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ABSTRACT

A series of options open to the National Institute of Education (NIE) for coordinating its research and development function with other federal agencies active in educational research and development are presented in this document. Background information in topic outline form discusses: (a) brief synopses of major sponsors of educational research and development within the federal government, (b) examples of existing coordination systems, and (c) a framework for interagency coordination. The fourth section presents a series of options for consideration in determining the procedure whereby NIE can coordinate its research and development activities with other agencies. The last section outlines three suggested coordination program models combining mechanisms discussed in the preceding section. No recommendations are presented. A two-item bibliography and appendix with agency coordination contacts are included. (Author/MJM)

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National Institute of Education

Planning Unit

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COORDINATION WITH OTHER FEDERAL AGENCIES: OPTION IDENTIFICATION AND ANALYSIS

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November 1972

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CHAPTER I

INTRODUCTION AND OVERVIEW

This paper is addressed to one of the functions set down by the Congress for the National Institute of Education, "to promote the coordination of research and research support within the Federal Government."

NIE should coordinate its planning and implementation activities with other agencies engaged in educational R&D so as to encourage a unified, continuous and consistent direction and purpose. Of importance is the need for the NIE to establish and maintain a system of information flow between the various agencies conducting educational R&D by:

a. Establishing the informational needs;
b. Stimulating the use and application of information;
c. Developing the mechanism for information collection and dissemination;
d. Developing standards and formats to be used in information transmittal; and
e. Identifying sources of information.

To accomplish the coordination function, NIE must not only develop an effective informational sharing system across the Federal agencies engaged in education-related R&D; it must also encourage all agencies engaged in education-related R&D to define more clearly their missions and areas of responsibilities within the total R&D effort; whenever possible, encourage the establishment of joint planning, program development, and management within areas of mutual interest between agencies; and encourage short-term interchange of personnel between agencies having comparable agendas and interests.

Coordination of educational R&D effort among Federal agencies is a real issue as reflected by the number of agencies involved in R&D activities and funds allocated in support of those activities. The President's proposed fiscal 1973 budget requests $750 million in elementary and secondary education and early childhood research and demonstration. Although the Office of Education and NIE will be the primary sponsors of research and innovation in these areas, significant efforts will be mounted by other agencies, such as the Office of Child Development (DHEW), Social and Research Administration (DHEW), OEO, and the National Institute for Mental Health (DHEW).

Coordination of educational R&D resources and programs can assist the educational R&D community to construct a more powerful apparatus for effecting policy on educational research. This would lead to more effective research programs and ultimately improve the quality of education in this country. NIE must assume its responsibilities toward more effective coordination. Through coordinated planning and the development of explicit goals, it should be possible to enhance each agency's capabilities while focusing the total Federal effort more effectively on the major research needs of the nation.

The purpose of this paper is to present a series of options open to NIE for coordinating its research and development functions with other Federal agencies active in educational research and development. The organization of this document is intended to present in topic outline form a flow of background information discussing (1) brief synopses of the major sponsors of educational research and development within the Federal Government; (2) examples of existing coordination systems; and (3) a framework for interagency coordination. The fourth section presents a series of options for consideration in determining the procedure whereby NIE can coordinate its R&D activities with other agencies. The last section outlines three suggested coordination program models combining mechanisms discussed in the preceding section. No recommendations are presented-intentionally.

CHAPTER II

MAJOR SPONSORS OF EDUCATIONAL RESEARCH AND DEVELOPMENT WITHIN THE FEDERAL GOVERNMENT

Within the Federal Government, nine agencies or offices address educational research in a significant way. Federal sponsorship of educational programs falls generally into three categories: those programs directed towards improving instructional practices or the educational process; those programs indirectly related to the educational system; and those programs supporting manpower efforts.

Directly Related to Educational Systems:
- Office of Education (OE)
- National Science Foundation (NSF)
- Office of Child Development (OCD)
- Office of Economic Opportunity (OEO)
- Department of Housing and Urban Development (HUD)

Indirectly Related to Educational Systems:
- National Institute of Child Health and Human Development (NICHD)
- National Institute of Mental Health (NIMH)

Programs Supporting Manpower Development:
- Department of Labor (DOL)
- Department of Defense (DOD)

OE, NSF, and OEO are more directly related to the first category—their interests lie in the ongoing operation of American educational institutions. The second category identifies the activities associated with NIMH and NICHD—research of relevance to education occurs only as a byproduct of other interests pursued. While an agency like the Department of Defense does education-related research and development, the impact of these activities on the educational system is secondary to the impact on immediate Department of Defense manpower requirements.

Five agencies (OE, NSF, OEO, NIMH, and NICHD) provide the vast majority of the Federal funds available for educational research and development activities in the United States. With the establishment of NIE, the Office of Education's research activities will be limited primarily to support of education for the handicapped, school libraries, and educational technology. The agency providing the next largest portion is the Department of Defense. No single DOD program is directly aimed at educational research, but incidental to a number of missions the Department of Defense is called upon to support, funds are made available for research on various aspects of learning and motivation, for the development of training materials of more than simply military significance, and for exploration and development of computer uses for instruction and training.

Table I provides information on the financial support given educational R&D within the nation.

A. National Science Foundation (NSF)

The National Science Foundation operates under the broad legislative authority provided by the National Science Foundation Act of 1950, Public Law 81-507, as amended. A wide range of activities is authorized, including support of basic scientific research in all science fields, fellowship awards in the sciences, and international exchanges of scientists and scientific information. Research and development activities in science education and science curriculums are supported as a portion of the broader range of science-related activities administered by the Foundation. In addition, research support may be provided under its basic and applied science grant system for research on learning or other areas relating to education. In recent years the Foundation has also acquired important responsibilities relating to the application of computer technology to education.

Although not educationally oriented, a new research program aimed at problems of society and the environment is in the initial stages at NSF. Called Research Applied to National Needs (RANN), it is focusing its efforts on problem-orientation, distinguishing the RANN programs from the more general research-support programs of NSF. Activities supported by RANN will seek to increase understanding of social and environmental problems and their underlying causes, and to identify opportunities and means for applying advanced technology for the benefit of society. Initial problem areas include, among others, earthquake engineering, fire research, weather modification, and municipal systems.

TABLE I

FINANCIAL SUPPORT FOR EDUCATIONAL RESEARCH
AND DEVELOPMENT BY SPONSORING AGENCY

	Fiscal 1968
Office of Education	$101,967,000
National Science Foundation	23,326,000
National Institute of Mental Health	11,860,000
National Institute of Child Health and Human Development	8,377,000
Office of Economic Opportunity	12,800.000
Department of Defense	6,046,000
Other Federal Agencies (Labor; Commerce; Children's Bureau; Agriculture; Social Rehabilitation Service; Food and Drug Administration; Interior; and Endowment for Arts and Humanities)	6,725,000
Private Foundations	7,344,000
All Others (State Agencies; higher education institutions; professional and academic associations, etc.)	13,845,000
TOTAL	$192,290,000

Source: *Educational Research and Development in the United States*, National Center for Educational Research and Development, Office of Education, December 1969, page 117.

Within NSF the major educational research and development efforts are those applied to instructional improvement at pre-college, college and graduate levels. in science and mathematics. Science includes the natural sciences, social science, engineering, psychology and the physical sciences. Related activities are focused toward education—pre-service teaching curriculum development and coordinated systems efforts. For example, in the State of Delaware, a program is underway for a coordinated approach to improve junior high school science instruction for state-wide application.

Major emphasis is directed by NSF toward improving the institutional research resources of colleges and universities. In this connection, an interesting program is being developed wherein NSF supports research performed by high school students and college undergraduates. Under supervision of the institution, students can add to their educational aims by preparing proposals for the performance of selected research projects and actually participating with the professionals in research being performed at the institution. By developing an early interest in research, these students, under supervision of qualified professionals, can well become the nucleus of the research group of tomorrow.

Another related research activity within NSF, the Office of Computing Activities, has responsibility for new programs designed to provide support for computer utilization in education and research. Such support is provided for developing computer uses, for strengthening and expanding the area of study coming under the heading of computer sciences, and for student and teacher training. Support is also provided for special projects which may not fall under one of the above groupings.

B. Department of Defense (DOD)

During fiscal 1972, a total budget of $46 million was appropriated for research activities for the Army, Navy, and Air Force; of this, $17 million was allocated to training and educational research. The proposed budget for fiscal 1973 increased these figures to $51.6 million of which $19 million will be used in training and educational research. These figures are for fundamental research only; they do not include development of prototype systems or hardware.

Major thrusts of educational R&D within the DOD can be described under six major areas:

1. Computer Aided Instruction (CAI);
2. Training of Category IV Personnel:
3. Specialized Curriculum Development:
4. Pilot Ground Training Using Flight Simulators;
5. Social Training; and
6. Special Training Aids.

Computer-aided instruction research is being conducted by all three services. In this connection the Advance Research Project Agency (ARPA), a DOD agency, is planning a large scale automated instructional system to be funded by each service and DOD. The concept has been prepared by ARPA and a joint tri-service planning committee will be assembled to develop the plan. By mid-1975 an on-line operational prototype system will be available.

Training of Category IV personnel (low IQ) consists of training selected personnel not qualified for service duty due to mental inadequacies. To date this program has been successful.

In the area of specialized curriculum development, emphasis is placed on matching training programs to military requirements. While investigating C-130 air craft crew training was found that graduating crewmen were overtrained—they had been taught more than they actually needed to fulfill a crewman's job. Approximately 33% of the cost of this training was saved by eliminating excess curriculum requirements.

The Air Force is spending $5 million dollars, almost a third of its budget, in developing pilot flight simulators. These aids permit a pilot to receive basic flight training without ever leaving the ground, thereby saving the expense of aircraft fuel and usage and avoiding possible accidents. These simulators use computers and television screens to realistically reproduce actual flight conditions within cockpit mock-ups.

Social training research addresses problems of individuals within each service. These efforts include the investigation of drug abuse, race relations and cross-cultural training. Cultural training provides orientation for personnel assigned foreign duty, including how to get along in a foreign country and basic language courses. Research in training aides is directed toward their improvement, particularly in the service schools and academies.

C. Department of Labor

Research within the Department of Labor directs major emphasis toward the solving of local and regional manpower problems. Fiscal 1969 marked the seventh year of the Department of Labor's Research Program established under Title I of the Manpower Development and Training Act (MDTA) to guide and help perfect programs for better utilization of the country's manpower resources. In the past three years, this research has been supplemented by a program of studies under the Economic Opportunity Act (EOA). Another research program was instituted this year in support of the Social Security Act (SSA). All of these research programs have been developed and are administered by the Office of Research and Development in the manpower administration, under the leadership of associate manpower administrator.

Individual research projects are conducted, through a system of contracts and grants, by investigators representing the major social science disciplines–sociology, economics, industrial relations, psychology, political science, social work, and anthropology–as well as the fields of business administration, engineering, and education. Most of the researchers are affiliated with universities; the remainder work for local community groups, government agencies, and private research organizations.

