specific grants or contracts laying out the nature of the planning group and the criteria a plan must meet.
- Incentives so that if regions, states, or intermediate districts develop a dissemination system which creatively meets the area's needs and the requirements of a nationwide system, special benefits result.
- Matching-grant incentives so that Federal planning support is contingent on a certain amount of state and local support.

3. Establish Administrative Mechanisms

If administrative mechanisms existed now at the national, regional, state and sub-state levels, many of the

recommendations of this report could be more easily implemented.

The DAG therefore recommends that the Federal government initiate efforts to:

- Induce the development of administrative mechanisms which can handle the coordination requirements of the national, regional, state, and sub-state components of the nationwide system.

Possible inducement mechanisms are:

- Reorganize the management of dissemination at the Federal level so that administrative mechanisms for coordination at regional, state and sub-state levels would be administratively efficient and effective.
- Revise Federal guidelines and regulations to permit flexible use of some portion of the dissemination resources if an adequate administrative mechanism exists.
- Change the laws and regulations to require administrative coordination of the various dissemination activities.

4. Initiate Widespread Training Programs

Training programs are expensive and yet in other fields Federal support for training induced large secondary contributions of resources from states, and stimulated enormous growth. Therefore, because of the time lag before graduates are turned out by any training program (which becomes substantial in developing highly trained specialists), and because of the special importance of

training as a catalyst to further activity, the DAG recommends that:

- The Federal government initiate efforts to substantially increase the number of trained dissemination personnel.

Possible steps to accomplish this are:

- Establish short-term workshops and tuition grants.
- Encourage the establishing of university specialties in dissemination through providing training grants, scholarships, and loans, particularly field-based or competency-based degree programs.

Equally important is training for practitioners to become more enlightened and effective users of dissemination services. The DAG recommends:

- The Federal government initiate widespread user training programs in dissemination.

Possible steps to accomplish this are:

- Encourage such training programs through teacher centers or teacher assistance centers.
- Provide materials for inclusion in regular training programs for teachers, particularly for those programs for supervisors or others returning to upgrade skills.

5. Improve Research, Development, Evaluation and the Collection of Descriptive Data

This area is one that the DAG feels is most appropriately supported by the Federal government. Yet, at present,

the resources are not adequate. Nevertheless, even though these recommendations imply vastly increased resources and possibly new legislation, the DAG recommends that:

- The level of research activity in educational dissemination be increased substantially and organized into a coherent agenda so that the results are cumulative.
- The level of development in dissemination be increased and focused on the requirements of creating a nationwide system.
- Evaluation of dissemination efforts be part of all significant dissemination contracts. In particular, experiments should be undertaken to improve the quality of evaluation information on materials and products.
- The gathering of basic descriptive data on agency and individual involvement in dissemination be immediately undertaken, and aggregated to guide policy makers at the local, sub-state, state, regional, and national levels.

Possible steps for achieving these are:

- Initiate capacity-building programs for agencies presently engaged in research, evaluation, or development of dissemination.
- Engage in consensus-building activities and prepare a more-or-less directive set of RFPs on the results.
- Undertake comprehensive reviews of the status of R, D, and E on dissemination and prepare RFPs on what appear to be obvious gaps.
- Provide direct grants for R, D, or E on dissemination to practitioners and practice-oriented agencies.
- Support planned variation, field-based tests of strategies and tactics of dissemination.

- Designate (or create if necessary) national research centers for R, D, or E on dissemination, or one which covers all three areas.
- Establish in the Education Division a capacity for census-taking and institutional research on dissemination.

6. Increase Financial Resources and Provide for Flexibility of Use

While Federal resources alone are insufficient, there is no excuse for Federal dissemination activities not to be models for state and local emulation. The DAG therefore recommends that:

- Explicit allocations of Federal resources to dissemination be established in all appropriate Federal programs.
- Provision be made for the flexible use of some portion of such resources at the Federal, regional, state, and sub-state levels.
- Legislation be prepared to authorize and appropriate funds for increased R, D, and E activity, and increased training for dissemination.

Possible steps for achieving these recommendations are:

- Require as a matter of Education Division policy that each program set aside some portion of its resources for dissemination (unless obviously inappropriate) and, given the four-level definition of dissemination, that the amount be consistent with the kind of dissemination activities appropriate to the work of the program.
- Of the dissemination resources set aside, explicitly permit some percentage of it to be used flexibly by agencies and institutions at the Federal, national, regional, state, and sub-state levels for coordination and administration.

