A series of recommendations to the Director of the National Institute of Education (NIE) is presented. In the main, these focus upon effecting compliance with Congressional intent by modifying the existing programs of the National Center for Educational Communication (NCEC) to conform with the mission, functions and program thrust of the NIE. The paper proposes a comprehensive program of research, development, demonstration and service in the area of dissemination and implementation. In addition, recommendations are made concerning the placement of the operating units of NCEC within NIE's organizational structure. Lastly, a budget is proposed for functions which are to be transferred from NCEC to NIE. (Author)
This paper recommends steps to be taken by the NIE Director to comply with the Congressional intent to "...modify existing programs [of NCEC] to conform with the mission, functions and program thrust of the Institute." It proposes a comprehensive program of research, development, demonstration and service in the area of dissemination and implementation; makes recommendations concerning placement of operating units of NCEC in the proposed NIE organizational structure; and presents a proposed budget for functions to be transferred from NCEC.

Legislative Background

NIE's enabling legislation states that "...the Director is authorized...to...collect and disseminate the findings of educational research...." The report of the Conference Committee further states that:

"The conferees intent is that the whole complex set of dissemination utilization functions that are desirable in this area are a major responsibility of the National Institute of Education. This set of functions should include, but not be limited to, the present and proposed fiscal year 1973 activities of NCEC (The National Center for Educational Communication) such as the following: ERIC, PREP, Publishers Alert, the three pilot state dissemination centers, the program to identify and validate exemplary products and practices. These functions also should include other dissemination activities that might be tailored to the Institute's products and programs in the future. In the transfer of NCEC to the Institute, we feel that the Director must have the opportunity to evaluate and modify existing programs to conform with the mission, functions, and program thrust of the Institute. This range of functions will provide the Institute with an array of dissemination capabilities, from the single most significant machine information retrieval system to the present system of dissemination agents in the field, who work with states, local agencies and teachers to help them apply the best of current knowledge to their problems."
Evaluation of NCEC Programs

Recommendations made in this paper are based on:

- Review of NCEC documents provided by NCEC staff
- Briefings by NCEC staff
- An evaluation of NCEC's Communications Support System conducted by the RAND Corporation under contract to NCEC
- "Recommendations for the Dissemination and Utilization Program of NIE," prepared by William Paisley
- An "Evaluation of the Impact of Educational Research and Development Products," conducted by AIR under contract to OPPE
- Recommendations to NIE on "Publishing in Education," made by the Association of American Publishers
- Recommendations on Marketing made by a panel of marketing experts convened by NIE
- Draft Recommendations made by a panel of experts chaired by Dan Weiler of the RAND Corporation called by NIE to consider the problems involved in transfer of NCEC to NIE

Principal Recommendations of External Evaluators

- The ERIC System and related components of the Communications Support Division should be substantially reorganized and consolidated to improve effectiveness and efficiency of operation (RAND Report)
- Diffusion, Implementation and Communication with users should be integrated with development of new products (AIR Report)
- All Dissemination and Utilization programs should be introduced as experimental or provisional in nature, subject to modification after evaluation (Paisley)
- Current hypotheses about dissemination and implementation are not based on empirical evidence. Case studies should be conducted to provide the basis for workable hypotheses (AIR)
• Inasmuch as many factors in successful dissemination and utilization have yet to be researched and understood, NIE should support continuing research on the dissemination and utilization process. (Paisley)

• The nature of the market for educational innovations is not well understood. Analytical studies of the marketing system, including the constraints on commercial publishers and the environment of educational decision-makers, should be conducted. A development program should be devised to alter the constraints so as to facilitate implementation of proven innovations. (AAP, Marketing Panel, and Weiler Panel)

• NCEC's Program in "Best of Current Practice" has not addressed significant questions related to effects of different combinations of resources and not given potential replicators a reasonable indication of probabilities for success in their own district. Since no practical guidance for replication is provided, it is little wonder that program replication does not result. Serious attention must be given to the information collection and dissemination structure of the effort. (Weiler Panel)