The most extensive research projects under MDTA and all projects under the EOA and SSA are concluded under grants and contracts. MDTA special research grants support three types of projects:

1. Institutional grants to universities to develop new manpower research talent and long-term programs of research on local and regional manpower problems;

2. Small grants to doctoral candidates to support research for dissertations in the manpower field; and

3. Small research grants to post-doctoral scholars for innovative studies and the development of research designs for major studies of manpower problems.

D. Housing and Urban Development (HUD)–Model Cities

The Model Cities Act did not place strictures on the type of educational programs that could be developed; it does not limit this development to compensatory or remedial programs. The Act allows cities much greater freedom than existed with other Federal grants to use funds in poor neighborhoods in ways that local people, not necessarily professional school administrators, think best. Ideally, the Community Development Agencies, those local agencies established by HUD funds, would utilize the supplemental funds to finance "unthinkable" education projects and could also promote maximum utilization of existing categorical grant programs in the Model Neighborhoods. Cities have generally attached an important role to education in the development of Model Neighborhoods with education programs accounting for the single largest use of Model Cities' supplemental funds. Basically, the Model Cities program continues to emphasize the community involvement aspect of educational planning and development. Other important results of the Model Cities Program include: experiments with education alternatives, such as subsidizing private interests for work-study programs, residential or home-education programs, storefront academies and libraries; pre-school education being provided in public housing facilities; significant progress made in linking Model Cities and OE funds; and successful linkages with the Career Opportunities Program (COP).

The education component of Model Cities has shown encouraging development in coordination and cooperation between local school agencies and local Model Cities planning processes; program planning between local and state education agencies, colleges, universities, local residents and community development agencies; technical assistance provided through the utilization of technical assistance contracts and interagency agreements; and understanding and meaningful participation between the community and the school.

A major project of Model Cities was the funding of eight State Department of Education programs to define a role for those agencies in the Model Cities program. This program was jointly funded by HUD and Title V of ESEA.

In the educational programs of local community development agencies, the following breakdown of funds has been noted:

Elementary and Secondary	56%
Vocational Education	5%

Early Childhood	10%
Higher Education	13%
Adult and Continuing Education	16%

E. Office of Economic Opportunity (OEO)

The two basic missions expressed by OEO are social R&D and advocacy for the poor. OEO has been slated by the President to become the research arm of the Executive Branch in problems relating to the poor. Presently, OEO sees itself as providing an independent base from which objective social R&D, including evaluation, can be carried out across disciplines and functional areas. At the same time, OEO serves as an independent spokesman for the poor at the Federal level, thereby giving the poor proximity to vital points of decision, as well as access to Congress. OEO R&D efforts not only include gaining and testing of new knowledge about the causes of poverty and policy-relevant research and experimentation, but also extend to demonstration, pilot, and operational programs. They use whatever mechanisms are considered necessary to ensure the marketing or replication of new, effective anti-poverty techniques. More and more OEO R&D programs are being highlighted by long range planning and funding with particular attention given to the time and method for the replication of R&D activities. OEO might become involved in operational activities, but only on the basis that such activities are needed to market or replicate the R&D product. These operational activities are expected to be a temporary role for OEO.

The Office of Planning, Research and Evaluation (PRE) of OEO has concentrated on large, relatively well-designed experiments and demonstrations that have had or promise to have a significant impact on policy. These include: performance contracting in education; the Parent Child Development Centers (PCDC's); network of experimental day care centers integrated with the PCDC (planned); educational vouchers; and integrated preschool and in-school curriculum and programs (planned). Other major studies currently being planned by PRE are: a study to determine the effects of housing location on early childhood development; a comparative study assessing the effectiveness of various preschool programs on child development; an experiment designed to address a number of policy issues arising from the day care provisions of the new welfare reform Social Security Act; and a study to determine the benefits relative to costs of different types of day care programs. The Office of Program Development (OPD) has concentrated its programming in community colleges, Indian education, New Gate prisoner education, street academies, College of Human Service (credentialism), adult basic education, and the community and education. Program areas now in stages of development include teacher training and mental health and education.

F. National Institute of Mental Health (NIMH)

The basic mission of NIMH is to develop knowledge, manpower and services to treat and rehabilitate the mentally ill, to prevent mental illness, and to promote and sustain mental health. The particular character of this broad charge assures a significant role for the Institute in the support of education-related research and development activities. Research is supported through a broad grants program.

The Division of Extramural Research Programs handles the greater bulk of the activities relating to education which NIMH supports. The Behavioral Sciences Research Branch supports a variety of studies which may have relevance for education, in such areas as learning, motivation, cognitive processes, personality development, socialization processes, family structure, and culture and personality. The Applied Research Branch provides support for an extensive program of research on mental health related to education on such topics as: learning problems of children, especially the emotionally disturbed and retarded; school adjustment disturbances; underachievement; dropouts; student stress and group reactions, particularly at the college level; ecology of school situations; and school mental health services. The operating budgets for the Behavioral Sciences Branch and the Applied Research Branch are $19.1 and $17.8 million, respectively.

G. National Institute of Child Health and Human Development (NICHD)

The National Institutes of Health considers that the support of research in the biological, medical, behavioral and social sciences is required to acquire new knowledge and deeper insight into health problems of mothers, children, and all individuals throughout their life span. Except for a relatively small amount of funds needed to cover administrative costs and to support new intramural research projects, funds of NICHD are used to support outside research and training projects and programs in

five categorical fields: Reproduction and Population Research: Perinatal Biology and Infant Mortality; Growth and Development; Adult Development and Aging; and Mental Retardation.

The kinds of education-related research which the Institute supports under its five extramural programs and in its intramural research include the physiology and biochemical processes of fetal growth; developmental behavioral and cognitive processes; effects of impoverishment on intellectual functions; the effects of malnutrition on mental development; language development, speech, and dyslexia; personality development; neurophysiological aspects of learning; specific mental processes such as perception, attention, sensory processes, and memory; developmental aspects of intellectual capacities as these relate to age, race, and socioeconomic status; the role of motivation, affect, social conditioning, incentives, and cognitive style on normal and mentally retarded persons; and the prevention of the occurrence of retardation.

H. Office of Education (OE)

The Office of Education engages in data collection and statistical research activities designed to chart the progress of education in the nation. In addition, OE supports research and related activities in the general field of education, in the field of education for handicapped children and youth, in vocational education, in modern foreign languages and related fields, in library and information science, and in education generally in countries abroad where counterpart funds may be available.

The largest portion of the responsibilities for sponsoring research and related activities through OE rests in the National Center for Educational Research and Development. The range of potential responsibilities of this organization is large. All age levels, all levels of education, all curriculum areas, all research topics relevant to learning and education, and all the functions (research, development, surveys, demonstration, dissemination, and manpower relating to all these) involved in employing science to improve education are within the Center's program.

Two large scale developmental activities initiated within the past two years are currently administered by special units reporting to the Deputy Commissioner for Renewal. A Career Education Task Force is creating four alternative models to the traditional vocational educational curriculum. Research outcomes and innovative school practices are being integrated into comprehensive delivery systems in the Experimental School Programs. Both activities are designed to meet two special priorities of the Commissioner of Education.

With the creation of the National Institute of Education, the authority and responsibilities of the National Center for Educational R&D, the Career Education Task Force, and the Experimental Schools Unit will be transferred to the NIE. Other research efforts in the areas of technology and education for the handicapped will remain with OE. Essentially, those OE R&D activities concerned with systematic efforts to gain new knowledge relating to education or to develop and explore new approaches to education will be transferred to NIE. If the program's basic thrust is to assist education consumers using the tools we already possess, its budget will remain in OE.

I. Office of Child Development (OCD)

Two Bureaus operate within OCD. The Children's Bureau works in program areas relating to the problems of all children, their families, and the environments in which they develop. Programs for preschool children are administered by the Bureau of Head Start and Child Service Programs. In pursuing its goals, OCD attempts to play a role of advocacy for all children as well as to assist in the process of developing the necessary manpower to enact programs, provide services, and conduct research.

OCD's research effort could include basic research, applied research, methodological research, evaluation, demonstrations, dissemination and utilization. The basic content of OCD's research, demonstration, and evaluation projects are day care, health, family development, organization processes in children's programs, information utilization and dissemination, cognitive and personality development, and vulnerable children.

The OCD operates within the Operation Planning System which is the overall guide for planning in OE. Internally, OCD has developed a process for determining priorities and grantees which involves two committees. The first analyzes program areas in terms of the scientific impact and the second reviews the same program area (or grant) in terms of the agency's estimation of needs and priorities.

In fiscal 1971, OCD spent $5.5 million with the following breakdown:

Day Care	$1,120,970
Health	72,460
Family Development	1,232,938
Organization Processes in Children's Programs	623,147
Information Utilization & Dissemination	76,147
Cognitive and Personality Development	674,110
Vulnerable Children	1,409,113
Miscellaneous	291,115

OCD also expended $2,373,881 for fiscal 1971 Head Start evaluation projects in the following content areas:

Cognitive and Personality Development	70.0%
Day Care	2.5%
Health	5.8%
Family Development	11.0%
Information Utilization & Dissemination	10.5%
Organization Processes In Children's Programs	12.0%

OCD is a principal member of the Interagency Panel on Early Childhood Research. This Panel is described in more detail in a following section as a "model" interagency coordination mechanism for educational research and development.

CHAPTER III

MODELS OF EXISTING COORDINATION SYSTEMS

A. The Interagency Panel on Early Childhood Research

The Interagency Panel is a unique happening in the Federal Government in that a coordination activity involving eleven different offices is still functioning effectively after more than two years in operation. This panel was established by the Office of Child Development from a mandate issued by the Secretary of HEW and concurrent interest on the part of the Office of Management and Budget (OMB). This concern on the part of the Secretary and OMB was derived from a belief that there was no overall strategy for early childhood research and that much overlapping of program areas had taken place without benefit of coordination.

The Interagency Panel was the mechanism for an integrative and cooperative research effort. Eleven different offices in HEW and OEO banded together into a supportive coordinated process that is designed not only to strengthen each agency but also to achieve a situation where the total contribution exceeds that of an individual agency's efforts. The panel moved slowly at first, assuring all offices that it was non-threatening and was not going to superimpose another bureaucratic authoritarian structure on top of the existing structures. A number of rules established to guide the workings of the Panel have possible relevance to NIE as it determines its coordinating role. These include:

1. The Panel's primary mission is to maximize the utilization of R&D.

2. Its primary objective is to use the scientific tool or research process to acquire knowledge and information which contribute to policy formulation, program development, program improvement, theory construction, and greater understanding of the significant factors which affect the development of children.

3. Its goal is to maximize the effectiveness of each constituent agency's research effort.

4. The absence of a hidden agenda, such as one to ultimately create a single monolithic structure having responsibility for all educational R&D.

5. Strategies to be used include the effective development of joint research efforts reflecting the growing concern for service integration.

6. Joint effort is to be achieved through mutual decision-making by all concerned agencies rather than by a mandated procedure.

7. All information pertaining to resources, plan, accomplishments, work-in-progress and reservations concerning projected research efforts would be shared fully and truthfully.