Revise the laws and regulations, particularly those involving flow-through funds to establish percentage set-asides for dissemination and administrative coordination at the Federal, regional, state, and possibly sub-state levels.

7. Develop a Shared Nationwide Vision of a Comprehensive Educational Dissemination System

Federal leadership in developing the shared vision is absolutely essential. The DAG therefore recommends that:

- The Federal government initiate efforts to develop a shared vision of what a comprehensive, nationwide dissemination system would entail.

As with establishing the definition of dissemination, there are both consensus-building activities and approaches to getting this consensus vision widely used.

Possible steps to building a future vision are:

- Hold working conferences involving representatives from the relevant agencies to develop a vision.
- Publish the vision included in this report and invite interested parties to critique it.
- Hold "hearings" to receive suggestions, or objections, to the proposed vision.

Possible steps to bringing about general use of the vision are:

- Promote the consensus vision as a desirable goal.
- Derive guidelines from the vision to serve as a framework for regional, state, and sub-state plans.

- Incorporate the vision and the guidelines into policy and management of dissemination at the Federal level.
- Incorporate the vision and the guidelines into laws and regulations governing expenditures for dissemination.

MANAGEMENT OF DISSEMINATION AT THE FEDERAL LEVEL

The thrust of this report is that the appropriate role of the Federal government in dissemination is to strengthen and support existing agencies through leadership, development and demonstration programs, and research and evaluation. Given the limited resources, the DAG also finds little fault with the activities of the Dissemination System Development programs in addressing the operational problems of dissemination on a one-by-one basis. Thus, the management recommendations are focused on the needed planning and coordination functions at the Federal level to insure that the separate activities fit into a comprehensive system.

Since the Joint Dissemination Review Panel (JDRP) is already operating and uses the DPC to set policy or resolve policy disputes, the DAG did not specifically make recommendations with respect to its functioning. It should continue to function the way it does. In many ways, it is a model for joint OE-NIE activities, and the DAG envisions the proposed Dissemination Program Managers' Panel (see the first recommendation below) operating in a similar fashion. The DAG

did consider calling for states and regions to establish JDRP-like quality control mechanisms, and rejected the recommendation as too specific. Rather, it called for states and regions to provide "a breadth of user-relevant documentation and evaluation data" to accompany any "disseminate" and left it to the states and regions to determine the nature of the mechanism.

The DAG has five major recommendations:

1. Create a Comprehensive Planning and Policy Setting Capacity for Dissemination

The DAG recommends that immediate steps be taken to:

- Establish a planning and policy setting capability in dissemination that is genuinely Division-wide.

Such policy determination and planning would need to address management functions (e.g., accountability, resource allocation, coordination) as well as those necessary conditions for adequate dissemination (e.g., adequacy of resources, research development, and evaluation, financial support, personnel).

Of the possible options for accomplishing this, the DAG recommends:

- The constitution of the Dissemination Policy Council as a permanent body, with a small staff and budget, to set Division-wide policy and to coordinate dissemination planning efforts.

- The creation of a dissemination program manager's panel (managers of all programs in OE and NIE which have dissemination authority) to:

- Bring up dissemination policy issues for resolution by the Dissemination Policy Council.
- Work out operational details in implementing Division-wide dissemination policy.

2. Create a Communication System for Sharing Information Among the Many Individuals And Units Engaged in Dissemination

The DAG recommends that:

- A communication system for sharing information Division-wide be created internally.
- A system for clear communication with clients and the Congress, be established.

The Division's clients presently receive fragmented and sometimes contradictory messages regarding dissemination activities required of them. Great difficulty is encountered in finding information or obtaining regular mailings. Congress is unaware of the barriers and frustration it has created in the multiple and overlapping dissemination mandates established in law.

Possible steps for establishing these communication systems are:

- Have each program conducting dissemination activities contribute information or a regularly updated compendium document describing such activities to a central file.

Establish a single telephone number (possibly an 800 number) as a point of contact for anyone seeking information from the Education Division.