• Large scale expansion of the Education Extension Agent Program should be postponed until more is known about the best means to effect implementation of R&D results. (Weiler Panel)

• The need for and uses made of educational information are directly related to the capacity to act on that information. NCEC has apparently assumed that provision of information alone is sufficient to promote change. NIE must analyze the present incentive system and promote changes in that incentive system in order to stimulate the demand for the products of educational R&D. (Weiler Panel)

General Considerations

NIE's mission is not only to conduct research and development, but to effect improvement in American education. NIE must therefore not merely disseminate the results of R&D; it must seek to promote implementation of the results of R&D, for its success will ultimately be measured by the contribution it makes to educational practice.

NIE therefore proposes to allocate a major share of resources in each of its operating bureaus to research, development, demonstration and service in the area of implementation. A major source of these resources is the
transferred authority for the functions managed by NCEC. The briefings, evaluation studies and recommendations listed above represent the first step in a concerted effort on the part of NIE Planning Staff to adapt the NCEC program to the mission, program and organization of NIE, as required by Congress.

On balance, the experts consulted by NIE--some of whom were engaged by NCEC--recommended significant changes in the NCEC program and seriously questioned the validity of fundamental premises of its strategy, in particular the assumption that lack of information is the most serious impediment to significant change.

A school principal may know that rationality would argue for the use of curriculum X, but he is unlikely to express much interest in knowing more about X, much less implementing it, if he feels that his superintendent and fellow principals won't approve the new curriculum, parents won't approve of a departure from the tried-and-true, the state department of education won't put the new texts on the adoption list, the audio-visual department won't purchase the films, the local teachers college won't grant credit to teachers preparing to teach it and the district purchasing office won't be able to deliver it for a year or more.

Similarly, an educational publisher may know that a prototype multimedia curriculum produced with NIE funds is more effective than anything on the market, but he won't be likely to publish it if he believes that the conservative adoption procedures of the adoption states will lead them to turn it down, if the curriculum includes film materials that must be sold separately to audio-visual departments, if the system is too complex for his salesmen to explain quickly to the innumerable committees that make purchasing decisions, or if he must risk large amounts of scarce capital to build an inventory of materials substantially different from materials educators have purchased before.

These are not information problems. They are structural problems that any serious effort at implementation must address.

NIE proposes to approach these problems by conducting a carefully designed program of research into the problems associated with implementation, conducting a series of experiments exploring the relative merits of different approaches to implementation, mounting demonstrations of those approaches that prove most successful, and improving current NCEC information services to the field. Development of this comprehensive effort will go forward with continuing consultation with chief state school officers, publishers, practitioners, state legislators and other directly affected groups. Specific programs in the implementation area proposed by NIE are described below.
NIE Implementation Program

Needs Assessment

NIE proposes to expand substantially the needs assessment program of NCEC to make it more useful as a major tool for NIE planning. NIE will expand that program to:

1. Assess the variety of ongoing information collection efforts.

2. Consider the feasibility of their coordination.

3. Design and initiate whatever supplementary information collection efforts are needed.

4. Plan a format for synthesis and presentation of Needs Assessment Information.

Information gathered from NCES, the Bureau of the Census, the Labor Department, private polls conducted by national survey organizations, etc., will be used to create a major program of Educational Needs Assessment.

Data collected will include:

1. Information on the educational problems of greatest urgency as seen by local educators.

2. Data on demographic trends and societal events and changes in values that might help predict and prevent future problems.

3. Surveys of popular attitudes covering what each of the large constituencies of education believe is important, and what kinds of programs they prefer.

4. Data on educational performance in relation to broad problem areas such as central-city schools, handicapped and disadvantaged students, use of resources, and levels of citizen participation in education.