8. Shared information would be kept confidential and public release of any information would be through the initiating agency.

9. Participating agencies would commit the minimum services of a senior-level person (GS-14 or above) who would spend at least 50% of his time on the effort.

10. Designated participants from the agencies would be knowledgeable about respective agencies' planning and research program and have access to the staff member responsible for the respective agencies' research program.

11. All Interagency Panel-approved policy decisions would be submitted to all agencies for approval.

12. Panel members would vote as professionals on policy issues and the Agency Director would vote in consideration of agency needs.

13. Administrative support was provided by an Information Secretariat. This support was financed by OCD in its first year with a $200,000 allocation. There is discussion about equitable sharing of expenses of involved agencies in the future.

14. Records are kept of all meetings and copies circulated to the respective agencies. All records and file materials are available to all participating agencies.

In NIE coordination efforts, the Institute may first wish to elicit information from other agencies involved in educational R&D relative to the establishment of research priorities, how these priorities are translated into research activities, and how the findings are utilized in further policy decisions and research planning.

One of the first tasks undertaken by the Interagency Panel was to conduct an analysis of various priority mechanisms used by the different offices involved in the Panel (Stearns, *et al.*, 1971).

This report also contained the following points:

1. Priority setting is affected by a variety of influences.

2. Annual priorities are influenced by the amount of funding available.

3. Agencies varied in the percentage of unallocated funds they reserve for funding unsolicited proposals.

4. Priority setting within agencies varies with the scope of funding. The various agencies have different proportions of their annual funding allocated to support of projects, programs, and centers:

a. Agencies which have a major portion of their funding at the *project level* are most subject to annual shifts in priorities.

b. Agencies which have a large proportion of their funds at the *program level* have made a longer range commitment to special research areas.

c. Agencies which have a large proportion of their funding at the *center level* have made large scale, long term commitments to investigating major research questions and are least subject to annual shifts in priority settings.

The Interagency Panel has produced a number of documents currently in use by the various agencies involved. These include:

1. The History and Current Status of Federal Legislation Pertaining to Day Care Programs.

2. Early Childhood Research and Development—Needs, Gaps, and Imbalances: Overview.

3. Early Childhood Research and Development: Needs and Gaps in Federally Funded Intervention Studies Within a Longitudinal Framework.

4. Broad Agency Goals and Agency Research Objectives for fiscal 1972.

5. Legislative Mandates for Early Childhood Research.

6. A Review of the Present Status and Future Needs in Day Care Research.

7. Summary Regarding Agency Information Systems.

8. Suggested Issues for the Interagency Panel.

9. Tentative Policy and Operating Guidelines for the Interagency Panel.

10. An Analysis of the Process of Establishing and Utilizing Research Priorities in Federally Funded Early Childhood Research and Development.

The Panel members are quite satisfied with the work accomplished so far but recognize that considerable work remains to be done. This work includes helping member agencies and offices carry out the research program to which they have already committed themselves and, at the same time, helping them develop new programs of research in areas considered important but not yet adequately supported. Another short range task would be the continuance of the ongoing process of communication and coordination. A long range goal of the Panel would be to develop and work within a frame of reference which will permit more rational allocation of research resources. Such an effort would increase knowledge about children in a more systematic way and make possible increased coordination of research on an interagency basis. The Panel has devised some important basic steps for determining both short and long range goals. These steps, which may have important implications for NIE as it considers its coordinating role, follow:

I. Immediate Tasks

a. Identifying Research Gaps and Imbalance

1) Identify broad research areas in which relatively little research has been done.

2) Identify where additional amounts of research attention are required.

3) Identify instances of overlap and duplication.

4) Review those areas which appear to be receiving adequate research to see whether the distribution of work and the patterns of distribution are sufficient to meet real needs.

5) Determine together what can be done to assure a balanced interagency research program, and then make recommendations as to appropriate officials.

b. Refining and Updating the Interagency Information System

1) An adequate information system is the *sine qua non* of effective planning.

2) Procedures for collecting and reporting information in a standard fashion need to be developed which are compatible in every way possible with the existing information systems of the member agencies.

3) Scientific methods of storing, updating and retrieving information must be used.

4) A conceptual framework for the analysis and interpretation of educational research should be developed.

5) To provide assistance and additional information services to the panel, an Information Secretariat is being established. This will provide the means for the agencies most vitally involved in educational research to develop a common information system for reporting and analyzing their research. This will provide a reliable base to assist the coordination of future planning.

c. Continuing Analysis of Research and Social Trends

1) A significant function of the Panel is to assess research needs, based on an evaluation of the status of educational research in relation to major social directions and issues.

2) Given the dynamic nature of scientific progress and of social change, the process

of determining research needs is an ongoing one, never to be completed.

3) Continued analysis of research findings and sensitivity to major social currents will form the basis of the Panel's future determination of research priorities.

2. Long Range Tasks

a. Identifying Future Research Needs Based on Predicted Social Problems and Scientific Knowledge

1) Social Trends. Predicting the future depends upon acute perceptions of current trends and countertrends, such as: Women's Liberation and experimentation in alternatives to the nuclear family; the shrinking work week; jobs requiring high verbal and symbol manipulation skills; rising automation and technology; and population growth. Once such major trends and their potential contribution to society's future character have been systematically explored, essential long-range social issues and goals relevant to educational research can then be more readily identified and developed.

2) Knowledge Trends. Another area bearing on future research needs concerns the present and future state of knowledge and methodology in the scientific disciplines relevant to educational research, including, for example, psychology, anthropology, and research methodology. Basically this means that regardless of the importance of certain scientific and social questions for the well-being of children, they cannot be answered unless the state of scientific knowledge and technology is sufficiently sophisticated.

b. Providing for a Broad Exchange of Information

1) The Panel should systematically examine non-Federal research efforts to determine areas of focus and increasingly to relate these efforts to Federal planning and activities in the same field.

2) Liaisons should be built with research groups outside the Federal government.

3) Means to provide for the effective dissemination and exchange of information over a broad range of users will be worked out by the Panel with the aid of the Secretariat (Stearns, *et al.* 1971).

To facilitate the whole mechanism, the Panel has the undivided assistance of the Information Secretariat, an office set up in the Office of Child Development whose principal obligations are to the Panel. In addition, George Washington University has received a grant of approximately $200,000 to supply support services to the Information Secretariat and the Panel. Although the Office of Child Development is footing the bill at present, it is expected that all offices might contribute a certain percentage to the operational expenses. Obviously, it is a segment of the coordination mechanism that NIE must consider.

B. Information Exchange Systems

At the present time, no continuing institutional capability or mechanism for the systematic collection of information about educational R&D exists, causing inadequate data availability. Each Federal agency has its own information system, but they all differ in content, usage, hardware, and overall operation. Thus, someone attempting to gather information must go to several agencies and, more often than not, his needs are not met. This situation has developed historically and does not represent ineptness or any particular lack of insight on the part of any individual or agency. It has been compounded, however, by internal bickering and fights over territorial prerogatives as needs have become apparent. This kind of situation can be anticipated when an attempt is made to draw together from separate organizational units common activities which have developed piecemeal. It is one reason why it is so important that management information responsibility be centralized and given top management support from the beginning in NIE. Some of the various information systems presently in operation are discussed below.

1. Office of Education

The computer-based Project Grant Information System (PGIS) gives printouts on titles, abstracts, funding information, principal investigators, and related proposals and projects for OE discretional grants and for operating programs codes. Information goes into the system at the proposal state. PGIS interacts with the

ERIC system and can produce weekly reports on newly funded research projects.

The Products/Accomplishments from Research and Development in Education System (PARADE) is collecting information from regional education labs and research and development centers about the products or results of research and development. Its purpose is to develop a system for the evaluation of work, its information is not presently computerized, and it uses a questionnaire to collect information. This system, however, is still in the pilot stage and there is no assurance that it will be continued.

2. National Institute of Child Health and Human Development

NICHD has a computer-based data system using scientific classification codes to give printouts on titles, abstracts, and other information.

3. Office of Child Development

OCD has no computerized data system; titles, summaries and funding information are available.

4. Office of Assistant Secretary for Planning and Evaluation (HEW)

Research data here is not computerized. Information on titles, summaries, and funding, can be obtained. ASPE has a contract with AMS to develop a model for an HEW research and development information network.

5. National Institute of Mental Health

The Division of Extramural Research of NIMH has a computer-based information system which gives printouts of titles, abstracts, funding, principal investigator and other information.

6. Office of Economic Opportunity

OEO has a computer-based system for data on poverty population. Research data is not computerized. Titles, funding and description of projects are available. Final reports on completed projects are available through the ERIC system.

7. Non-Government Systems

An interesting system called the Technical Information Exchange is in operation within the General Electric Company in Schenectady, New York, operated by Corporate Research and Development. This system serves as the corporate repository and loan center for technical reports originating throughout the Company. Reports produced as part of the Company's Technical Information Series are filed with the Technical Information Exchange and announced through the Selective Notification and Dissemination System. The selective announcement system replaces a previous semi-monthly abstract bulletin.

The purpose of the General Electric Company system is to provide abstract information concerning currently available technical documents to users on a selective basis. Each user registers his particular interest areas from a list of 83 general subject-type categories. Incoming documents are indexed and abstracts are prepared and computerized. Through a computer matching program, a search is made comparing each user's interest areas with the indexed documents. When a match is identified, individual abstract cards are printed for each report, automatically stuffed into an envelope and sealed, ready for mailing.

For many users the information contained on the abstract card is sufficient for his immediate purposes. If the user indicates a need for additional information, he can request the full report—mailed in hard copy for retention or loan, or a microfiche copy for retention. A self-addressed order card is enclosed with the abstracts, so the user can check off his needs easily and return it to the Technical Information Exchange.

A system of this type could serve the requirements of the educational community. For example, in a National Science Foundation document, a table identifies a total of approximately $1 billion for fiscal 1970 Federal obligations for research in the physical sciences, spread among seventeen Federal agencies. If each of these agencies had provided their research inputs into a central information exchange, and each had indicated a request to receive abstracts on related activities within the physical science field, it is conceivable that duplications, gaps, and overlaps might have been identified within the physical science research activities of these agencies. Additional benefits include the knowledge gained through information exchanges, the identification of research project personnel, and the capability for increased coordination activities (National Science Foundation, 1972).

C. The Federal Interagency Committee on Education (FICE)

The Federal Interagency Committee on Education, chaired by the U.S. Commissioner of Education, represents an ongoing, proven mechanism which is well suited for coordinating Federal programs of educational research and development. FICE was established by Presidential order in 1964 to coordinate the wide-ranging educational activities of Federal agencies. It provides a mechanism for agencies in the executive branch to work together in resolving common problems and in developing a coherent approach to administering education legislation.

1. Purpose

Sound public policy requires a continuing appraisal of the relationship between Federal educational programs and the educational needs and goals of the Nation. FICE addresses these goals through systematic review and discussion. It was established to advise the Secretary of Health, Education and Welfare, Commissioner of Education, and other agency heads on educational policy and procedure, and to facilitate coordination of Federal educational activities.