3. Create a Mechanism for Providing Administrative Direction and Coordination to Dissemination Activities

The DAG recommends:

- The immediate creation of a simple administrative mechanism to determine the "fit" between plans and activities in dissemination and overall Division dissemination policy.

Of the possible options for achieving this, the DAG recommends that the administrative mechanism be:

The small staff attached to the Dissemination Policy Council.

Given the administrative complications caused by the time-lag that is inevitable if the administrative mechanism conducts prior review and signs off on formal dissemination plans, the DAG recommends:

- The establishment of a "post-implementation" review as the administrative procedure. This would involve the clear communication to all units engaged in dissemination of Division-wide policy and the criteria by which activities will be judged; periodic reviews of each unit's activities; and the provision of technical support to assist program personnel in dealing with activities which are not consistent with established policy.

The DAG further recommends that:

- The staff to the Dissemination Policy Council organize the post-implementation reviews on a regular, rotating basis.
- Resources be allocated so that the personnel in the Dissemination System Development groups provide any needed technical assistance to other programs.

4. Reduce the Legal Fragmentation, the Duplication, and the Uneven Allocation of Resources to Dissemination Among the Units Charged with Its Conduct

Although the DAG was aware of the organizational problems in bringing about effective educational dissemination, and indeed made its recommendations to deal with most of these, it has not specifically recommended any organizational changes. The DAG believes strongly that the central problems of dissemination are not rooted in organizational difficulties and will not be appreciably overcome by reorganization or clarification of "turf" boundaries.

Nevertheless, the DAG does recommend that:

- During the six-month organizational study mandated by Congress, a contracted management review of dissemination be conducted to recommend organizational adjustments to dissemination activities consistent with the rest of this report.

Although it is not possible, without such a study, to predict which alternatives might reduce the organizational difficulties, two possible illustrations are:

- The drawing together into the same administrative unit in OE of all discretionary programs supporting

innovation in elementary and secondary schools, so as to take advantage of the possibility of increased effectiveness in their working together.

The creation of something like an elementary and secondary FIRSE (Fund for the Improvement of Post-secondary Education); that is, changing the legislation so that there is a general program within OE or NIE to support innovation in elementary and secondary schools.

5. Prepare Legislative Proposals to Develop Critical Portions of the Nationwide System

To this point, the report has concentrated deliberately on those changes which can, for the most part, be accomplished without new legislation. However, it is not the intent of the report to suggest that new legislation is not appropriate, nor that it would not enhance the likelihood of success in creating a nationwide dissemination system.

The DAG recommends that new legislation be developed in four key areas. Three were mentioned in previous sections:

- To incorporate the general conceptual definition of dissemination in this report into the GEPA, and appropriate specific definitions into other relevant authorities.
- To provide much more support for research, development, and evaluation in dissemination.
- To create training programs in dissemination.

The fourth is:

To encourage and support the establishment of sub-state service agencies (or the improvement of ones that already exist) to provide the dissemination link to local schools.

The latter requires more explanation. Of the resources presently committed to dissemination, much more is on the side of spreading materials, ideas, and products than on the side of enhancing the user's capacity to choose rationally from among a variety of options and implement what he chooses. The consumer side of educational dissemination is so weak that the entire system is unbalanced.

As long as most of the dissemination system consists of efforts to push and spread materials and products, the more money the government puts into dissemination, the louder will be the cries of unwarranted government influence, government dictation, and unfair competition.

However, if resources go into the creation of an equally strong consumer side of the system, so that the capacity of users to make rational choices and implement those choices is enhanced, much greater Federal and state resources could support dissemination without raising very legitimate political fears of government influence.

By establishing through legislation a program to encourage and support sub-state service centers to provide consumer services, the system could be brought into balance. Many states have already committed state resources to such developments. It would take only a modest program at the Federal level to greatly expand and consolidate such efforts.

CONCLUSION

♦ The problems of dissemination are not merely technical and will not yield to a merely technical solution of reorganizing or assigning responsibilities differently. The problems are those of a lack of a vision broad enough to involve all of the various actors and agencies in a coherent whole, and the missing system elements to bring such a vision about: shortage of resources and trained personnel, lack of administrative and planning mechanisms, inconsistent definitions of dissemination, and inadequate research, development, and evaluation.

As the vision of this report suggests, the dominant thrusts of many widely scattered efforts can be pulled together into a coherent system. It simply remains to do it.