Such information will provide a picture of emerging and receding problem areas and will help assure that NIE programs are responsive to national concerns.
Identification of Successful Practices and Demonstrations

Over the last few years, educational practitioners have pressed the educational research and development community for judgments concerning new developments that have proved their utility and may be widely adopted or adapted with safety. NCEC has developed a program to meet this need. The Weiler Panel, however, noted several important weaknesses in the methods employed by NCEC to identify successful practices in a manner that would permit the practicing educator to judge the appropriateness of the innovation for his particular circumstances. NIE proposes to continue this important program, and to conduct a related program of research and development designed to ameliorate and eventually eliminate its weaknesses.

Communications Support System

The ERIC system and related activities of the communications support system of NCEC are intended to provide a high quality, easily accessible data-base for educational decision-makers throughout the country. At the request of NCEC, the RAND Corporation recently completed an extensive study of the ERIC system and made a series of recommendations intended to render the system more responsive to the needs of the education community. The RAND study found ERIC to be seriously deficient in meeting its own objectives and recommended reducing the number of ERIC clearinghouses, improving central administration, evaluating and synthesizing the data base, expanding the service function, tailoring the product to the user, and evaluating the system's overall effectiveness. NIE proposes to continue this important program, and, after more intensive review of the RAND recommendations, to modify it as required to optimize its operation.

Research and Development on Implementation

Virtually all external evaluators were agreed that extensive research and development is required before we can be confident about recommending particular approaches to implementation. NIE proposes to mount a comprehensive program to explore structural features of American education that promote and impede implementation, and to develop new approaches that will promote and accelerate implementation of tested improvements. Specifically, NIE will:

1. Develop an experimental design to test the educational extension agent program now in pilot stage. Existing commitments in connection with this important program will be met and the program will be slightly expanded
and modified to allow for a test of alternative models of extension agent operations. Major expansion of this program will await careful examination of the effects of the alternate models.

2. Provide funds to developers of new materials to explore methods of integrating the processes of research, development, evaluation, and implementation, as recommended by the AIR study.

3. Conduct an analytical study of the educational system to determine how to create more demand for the products of the R&D process; as recommended by the Association of American Publishers, the Marketing Consultants, and the Weiler Panel.

4. Develop programs to increase incentives of educators to improve educational systems, and to eliminate constraints on educators who wish to improve their programs; as recommended by the Weiler Panel.

5. Design experimental programs, including television, to stimulate interest in and increase awareness of new approaches in education; as recommended by the Weiler Panel.

6. Study the reasons for success and failure of implementation programs connected with earlier curriculum programs, particularly those of the National Science Foundation; as recommended by the Weiler Panel.

Organization

The NCEC organization was designed to fit in functional relation to other activities of USOE. In considering the transition of NCEC to NIE, NIE planners considered the possibility of maintaining the present structure of NCEC as an independent unit within NIE, but rejected that option since implementation is integrally related to the functions of all NIE operating units and would be significantly reduced in its impact if separated from ongoing R&D programs. Accordingly, the planners recommend the following assignment of implementation programs to NIE organizational units in order to preserve the organizational integrity and effectiveness of NIE:
Program Unit

- Needs Assessment Policy Analysis Unit
- Identification of Successful Practices and Demonstrations Task Force on Instructional Support Systems
- Communication Support System Bureau of Resource Development
- Research and Development on Implementation Bureau of Directed Programs

Budget Request for FY 1973

The following tables compare the NCEC FY 73 budget request with the NIE proposal for use of these requested funds:

NCEC Request

(a) Educational Extension
   Agent System ----------- $ 9,475,000
(b) Communication Support
   System --------------- 5,275,000
   $14,750,000 (to be transferred to NIE)
(c) General Program
   Dissemination ----------- $ 750,000 (to remain with USOE)

NIE Proposal

(a) Needs Assessment ----------- $ 1,000,000
(b) Information Services
   (1) Identification of Successful Practices and Demonstrations--- 3,325,000
   (2) Communication Support System ---- 5,275,000
(c) Research and Development on Dissemination ---- 5,150,000
   $14,750,000