2. Structure and Operation

The Commissioner of Education is designated as chairman of FICE by Executive Order 11185 (October 16, 1964) which established the organization. The FICE staff is attached for administrative support to the Office of Education, reporting directly to the Deputy Commissioner for External Relations.

The Executive Order provides a broad FICE mandate to study, appraise, and make recommendations on Federal educational responsibilities. It originally stipulated seven members and three observers, while reserving to the chairman authority to invite participation of other agencies as appropriate. As a result of vital interest, a total of twenty-five agencies now have designated representatives to FICE. See the Appendix for a list of representatives and agencies. The monthly plenary sessions customarily involve thirty to forty conferees, including guests and consultants. The agency representative is usually the chief educational policy officer or his delegate. Members represent a variety of viewpoints and responsibilities. They provide an effective resource for reviewing policy alternatives and improving communication among agencies on educational concerns.

Subcommittees, task forces, and other work groups are appointed to deal with issues as appropriate. As a rule, subcommittees deal with broad functional and jurisdictional concerns while task forces address issues of narrower focus. Standing subcommittees continue over time, while task forces generally terminate with completion of the specific assignment. Chairmen of these subgroups are either FICE members or designated by them. These groups make recommendations to the full Committee for achieving consistency among Federal programs and avoiding contradictions in administrative process. They also authorize studies and research, identify problem areas for FICE attention, and establish guidelines for staff activities. Subcommittees currently in operation include:

a. Student Support Study Group–Strives for greater consistency and efficiency in administration of all Federal student support programs. Conducts reviews of Federal funding for college student support (in operation since 1966).

b. Government-University Relations–Considers large issues affecting Federal relations with institutions of higher education (in operation since 1966).

c. Universe of Post-Secondary Educational Institutions–Develops common coding systems for computer record keeping of agency data on post-secondary educational institutions (in operation since 1968).

d. Educational Statistics–Coordinates educational data collection and provides a mechanism for agency exchange, and review (in operation since 1969).

e. Manpower–Examines and integrates manpower projections and reviews national needs as assessed by various agencies for program and policy purposes (reorganized in February 1972).

f. Career Education–Provides focus for developing programs, including review of policy formulation and program design (established in February 1972).

Task Forces currently in operation include:

a. Higher Education for Disadvantaged Minorities–Reviewing levels of Federal aid to Spanish-speaking and American Indian students with a view toward developing recommendations to provide additional aid for these minorities.

b. Education and the Arts–Exploring ways that the arts can assist in achieving educational objectives of agency programs.

c. Transfer of College Credit–Efforts are now underway to explore agency views with regard to restrictions on transfer of college credit as it affects an increasingly mobile college population.

3. Emerging Concems

FICE attempts to maintain a flexible structure and establishes working groups to deal with areas of concern. Environmental education, a problem common to several agencies, is under current consideration. Other areas of concern recently addressed by FICE member agencies are adult education, educational research and development, drug abuse education, education for migrants, international education, junior colleges, and the Vietnam-era veteran. Task forces or other work groups to deal with these issues will be organized whenever several agencies decide that the problems warrant their coordinated attention.

4. Membership of the Federal Interagency Committee on Education, 1972-1973

Chairman
Sidney P. Marland, Jr., U.S. Commissioner of Education

Deputy Commissioner for External Relations
Charles B. Saunders, Jr.

Executive Director
Bernard Michael

Agencies and Their Representatives

Department of Defense
Nathan Brodsky

National Institutes of Health
Leonard D. Fenninger, M.D.
National Science Foundation
Keither Kelson
National Endowment for the Humanities
Wallace Edgerton
National Endowment for the Arts
John Hoare Kerr
Department of Labor
William Hewitt
Office of Economic Opportunity
Arthur Reid
Department of Agriculture
N. P. Ralston
Department of State
Gilbert Anderson
Smithsonian Institution
Richard Grove
Health Services and Mental Health Administration HEW
David F. Kefauver
National Aeronautics and Space Administration
Morris Bob Nooner
Atomic Energy Commission
Clarence E. Larson
Department of Housing and Urban Development
Melvin Wachs
Civil Service Commission
James R. Beck, Jr.
Department of Justice
Edward H. Braxton
Environmental Protection Agency
John Leslie
Department of Commerce
Renee Gallop

Observing Agencies

Council of Economic Advisers
Eric Hanushek
Office of Science and Technology
John M. Mays
Office of Management and Budget
Allen D. Jackson
Bureau of Higher Education, HEW
Joseph P. Cosand

CHAPTER IV

FRAMEWORK FOR INTERAGENCY COORDINATION

The tremendous range and diversity of educational research and development in the United States has resulted in multi-agency R&D activity without benefit of coordination. Effective coordination between NIE and other Federal agencies conducting educational R&D will provide a foundation for a coordinated approach to solving major problems in education. The study of such coordination activities must consider assumptions underlying the problems and constraints bearing on it.

A. Rationale for Coordination

Educational research and development today shows multi-directional extensions, duplications in effort, and a seeming lack of overall strategy. This situation suggests a need for a means of coordinating the overall program and directing it toward improving education in the United States. Within the past few years a number of reviews of policies and practices in educational research and development have been undertaken. They have ranged in form and scope from extended memorandums internal to the Federal Government to formally published studies. (See A Special Study of Educational Research, Office of Education, March 1967, and A Study of the United States Office of Education, 90th Congress, 1st Session, House Document No. 193.) They identify a major concern: a critical need for an overall strategy to support and promote the growth of educational research and development within the nation. An overall design should be mapped out in advance with a set of consistent and well-defined goals and objectives and a matching set of procedures or methods identified to attain these ends. Coordination will play an important role in orienting the program toward a carefully focused research and development effort.

In developing a strategy to attain the goal of improving educational R&D, an initial approach should be the compilation of a list of objectives to serve as a base upon which to build an overall plan. Early NIE emphasis on the coordination of Federal R&D should consider those objectives essential for NIE to become operational. These objectives may include: the establishment of mechanisms for interagency coordination; data gathering of ongoing R&D efforts being supported in other agencies; setting up communication channels with the R&D community throughout the country; policy objectives on setting NIE's proper role in focusing the R&D effort; developing a centralized capability for providing the Director and the Advisory Council with the information they need to perform their functions.

NIE coordination activities must be initiated at the Directorate or Secretarial level. Having sanctioned and legitimized the interagency relationships, department heads, staff members and contract officers are free to develop close working relationships. Initial meetings should be directed toward the gathering of information by NIE personnel, such as how programs are planned, funded and managed; major problems related to their R&D efforts; and requests for recommendations on how NIE can work most effectively with the agency. The goal should be to establish close personal relationships with NIE counterparts in other Federal agencies.

B. Basic Assumptions and Constraints

1. Assumptions

a. The commitment of most agencies to "coordination" is verbal and not active; hence, there is little real coordination of activities between Federal agencies. Where coordination does exist, it has been highly fragmented and basically non-productive.

b. Although a clear mandate and precise legislative authority are prerequisites for fulfilling a successful coordinating role, coordination has a better chance to succeed if it is conducted in a climate of cooperative involvement rather than authoritarian coerciveness.

c. Coordination is greatly facilitated when the people involved know and respect each other personally and professionally. This also helps to reduce the fears of "turf encroachment" which some agencies see hiding behind every coordination attempt.

d. NIE should assume the leadership role in encouraging coordination activities among those agencies conducting educational R&D.

e. Effective coordination includes provisions for expeditious exchange of pertinent information.

f. Interagency coordination must be given constant administrative and fiscal support by the leadership of NIE if it is to be successful at the operational level.

2. Possible Constraints

a. Disinclination and overprotective attitudes on the part of some agency personnel negates meaningful involvement in coordinating activity.

b. Weak, imprecise legislation authorizing coordination and insufficient appropriations will make coordinating activity difficult, delicate and subject to the willingness of other agencies' desire to participate.

c. Staff persons may be psychologically disattuned to coordination efforts due to a history of unsuccessful attempts at similar activities.

d. Coordination activities are not normally built into the fabric of staff duties and are usually left to individual initiative or inclination.

e. The mechanics (time and resources) required to bring a group together on a regular basis when persons involved in interagency activity have other and "higher" priority duties can be counter-productive in terms of benefits.

f. Upper level staff have a tendency to relegate their duties on interagency committees too readily to subordinates, thereby stamping the activity as relatively unimportant.

g. Effective coordination activity requires sufficient fiscal support and budget allocation; it is questionable whether NIE will want to establish coordination as one of its principal priority areas.

h. Coordination is perceived by many administrators and analysts as just another bureaucratic requirement that interferes with efficient conduct and administration of programs as well as a block to effective and prompt decision-making.

i. The time and effort required to achieve some modicum of intra-agency coordination may prohibit further allocation of time for external coordination activities.

C. Potential Accomplishments of the Coordination Effort

Accomplishments of NIE's coordination effort should provide information covering the major thrusts of educational R&D–what agencies are active in the field, their scope, funding allocations, major milestones within each program, etc. To maintain this information and have it available when needed will require the establishment of procedures for acquiring, indexing, storing, retrieving and disseminating this data. It is anticipated that the NIE management information system could be utilized for these tasks. This system would assist NIE personnel in identifying duplications or gaps in R&D efforts, provide a focal point where users of educational R&D information can find required data, assist planners in developing programs, assist decision-makers in establishing priorities, and many other potential uses.

Additional results of interagency coordination would be the identification of programs where joint efforts may be applied, the identification of persons with specific expertise who may be called upon to assist in particular areas of planning, the exchange of information between agencies, the identification of needs of other agencies and the direction of NIE efforts to respond to these needs. The establishment of a close, working, personal relationship across agencies will be most effective in developing a proper focus for the educational R&D effort–the approach toward development of clear and careful definition of objectives and the development of carefully considered, thoroughly coordinated, research and development attacks on major educational problems. Perhaps the most important benefits of the coordination activity are eliminating unnecessary duplication of R&D efforts by revealing overlap and identifying R&D needs that have "slipped through the cracks" and are not receiving the attention warranted.

CHAPTER V

OPTION IDENTIFICATION AND ANALYSIS

After considering current models for coordination and a theoretical framework to organize it, a number of options for specific levels and kinds of coordination can be discussed. In this process of identification and analysis, no judgments are rendered to prevent the open consideration of each option. Indeed, it is expected that several options can and will operate simultaneously. Each of the following options is independent from the others.

Option A – Federal Interagency Committees

After review of educational R&D efforts being performed by various Federal agencies, the interagency committee would identify gaps and overlap of current effort. The Committee would discuss the responsibilities that would, if accepted, keep overlap at a minimum unless planned. The Committee would encourage regular systematic information-sharing with all agencies on their missions and areas of responsibilities. The agency representatives would have the responsibility of inputting the information gained in Committee activity into the planning, development and decision-making process of the representative agencies. The Committee could encourage activity in many different coordination mechanisms, such as joint planning, priority setting, personnel exchange and resource sharing and others described in later option descriptions. (See Chapter III for example.) The interagency committee should be staffed with agency representatives having some level of authority with concomitant ability to translate committee activity into agency policy and program.

1. Functions

a. Obtain from all education-related agencies, OMB and Congressional Committees responsible for educational matters, their operating goals for a one-year and five-year period and a statement of evaluation activities each organization would want conducted in relation to these goals. Obtain a list of research activities which must be conducted to support the operational goals and evaluation efforts outlined above.

b. Examine non-Federal research efforts to determine areas of focus and relate these efforts to Federal planning and activities in the same field.

c. Develop a "national" set of R&D goals using input from a. above, as well as input from a planning task force which will include evaluation, education, and research "experts," representatives of educational associations, and teachers' unions.

d. Review all education-related R&D efforts sponsored by the various agencies.

e. Compare the above R&D activities to the annually developed "National" (NIE) R&D goals. Define the gaps where no work is being done. Assess the resources needed, as well as those available, to close these gaps.

f. Cooperatively reassess R&D priorities in relation to national R&D goals.

g. Examine R&D activities which overlap, cooperatively decide where funds can be shifted or merged with another activity, and maximize effectiveness of that effort.

h. All policy decisions developed by this Committee are subject to approval of the agency affected.

2. Resource Requirements

a. Each participating agency must be represented by one senior level person able to spend 5% of his time on committee work.

b. A support staff of ten people is necessary, including an executive director to manage and constantly promote this cooperative effort. An information staff is also needed to disseminate to all cooperating groups planning documents and records of meetings as they are developed or as they occur.

c. Other personnel within each agency must be available to work with their agency's representative when planning relates to their respective areas.

3. Benefits/Results

a. More effective utilization of each constituent agency's research resources would result.

b. A greater balance in interagency research programs could be developed.

c. Additional resources needed to meet specific research goals could be defined and submitted to management officials and Congress.

d. No separate R&D bureaucracy with total authority over all educational research will be created.

e. An information flow of national R&D efforts and needs will be available for the first time.

4. Weaknesses/Limitations

a. A large interagency group may be difficult to manage and could limit productive output.

b. Full time staff members and clerical personnel would be required to handle the administrative development of the group.

c. Alternates to the primary agency representative would have to be appointed to maintain continuity if the primary representative was not available, thereby enlarging the coordination group.

d. The agency representative may have to get approval from his superiors before he can make decisions implicating his agency; he may not have complete authority to speak for the agency.

e. Delays in productive output could develop from the action in d. above.

f. If a high level executive is appointed from an agency, he may not have the time to contribute in an effective manner to the working level panels.

g. Some agencies may not want to provide complete data on their activities.

Option B – A Standing Interagency Information-Gathering Staff

A prerequisite to developing a coordinated federal educational R&D strategy is the availability of comprehensive information about the related R&D activities in all Federal agencies. A standing staff could maintain the long-term interagency contact necessary to obtain and frequently update this information.

1. Functions

a. Gather information on the status of all educationally-related R&D efforts planned or ongoing in all Federal agencies.

b. Establish a central data bank to serve as an information exchange and repository for all federally funded educational R&D information.

2. Resource Requirements

a. Full time staff–each member responsible for an agency is needed to gather data on planned. ongoing and completed R&D activities.

b. Involved agencies must require regular personnel to cooperate, as part of their regular duties. with the NIE Information Gathering Staff.

c. Computer support would be necessary to compile data and make it immediately available for dissemination.

3. Benefits/Results

a. A comprehensive list of all education-related federally sponsored R&D activities will be available for the first time.

b. NIE planning, management, and funding operations could use this data to maximize their effectiveness.

c. Non-government educational consumer groups need this type of information.

4. Weaknesses/Limitations

a. Non-Federally funded R&D efforts are not included in this listing.

b. Utilization of this material is not guaranteed.

c. Consumer needs will determine how effectively this data is used; however, no function has been defined for this staff for consulting the consumer

about his information needs, the reporting format and style he would find most useful, etc.

d. Individual agencies have their own reporting systems which differ in content, usage, hardware and overall operation; they may be unwilling to conform to a centralized system.

Option C – External Commerical Contract

This option envisions the issuance of a contract to a private, profit or not-for-profit organization to provide facilities for the collection, indexing, storing and selective dissemination of federal educational R&D initiatives and programs. This information system references only Federal R&D programs in progress and should not be confused with ERIC which files and documents completed R&D and other educational information. The system selected for this purpose could operate on a shared basis with a contractor presently operating a similar system. Some changes or additions may be required in order to provide a system responsive to the specific needs of NIE and the educational community.

1. Functions

a. Receiving educational R&D inputs from NIE and other Federal agencies; if the system proves adequate for Federal R&D efforts, consideration could be given to expanding it to include non-Federal R&D efforts.

b. Indexing these inputs by a technical information specialist to reflect the principal subject areas covered by the report.

c. Preparing abstracts of each report received.

d. Storing the report and its abstract.

e. Computer matching of user interest areas with indexed documents.

f. Disseminating abstracts to users identified in the matching process.

g. Collecting information on other systems currently in use by other Federal agencies and commerical firms and establishing working relationships with persons managing these systems.

h. Coordinating with staff members within NIE and outside agencies to determine their requirements of such a system.

i. "Selling" the system to other agencies so that they will subscribe to and actively participate in the program.

j. Monitoring system operation to ensure that it meets the design specifications.

2. Resource Requirements

Planning for the information system could be accomplished by a qualified full time NIE staff member or by selecting an outside organization to assist in system conceptualization, system design, and preparation of specifications.

3. Benefits/Results

a. The establishment of a central educational R&D information repository and dissemination center would serve the Federal government and the educational community.

b. Using an outside contractor to perform this function would relieve NIE personnel of the burden of maintaining such an information system, thus it would reduce personnel requirements.

c. It would serve as an "advertising" medium for NIE, bringing to the attention of many users of this system the efforts being addressed to educational R&D.

d. It could provide a means of detecting duplications, gaps, and overlaps in educational R&D efforts.

e. It would assist planners responsible for program development, funding, monitoring and evaluation.

f. It would identify performers within each field of activity, thereby providing coordination contacts for other interested performers, promoting the exchange of information and ideas.

g. It would be a source of information available to staff members in developing reports to the Director on educational R&D subjects.

h. The system could be expanded to include members of the educational community within the States and local communities.

i. Contracting with an external organization would eliminate the need for space within NIE facilities to house this system.

4. Weaknesses/Limitations

a. The effectiveness of the system would depend upon the submission of research project reports to the repository by the R&D participants or on NIE assuming responsibility for collection.

b. Contract costs would increase as system subscribers increased, causing increased budget requirements.

c. Some participants would be reluctant to provide complete information for sharing with others.

d. The central repository might be located outside the immediate vicinity of NIE facilities, creating security problems.

e. Until this system is fully operational, provision for sharing another agency's system must be made on an interim basis.

Option D – Intramural Liaison/Coordination Section

Under this option, coordination with other Federal agencies would be performed by the liaison/coordination section of each of the NIE line operational offices.

1. Functions

a. Establish an inforrnational reference system for data relating to that office's educational R&D efforts.

b. Gather information on other Federal agencies and their educational R&D activities.

c. Make coordination contacts with personnel in other agencies having related interests.

d. Receive and act on information requests directed to that office.

e. Develop inputs for reports required by the Director.

f. Participate in planning educational R&D projects coming under the purview of that office.

g. Represent project personnel on panels, in conferences and briefings.

h. Perform briefings on office activities to interested persons or agencies.

i. Participate in program dissemination activities.

j. Perform public relations functions for the office.

2. Resource Requirements

Initially the liaison/coordination section for each of the three line operational offices will be quite small. Soon after legislative enactment of the bill establishing the agency, NIE efforts will be directed toward those programs transferred from the OE. A period of time will be devoted by the liaison groups to becoming familiar with these programs, developing contacts with the people associated with the programs, becoming acquainted with office policies and procedures–a general settling-in process. As time passes and each group gains in knowledge, develops operating procedures, and establishes a clear-cut operating routine, an evaluation of the initial organization can be made. At this time it should be determined if the functional requirements of the liaison group are being met. Is this organizational structure providing NIE with the best in coordination potential? If not, further evaluation will be needed to present solutions to those problem areas identified as weak or ineffective.

3. Benefits/Results

a. Each liaison section would eventually develop close working relationships with other agency personnel having related efforts.

b. This option would eliminate the requirement for a large interagency coordinating group.

c. Each liaison section would be an information center for other agencies seeking information on programs within that Office.

d. Coordination would take place on a lower staff level than that of an interagency group.

e. Liaison person would have greater knowledge and awareness of programs than would a single representative of each agency.

4. Weaknesses/Limitations

a. Multiple coordinating agencies would be operating independently and without centralized control or direction.

b. Information concerning educational R&D would be stored in many different locations, a major current problem.

c. This option would narrow the scope of the coordination effort.

d. It would increase personnel requirements to staff multiple liaison groups.

e. It would increase the problems of those attempting to gather significant data for presentation to the NIE Director—too many places to go for information.

f. It would increase the problems of identifying duplications, overlaps and gaps in the overall educational R&D effort.

Option E – Exchange Proposals for Review

This procedure is often used when an agency needs the expertise of a specially qualified professional from another agency to make inputs to funding or program decisions. Under this option, agencies doing comparable educational R&D would develop a system whereby proposals relating to a specific R&D area would be interchanged for review by selected persons in the involved agencies. A careful system of review criteria and scoring mechanisms would be developed. Reviewers would look at the proposals from their own agency's perspective in order that a variety of points of views are fed back to the sending agencies. Reviewers would regard this activity as a regular part of their duties. It could even be described in job announcements and job descriptions. The sending agency would take the review submission from other agencies into serious consideration when making decisions on funding, revision or rejection. Information should be shared with other reviewing agencies as to reasons for action.

1. Functions

a. The NIE office responsible for incoming proposals will disseminate these proposals to selected persons in the agencies concerned with the particular R&D activity outlined in the proposal.

b. The individuals from the various agencies will sit on the NIE review panel for the proposal. Each individual's input will carry equal weight in the decision-making process. Input will include amendments to the proposal finally selected for funding.

c. Funding decisions will be cooperatively reached and information regarding this decision will be distributed to all involved agencies.

2. Resource Requirements

a. A support staff for proposal dissemination and review panel operation.

b. Individuals identified by each agency to function as proposal reviewers.

c. Salaries and space available as part of other ongoing activities.

3. Benefits/Results

A cooperative review and funding effort should assure cooperation by the affected agency with the study team which will implement the research proposal.

4. Weaknesses/Limitations

a. The RFP is not developed cooperatively by involved agencies and NIE personnel. This means the proposals responding to the RFP may not necessarily be

responsive to the particular research task as seen by the involved agency.

b. The involved agencies are not involved in developing the list of bidders who will be allowed to respond to the RFP and may feel that the list is not as inclusive as they would like it to be.

c. The monitoring responsibility for the funded proposal is not defined.

Option F - Joint Funding of Projects

Joint funding of projects can occur for a number of different reasons. Budgetary constraints may force an agency to phase out a program which a second agency is willing to pick up. Concerned agencies may agree to coordinate joint funding for a proposal involving each of them. Project officers of proposals or ongoing projects not being funded at the desired level may attempt to find an agency with a related mission willing to contribute funds.

1. Functions

a. An office within NIE will coordinate all information on the status of all ongoing and planned educational R&D efforts.

b. This office will function as a clearinghouse for all concerned agencies' research-related funding problems.

c. Responsibility for identifying funding problems will rest with this office. A review team will function within this office, reviewing all education-related R&D proposals for quality, proposed scope of effort, and potential relationship to other planned and ongoing R&D efforts. The team will report its findings to the joint funding staff.

d. This joint funding staff will propose funding solutions but must obtain the approval of the concerned agencies before action can be undertaken.

2. Resource Requirements

a. Joint Funding Staff will obtain information on the status of R&D projects throughout the government.

b. A full-time review team will review R&D proposals as to their quality, proposed scope of effort and potential relationship to other planned or ongoing R&D efforts.

c. Work space and salaries are needed for this office.

3. Benefits/Results

a. The quality of R&D efforts will be improved through increased funds.

b. Overlapping R&D efforts will cease.

c. More longitudinal studies can be attempted with different agencies picking up the cost for one year's time.

d. Resources can be better allocated to meet priority needs.

e. Agencies should appreciate the "broker" role played by the joint funding team.

4. Weaknesses/Limitations

a. Concerned agencies may resent the proposal review power of the joint funding staff.

b. Overprotective attitudes on the part of some agency personnel will limit the amount of useful information received on that agency's R&D proposals.

c. Coordination of funding solutions will be time-consuming and may delay the proposal submission-funding cycle by many weeks, throwing the entire project off schedule.

d. Coordination between the joint funding staff and the "national" R&D planning staff in NIE must be strong if the joint funding staff is to function effectively and reflect the "national" priorities established by the planning group.

e. Congressional and vested interest groups may see this as reducing their "pet" projects, agencies or bureaus.

Option G - Exchange Personnel Among Agencies

This mechanism could be implemented when joint program activities are required or when special expertise is needed. A detail is one mechanism to free staff for interagency programs. R&D and evaluation personnel could serve for periods up to one year in NIE to better understand the support function of that Institute and to ensure that these individuals will return to their respective agencies willing to encourage cooperation with NIE in their efforts.

1. Functions

a. Personnel from different agencies will work together within one agency or within NIE to plan and monitor R&D efforts which require a joint agency effort or special expertise from another agency.

b. Personnel from cooperating agencies will work in NIE for up to one year to better appreciate the mission of this Institute and to learn how the Institute functions. These individuals would also orient NIE personnel to the operating needs and realities of their respective agencies.

2. Resource Requirements

a. Agencies must be willing to detail individuals as needed.

b. Agencies must be willing to detail three R&D evaluation staff personnel to NIE each year.

c. A support staff is needed within NIE to supervise personnel transfers and joint work operations as well as to plan a meaningful one-year apprenticeship for visiting agency personnel.

3. Benefits/Results

a. Differing views and disciplines, as well as additional expertise and resources, will be coordinated within one project.

b. Improved understanding and cooperation will result in the agencies' R&D and evaluation offices.

4. Weaknesses/Limitations

a. Agencies may resist placing too many people on detail.

b. Agency personnel responsible for the R&D effort may be unwilling to cooperate or share power with personnel from other agencies.

c. It is questionable how much time related agency personnel will give to a "cooperative" task, resulting in the central agency expending a great amount of effort and time to obtain their input.

d. Promotions are hard to gain when one is on detail in another agency.

e. Expendable people are placed on detail as a matter of practice in the Federal government.

f. Where does the authority rest to determine who should be cooperating with whom and for how long?

Option H - Interagency Grant Monitors

This approach would involve an arrangement whereby two, three, or even four agencies which have a common interest in a particular project or activity would all share in the monitoring process. The action agency would, of course, play the leading role while the others would participate in such activities as joint field trips, joint review and discussion of significant project documents and communications, and joint project reviews and status briefings. At the end of such a project, the joint monitors could also contribute to the writing of the final evaluative report and the formulation of recommendations. All of this would have to be on an invitational basis.

1. Resource Requirements

Resource requirements will vary widely, depending upon the number of joint ventures an agency undertakes and the level of involvement agreed upon for each venture. Essentially, such joint enterprises will require some staff time and funds for occasional field trips.

2. Benefits/Results

a. More efficient and effective monitoring of the projects jointly covered may result.

b. Improved program linkage may result.

c. Duplication of efforts may be reduced. Many times the instruments and materials developed by one program are usable in another program.

d. Working relations between agencies may be strengthened.

e. Interagency jealousies and frictions may be reduced.

f. Greater endorsement of one another's programs in the field will occur.

3. Weaknesses/Limitations

a. There is a limitation on how much a person can do outside of his own agency while still maintaining high performance within his parent organization.

b. There may be some complicated psychological risks: role confusion, loyalty mixtures, personality conflicts.

c. Conflict of agency philosophies and *modus operandi* may occur.

d. There is a risk of programmatic diversion or undue influence exerted by guest monitor.

Joint monitoring is a unique and highly effective method for inter-agency cooperation at the most crucial level (right at program level). There are some risks, but the benefits will more than compensate for the time and effort required to overcome such risks and make the proposition work.

Option I - Interagency Request for Proposal (RFP) Development

The process and set of activities out of which the RFP emerges is, perhaps, the most crucial and opportune moment for interagency ventures. Under this option, an arrangement would be established which would alert relevant agencies to the fact that an action agency was ready to undertake serious discussions on a particular topic and that consultation would be invited on the workup and RFP instrument. When this happened, those agencies having an interest would send a delegate to sit down with the action agency and discuss the amount and kinds of joint participation desirable. The nature of the involvement could range anywhere from constant day-to-day participation in the full RFP preparation process to simple review and comment of the RFP prior to its formal, public announcement.

1. Functions.

a. Based on the combined knowledge, experience and expertise of the several agencies involved, the RFP group would meet and exchange information and ideas on the nature, form, content, objectives and processes surrounding the launching of a new project.

b. Drawn from their respective agencies, the group would provide special experts to work on difficult areas such as budget, legal problems and complicated evaluations.

c. The group would help to draft the final RFP.

d. The group would give information and suggestions on possible contractors and grantees.

e. The group would assist in the evaluation and assessment of the incoming proposals.

2. Resource Requirements

The only resource requirement would be staff and some kind of system to determine who should be involved, when, and to what extent. Taxi fare or occasional (very rare) out-of-town travel may also be needed.

3. Benefits/Results

a. Undue overlap and duplication of program efforts will be reduced.

b. RFP's will be of a higher quality than usual and produced in a shorter period of time.

c. Grantee or contractor selection will be better, determined on a broader base than if a single agency is involved.

d. Interagency working relations will be improved.

e. Acceptance and endorsement of other agencies' programs will be increased.

f. Standardization of the best RFP process among many agencies is possible.

4. Weaknesses/Limitations

a. Availability of good staff is not definite.

b. The process may become lengthened; absence of key participants holds up the process.

c. Inter-group frictions arising from differences in organizational philosophies and procedures are possible.

The RFP process is critical in the shaping and

launching of new programs. If interagency cooperation is to be successful, this is one area that cannot be excluded.

Option J - Interagency Planning Seminars

Most education R&D agencies have staff units with responsibility for actual planning activities. These planning units vary as to size, purpose and authority. Some organizations are loosely tied to the director while others are interwoven into a very tight administrative set-up.

1. Functions

a. Each agency involved would make a report on its programmatic activities which take place between meetings (Perhaps two seminars per year would be the best strategy).

b. A discussion of each agency's projected activities would be covered.

c. Plans for joint ventures or parallel efforts could be made.

d. Jurisdictional conflicts, overlaps and duplications could be raised and the process for resolution and agreement initiated.

e. Resources, materials and program operators in each of the agencies could be linked up and commence appropriate dialogues.

2. Resource Requirements

Staff time and a system for initiating, conducting and following up on the meetings would be the only resources required.

3. Benefits/Results

a. Programmatic duplication and overlap can be reduced.

b. More effective planning is possible.

c. Program linkage will be better.

d. Greater utilization of federal resources is possible.

e. Interagency relations will be improved.

f. Greater benefits will accrue to the program recipients.

4. Weaknesses/Limitations

a. Timing is crucial: at what points in the year will most agencies have useful review knowledge and fairly solid projections?

b. Availability of high level staff will be a problem.

c. The seminar may disintegrate into an interagency gripe session.

d. Within an agency, planning decisions sometimes shift sharply and abruptly reflecting budgetary circumstances. This could undermine any positive gains coming out of joint planning. It may even make joint planning impossible.

The joint planning seminars should be attended by the top-level, most authoritative spokesmen of each agency, at least at the outset, when the broad outlines and directions of each agency are expressed. Such seminars would be an invaluable first step in the interagency coordinating chain.

Option K - Scheduled Interagency Briefings

This option involves having agencies consciously attempt to include in briefing sessions of important educational R&D programs, results or plans, other agencies having related concerns. Of particular importance would be briefings on results of important evaluations.

1. Functions

a. Serve as a vital communication process.

b. Reduce programmatic duplication by letting each agency know what the other is doing or about to do.

c. Act as an information exchange agent.

d. Build mutual respect and understanding among and between agencies and their personnel.

e. Strengthen working relations between agencies.

f. Contribute to employee fluidity and career mobility.

2. Resource Requirements

Outside of a system for planning, scheduling and holding the briefings, there are no resource requirements.

3. Benefits/Results

a. Working relations between agencies and their personnel will be improved.

b. Program duplication can be avoided.

c. Operations for all agencies will be improved because they will be benefiting by the mistakes made by others.

d. As a side effect, personnel placement, utilization, and retention should be considerably improved.

e. Greater program integration at the national level can result.

4. Weaknesses/Limitations

The biggest problem will be getting the right people to make the briefings and having the right people there to receive them.

Option L - Staff Whose Major Job Assignment is Liaison

This procedure makes it possible for program staff to continue with their full-time job responsibilities without additional interagency activities.

1. Functions

a. Agency representatives will work full time in their liaison function with NIE obtaining inputs from program personnel and agency R&D personnel as needed.

b. The liaison functions will be similar to the non-voting advisory committee members discussed in Option O below.

2. Resource Requirements

Each agency must assign one or more senior-grade staff persons to the full-time job as agency liaison, one or more junior-grade staff persons and a secretary.

3. Benefits/Results

a. Program personnel can function full time on their jobs without assuming additional coordination duties.

b. Agency representatives will view their liaison efforts as important tasks and will not be forced to compromise their efforts with duties not directly related to this liaison function.

4. Weaknesses/Limitations

a. Full time liaison personnel often lose contact with the "realities" of the operating programs and their actual needs, plans or problems, as opposed to the stated ones.

b. Liaison tasks for an entire agency will probably require more time and effort than NIE may want to provide.

c. Unless program personnel are directly involved in the coordinated effort, their full cooperation may not be obtained.

Option M - All Evaluation by NIE Evaluation Staff

NIE will be responsible for the impact evaluation of all federally funded educational R&D programs. The agencies sponsoring these programs will be responsible for all process evaluation—describing the status of the projects, the degree to which the program and project goals are operational, and the measurement and methodology problems which must be resolved by NIE to allow for impact evaluation. Impact evaluation of all federal programs is currently an impossible task because resources are not available, e.g., funds are not sufficient to assess all programs simultaneously, methods are not sufficiently advanced, measurement instruments must be refined, etc. NIE must examine this task, defining areas where developmental activities are needed and where some impact assessments are possible. Activities defined within these two areas must be ranked as to importance and NIE must then allocate its limited funds on a priority basis.

Limited resources will be conserved because studies will not overlap or duplicate one another as they do now when individual agencies shoulder the responsibility for impact evaluation. Responsiveness to "national education questions" will be immediate, thus making it possible for improved legislative and funding action in Congress and improved planning and management in the executive branch of government. NIE will negotiate the amount of evaluation funds the involved agencies must share with them to make impact evaluation possible.

1. Functions

a. NIE will be responsible for all impact evaluation of Federal R&D programs.

b. NIE must support research efforts which improve research and evaluation study methodologies and measurement instruments.

c. NIE will negotiate with other agencies as to allocation of resources for this purpose.

2. Resource Requirements

a. Increased funding will be necessary.

b. Development staff are needed to monitor research efforts to improve research and evaluation methodologies and measurement instruments.

c. Impact evaluation staff will be responsible for all federal education programs.

3. Benefits/Results

a. Resources will be conserved; studies will not be duplicative or overlap.

b. Limited resources can be concentrated to focus on improving study methodologies and instrumentation that will be useful to all programs in all agencies.

c. Responsiveness to research and evaluation questions posed by OMB, Congress, The White House and education consumers will be speeded up.

d. Better quality studies will result because resources will be concentrated.

4. Weaknesses/Limitations

a. Agencies will resent sharing already limited evaluation funds with NIE.

b. Agencies will be overprotective of their programs and afraid of outside impact evaluations.

c. Limited resources will mean that some R&D programs will not be evaluated in a given year.

d. A sizable staff will be needed to carry out this function.

Option N – Special Issues Task Forces

A Special Issues Task Force should be just that. There should be a mechanism whereby the heads of all appropriate agencies declare that a topic merits the "special" classification and jointly move to initiate the Special Task Force.

Constantly during a program year special issues arise that make coordinated effort a logical activity. The agencies having some responsibilities relating to the special issue would be identified and invited to participate in a Special Task Force Project. Persons would be designated from the consenting agencies and Task Force activity would then begin. Group sessions would occur as required and persons would have to commit adequate time in order for the special issue to be effectively resolved. It would be expected that each agency representative would keep his respective agency informed as to the outcomes of the Task Force. Most task forces would be of a more temporal nature as contrasted to a standing committee set-up.

1. Functions

a. Functioning as a member of the Special Issues Task Force, each delegate would express the concerns, issues and observations of his particular agency vis-a-vis the topic under consideration.

b. Each delegate would keep the appropriate parties in his own organization abreast of the deliberations of the Task Force.

c. The delegates would see that any special expertise possessed by their agencies is reflected in the overall deliberations of the full Task Force. This can be done by supplying expert testimony to the group or by

having relevant Task Force documents studied and commented upon by the parent agencies.

d. The Special Issues Task Force, on the basis of careful deliberations, would write position papers, compile expert data and opinions, and formulate recommendations which would be useful to legislators, policy makers, and others who have an interest in the special topic being discussed.

2. Resource Requirements

Most of the resource requirements are systemic or procedural. Once an overall system of coordination is established, NIE or any other agency involved could, through the established machinery, convene a Special Task Force. All other agencies and interested parties, depending upon their interests, needs, and resources, could act accordingly. Apart from a responsive, well organized system of communications and coordination then, no other requirements are anticipated.

3. Benefits/Results

a. Topics of special gravity or magnitude would be systematically elevated to the level of discussion and consideration commensurate with their importance and national significance.

b. Each agency would have a definite opportunity to express its views at a very high and receptive level.

c. The blending and fusion of diverse positions on the topic would provide a receptive climate conducive to compromise, adjustments, and working agreements, ultimately benefiting the target populations or sectors which might be affected by the resolution of the special issues.

d. By utilizing a Special Task Force made up of technicians, professional experts, programmers and generalists, a well balanced approach can be made to important questions which avoids the evils which result from a biased or skewed group composition.

4. Weaknesses/Limitations

a. If special issues arise too frequently, the Special Task Force will lose its "specialness" and hence the unique characteristics which give it its effectiveness.

b. Agencies may not be able to send their "special" people.

Option O – Appoint Non-Voting Members to the NIE Advisory Council

Non-voting members could assist in resolving interagency coordination problems, as well as clarifying both discrete and shared areas of responsibility within the total Federal educational R&D effort. In addition, fragmentation and duplication of effort could then be reduced by policy commitments among agencies to make these shared areas ones in which joint program planning, management, evaluation and project funding activities will occur.

1. Functions

a. The non-voting members on the NIE Advisory Council will be senior-grade personnel, one representing each involved agency. Each member will be responsible for overseeing all coordination efforts between his agency and NIE. This will include ensuring that systematic information-sharing is occurring regularly, that all individuals from his agency working in liaison functions with other divisions within NIE are performing their liaison tasks well and are receiving full cooperation from other personnel within the agency, and for reporting to the head of his respective agency on all plans and proposed working arrangements with NIE.

b. These non-voting members will work with the NIE Advisory Council to develop agreements on the mission and areas of R&D responsibility of their respective agencies and jointly plan with NIE advisory panel and non-voting members from other involved agencies where responsibilities are mutual or overlap and where joint funding is needed.

c. The non-voting members will participate in the planning, management and setting of R&D priorities with the advisory committee. However, the final decision in each of these areas rests with the advisory committee. The non-voting members can only try to persuade the advisory committee to respond in a way favorable to their respective agency's needs.

d. Each agency representative is responsible for dissemination of all plans developed by NIE to the appropriate offices within his agency and is responsible for representing their needs to NIE.

2. Resource Requirements

One senior-grade representative from each cooperating agency, one administrative assistant for each representative and one secretary are required. Each will spend full time on this liaison function.

3. Benefits/Results

a. The Advisory Council provides a coordinating group representing the educational R&D needs, plans and efforts across the Federal government.

b. Overlaps, gaps, and duplications in the R&D effort will be identified and resolved.

c. Reports developed by the Advisory Council would reflect the consensus of all Federal agencies and would increase the credibility and "workability" of the report.

d. Agencies' attention would be focused on the need for improvement of education through R&D.

e. Agencies would share with one another information on how that agency conducts its R&D activities.

f. The non-voting members would add diversity of views and disciplines to the Advisory Council.

4. Weaknesses/Limitations

a. The agency representatives have no vote and must accept the Advisory Council's decisions which may affect their respective agencies' funds, programs or R&D plans.

b. A large interagency group may be difficult to manage.

c. Time will be lost when non-voting members confer with their superiors to obtain approval for potential plans.

d. Disinclination on the part of some agency personnel to meaningful involvement in coordination activity.

e. Intra-agency coordination will be difficult to achieve, thus the agency representative may not be accurately reflecting his agency's plans, needs and ongoing activities.

f. High-level persons have a tendency to relegate their position on interagency groups too readily to lesser employees thereby giving the stamp of "unimportant" to the activity (especially when they have no vote).

g. Agency cooperation may be limited because they have no voting power.

h. All participating agencies sit in on the high councils of NIE, but NIE is not represented on Advisory Councils of other agencies. NIE officials may be reluctant to accept this kind of relationship.

Option P – A Publicly Announced NIE Planning Calendar

This procedure would be a publicly disseminated announcement of NIE's schedule or calendar of planning events for the year (every six months would be better). It would inform the public of the agency's open meetings, conferences, seminars and related information about NIE's agenda for the year. It would advertise to other agencies involved in educational R&D as to possible program areas of interest to NIE and elicit their involvement in the developmental process.

1. Functions

a. To inform consumer constituencies (governmental and non-governmental) of the R&D activities and intentions which will be pursued over a one-year and five-year period.

b. To encourage input from consumer constituencies concerning their needs and interests which are or are not being met by NIE.

c. To build support for these NIE-sponsored efforts and to encourage utilization of the results.

2. Resource Requirements

a. A public information office is needed with sufficient funds and staff to disseminate the planning calendar to many groups and individuals.

b. A staff will be needed to be responsible for surveying on a regular basis the consumer constituencies to obtain their inputs for the R&D efforts of NIE.

c. A central data bank will be established from which consumer constituencies could obtain R&D funding information.

3. Benefits/Results

a. Consumer groups would be consulted, their needs and interests determined; these will be reflected in the NIE planning effort.

b. Utilization of the end product of the R&D efforts will be assured to some degree if the study plans meet the needs and interests of these consumer constituencies.

c. Increased awareness of the value of "good" R&D efforts to the educational field.

4. Weaknesses/Limitations

a. Considerable funds and personnel will be needed to support a central data bank effort.

b. Once consumer groups are contacted for their input, they will feel an opportunity has been offered them and they will resent it if their input is not reflected in later NIE planning efforts.

c. It would be difficult to obtain any consensus as to what should be the priorities for the NIE R&D effort.

Option Q – Interagency Panel with External Commercial Contract

Under this option NIE would be an active participant in an interagency coordination panel while, at the same time, the technical operation of a central data source of educational R&D is performed by an external commercial organization. The discussion and advantages/disadvantages included in Options A and D apply to this topic as well and need not be repeated.

CHAPTER VI

COORDINATION MODELS

The preceding chapter of this report identified a number of discrete coordination mechanisms which could be utilized by NIE as it administered its educational research and development program. These mechanisms can be applied singly (although they would be more effective in combinations) or in a total coordination program blending a number of mechanisms. This chapter outlines three suggested coordination program models combining mechanisms discussed previously. These programs differ in the level of coordination activity, ranging from a minimal program to an extensive effort having impact on many agencies. These "models" are only suggestive of coordination programs; NIE must develop its approach based upon many factors, e.g., legislative intent, available resources, and research and development programming. In describing the models, the program development process has been separated into several sections: pre-planning, planning, program formulation, program implementation, and utilization and dissemination. Coordination activities can occur in any one—or most likely all—of the developmental phases of an R&D program.

Model A – Minimum Level of Coordination

For a number of reasons, NIE may wish to adopt a low profile role in coordinating its programs within the broader R&D effort. One of the critical determinants will be the level of funds available to establish and manage a sound coordination system. To set up a minimal coordination program, a senior staff person would be given the responsibility of coordinating NIE programs with other agencies involved in educational R&D. (See Coordination Option L, above.) Resources would determine whether this person had only

coordination responsibilities or these duties would be in addition to others assigned to that position. It is suggested that a minimum level would necessitate at least one full-time staff person.

In this Minimal Model, the information-sharing concept of coordination would assume the major portion of the activity. The Coordinator would attempt to gather from other agencies as much pertinent information as possible having implications for developmental activities of NIE. In addition, he would continually inform other R&D agencies concerning program direction in NIE. The coordination of the model would not substantially differ during the five separate program phases of development: pre-planning, planning, program formulation, program implementation, and utilization and dissemination. This model would emphasize gathering state-of-the-art information during the planning stage so that NIE programmers would have the latest information available relative to comparable developmental activities at other agencies. In the final phase, utilization and dissemination, the coordinator would again assure that the results of NIE programs reached the proper personnel in other Federal agencies.

The Coordinator would want to participate on strategic Interagency Committees (Coordination Option A) and Special Task Forces (Coordination Option N). The Coordinator would selectively schedule interagency briefings to enlighten NIE staff on extra-agency developments and to assist other agencies in better understanding the role and major programming activities of NIE. Occasionally, an outside review of proposal decisions would occur but this would be only on a limited basis. It would be possible under this minimal effort to arrange for a partial detail to or from NIE of selected staff whose experience and knowledge would assist either NIE or the cooperating agency (Coordination Option G). Without much expense and with some possible coordination benefit, NIE could place some non-voting members from other agencies on the NIE Advisory Council (Coordination Option O).

In this Minimal Model, many of the coordination goals could still be achieved through informal mechanisms, i.e., encouraging NIE staffers to participate in seminars, task forces, and cooperative activities between analysts. Much of this activity would evolve out of the ordinary kinds of bureaucratic relationships which now pervade most governmental operations.

Model B – Moderate Level of Coordination

The Moderate Model would assume that all the activities undertaken in the Minimal Model would also occur at this level of coordination except with greater intensity of effort. It is suggested that while one person could manage the moderate level of coordination, the program would be more effective if at least three persons were assigned full-time to the effort. The assistants could be assigned to separate agencies to coordinate activities; one assistant to concentrate on aspects of the internal NIE program and search for coordination opportunities, and the other assigned to work with other agencies and determine similar coordination opportunities. This model would also have some definite responsibilities which relate to the five segments of program development.

1. Pre-Planning Coordination Activity

Especially in NIE-directed programs, it is essential that some coordination between educational R&D agencies occur before major program areas to be explored for future program considerations are determined. The coordinator serving as the principal liaison (Coordination Option L) would establish special pre-planning task forces comprised of representatives from agencies involved in educational R&D and the planning staff of NIE. A broad overview of educational R&D needs would be obtained in those areas identified as prime for further development. In this context, some interagency briefings (Coordination Option K) and planning seminars (Coordination Option J) could be utilized.

2. Planning Coordination Activity

The planning effort is a much more extensive requirement for the agency and in this Moderate Model it is suggested that a Federal Interagency Committee be established by the Coordination Office (Coordination Option A). It would require that other agencies assign senior-level persons to work cooperatively with NIE in developing the general framework for the programs to be undertaken by NIE, especially in its directed programs. It may be necessary, because of the particular expertise of persons at other agencies, to have individuals from other agencies detailed to NIE (Coordination Option G) during this activity phase in order that their full attention can be given to the required tasks. Of course, planning seminars would be a commonplace occurrence

during this phase. It may be determined during the interagency planning activity that joint funding (Coordination Option F) of some aspect of the program might facilitate its development and increase the possibility of multi-agency interest, involvement, and utilization.

3. Program Formulation Coordination Activity

Program development is the point where the details are put into the project and, as such, would be the responsibility of the host agency. Coordination could range from continuing the Interagency Committee, to assigning a special task force, or to requesting a continuation of personnel details from other agencies. At the least, the final designed program would be circulated to all involved agencies before final sign-on and movement into the implementation stage. In the case of a jointly funded project, the coordination requirement could either be extensive in the formulation of the detailed program, or one agency could take the major responsibility for development with the power of concurrence given to the other agency. The joint funding activity might require that an RFP be developed cooperatively (Coordination Option I) or that coordination be assured through a concurrence process.

4. Program Implementation Coordination Activity

In this development phase, the exchange of information is essential. The Coordination Office would maintain close monitoring responsibilities over those projects having substantial interagency implications and those projects developed through a cooperative process. Projects could be either singly administered with reports distributed to other agencies or joint grant monitors (Coordination Model H) could be assigned from cooperating agencies. Interagency briefings could be periodically scheduled and a special project review team could be established to monitor and evaluate progress of the project.

5. Utilization and Dissemination Coordination Activity

This phase of program development is dependent upon effective coordination if diffusion of program results and expansion of the program are desired. The Office of Coordination would have a major role in this effort, working closely with the NIE unit responsible for utilization and dissemination. A number of coordination mechanisms could be employed at this juncture, such as the interagency committee, a special task force, a commercial contract (Coordination Option C), scheduled briefings and seminars, and a joint evaluation effort.

This program component is so important that a major effort in terms of the agency's resources and time needs to be committed. The utilization strategy could be one of cooperative development, with responsibilities being shared for the effective implementation of the utilization effort. Also, the results from programs developed and implemented outside NIE need to be systematically brought into NIE's base of information. Therefore, the Office of Coordination would have responsibilities involving program results emanating from within and outside NIE.

Model C – Extensive Level of Coordination

This Extensive Model would contain all the features of the Minimal and Moderate Models but, again, with a higher degree of sophistication. In addition, it contains coordination mechanisms not previously mentioned. This model, of course, would require a greater allocation of resources in terms of finance and work load. An excellent example of an extensive coordination system now exists in the form of the Interagency Panel on Early Childhood Research and Development. (See Chapter III.) It is suggested that, as NIE determines which coordination approach to undertake, it take advantage of the experiences of the Panel's operating effort. The Extensive Model described herewith will not repeat those processes mentioned in the previous two model presentations, but will assume their utilization within this model and will concentrate on mechanisms not suggested for minimal and moderate coordination effort. Also, this model will not attribute certain coordination mechanisms to discrete program phases, but will assume the utilization of all mechanisms at appropriate program junctures.

In this effort, a full staff of coordinators might be advisable with a full-time person for coordination assigned to each major division of NIE (Coordination Option D). These divisional coordinators would relate to the NIE Office of Interagency Coordination and would have both internal and external coordination responsibilities. The Director of NIE must (1) establish firmly with all staff the concept that interagency coordination is of importance and given priority status and (2) insure that program directors plan and

implement programs with that in mind. Interagency committees would be utilized greatly in this model and involved during all phases of programming. A standing interagency information-gathering staff could also be developed (Coordination Option B). This interagency staff could be supplemented by an external commercial contract (Coordination Option C) to an organization outside the Federal establishment to provide abstract information concerning currently available educational R&D data. NIE would provide the impetus for the development of this mechanism by allocating resources ($500,000) each year for its support or arrange for joint funding, with participating agencies contributing a fair share.

Another coordination mechanism which could be employed during the implementation of this model is a regular system of exchange proposal review panelists (Coordination Option E) in which staff from cooperating agencies would have, as a regular component of their responsibilities, the assignment to review proposals from other agencies. Under the Extensive Model, a greater percentage of Agency programs would be jointly funded and a regular system of personnel exchange would be instituted. Interagency RFP development, RFP panels, interagency grant monitors and grant briefings would be an integral part of this model. The evaluation of programs could be a joint process with the evaluation units of several agencies combining talents and resources to assess selected operational programs. It has been suggested that NIE could even be responsible for all evaluation of Federal education R&D programs (Coordination Option M), but this would require legislative action before it were possible, even if feasible.

The Special Issue Interagency Task Force (such as Coordination Option N) would be a heavily utilized mechanism through which a specific program area, project, or issue would be developed with the expertise gathered from cooperation agencies. The results of these task forces could result in program development activities, joint programs, or modification and improvement of agency policy or administrative procedures related to effective educational research and development.

The key to effective implementation of this Extensive Model for coordination is the early and continuous involvement of all interested agencies in the activities of NIE, including all the program phases from preplanning activities to utilization of program results. A publicly announced planning and development calendar (Coordination Option P) would indicate the NIE's openness to the involvement of other agencies, their talents and concepts.

TABLE II

SUGGESTED COORDINATION MODELS COMPARISON

COORDINATION OPTIONS	PROGRAM PHASES	MINIMAL MODEL	MODERATE MODEL	EXTENSIVE MODEL
A. Federal Interagency Committees	Pre-Planning			X
	Planning	X	X	X
	Formulation	X	X	X
	Implementation			X
	Utilization	X	X	X
B. Standing Interagency Info-Gathering Staff	Pre-Planning			X
	Planning			X
	Formulation			
	Implementation			
	Utilization			X
C. External Commercial Contract	Pre-Planning		X	X
	Planning		X	X
	Formulation			X
	Implementation			
	Utilization		X	X
D. Intramural Liaison/ Coordination Section	Pre-Planning			
	Planning			X
	Formulation			X
	Implementation			X
	Utilization			X
E. Exchange Proposals for Review	Pre-Planning			
	Planning			
	Formulation	X	X	X
	Implementation			
	Utilization			
F. Joint Funding of Projects	Pre-Planning			
	Planning		X	X
	Formulation		X	X
	Implementation		X	X
	Utilization			X

COORDINATION OPTIONS	PROGRAM PHASES	MINIMAL MODEL	MODERATE MODEL	EXTENSIVE MODEL
G. Exchange Personnel Among Agencies	Pre-Planning			X
	Planning	X	X	X
	Formulation	X	X	X
	Implementation		X	X
	Utilization			X
H. Interagency Grant Monitors	Pre-Planning			
	Planning			
	Formulation		X	X
	Implementation		X	X
	Utilization			X
I. Interagency RFP Development	Pre-Planning			
	Planning			X
	Formulation		X	X
	Implementation			
	Utilization			
J. Interagency Planning Seminars	Pre-Planning			X
	Planning		X	X
	Formulation			X
	Implementation			
	Utilization			X
K. Scheduled Interagency Briefings	Pre-Planning			
	Planning		X	X
	Formulation		X	X
	Implementation			X
	Utilization		X	X
L. Liaison Staff	Pre-Planning		X	X
	Planning	X	X	X
	Formulation		X	X
	Implementation		X	X
	Utilization	X	X	X
M. All Evaluation by NIE Evaluation Staff	Pre-Planning			
	Planning			
	Formulation			
	Implementation			X
	Utilization			X

COORDINATION OPTIONS	PROGRAM PHASES	MINIMAL MODEL	MODERATE MODEL	EXTENSIVE MODEL
N. Special Issues Task Forces	Pre-Planning		X	X
	Planning	X	X	X
	Formulation	X	X	X
	Implementation			X
	Utilization	X	X	X
O. Non-Voting Members on NIE Advisory Council	Pre-Planning	X	X	X
	Planning	X	X	X
	Formulation	X	X	X
	Implementation	X	X	X
	Utilization	X	X	X
P. Publicly Announced NIE Planning Calendar	Pre-Planning			X
	Planning			X
	Formulation			X
	Implementation			
	Utilization			
Q. Interagency Panel With External Commercial Contract	Pre-Planning			X
	Planning			X
	Formulation			X
	Implementation			
	Utilization			X

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