The Research and Development Center Program of the U.S. Office of Education is described in this document. The program objectives and criteria used in evaluating proposals for the establishment of research and development centers are indicated. Four research and development centers are discussed in relation to their common characteristics and some of the problems and strains which may be associated with these characteristics. The four centers include those at the University of Pittsburgh, the University of Oregon, the University of Wisconsin, and Harvard University. (MJM)
THE RESEARCH AND DEVELOPMENT CENTER PROGRAM OF THE
U.S. OFFICE OF EDUCATION

by

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Recognition of the central role played by education in modern society is now reaching a climax. The amount of attention given to educational matters by the press and other media has reached new highs. Of course, much of this attention has been generated by new proposals for federal legislation in the area of education, yet these proposals themselves are reflections of the widespread belief that improvement of education is a high priority national goal.

There have been two principal foci of this public discussion. The first has to do with the importance of education in solving certain crucial social and economic problems of our society. Although there are many facets of this, perhaps the most important is what might be termed the "manpower syndrome", or the interrelated problems of unemployment, poverty, automation, the acceleration of modern technology, and the need for highly specialized types of skilled manpower.

This concern is not entirely new. Indeed, at a rather naive level there has long been a belief that education was panacea for all sorts of social and economic problems. What is new is the recent concentration of effort on defining those problems for which education might realistically be expected to fulfill its promise, and on developing practical ways of changing educational practices and programs to achieve these ends.

The second focus has been upon the improvement of education itself. Here there has been a more heated dialog, but whatever the judgements as to the success or failure of our educational institutions in the past, there
One of the principal characteristics of modern society has been the institutionalization of innovation - the creation of specialized organizations devoted to producing change on the basis of scientific research. We are all familiar with this approach in the fields of industry, medicine, agriculture, and defense. In 1963 a major step in extending this approach to the field of education was taken when the U.S. Office of Education initiated its Research and Development Center Program.

The Cooperative Research Program of the Office had been sponsoring basic and applied research projects in a modest way since 1956. In later years as funds increased, curriculum development, projects and field demonstrations were added to the program. However, there was a feeling that perhaps our shots were being scattered and that research findings were not leading to innovations which were implemented in the schools.

The Research and Development Center Program was devised for the purpose of concentrating human and financial resources on significant educational problems over an extended period of time in order to improve our understanding of these problems and to develop and disseminate specific innovations. Each works along the entire continuum from basic research to action programs.

Under the Cooperative Research Act, colleges, universities, and State departments of education are eligible to participate in the program.
Proposals are received from interested institutions and agencies each year on December first and reviewed by a special panel of non-government experts. This panel makes site visits to the institutions with the most promising proposals before making its final recommendations to the Research Advisory Council, which in turn makes recommendations to the Commissioner of Education.

In the pattern that has developed, each Center is established through a five-year cost reimbursement contract between the Office of Education and the sponsoring institution. The Federal Government is providing approximately one-half million dollars to each Center annually, and the sponsoring institutions have been contributing substantial amounts of their own funds. Provision is made in the contract for an intensive evaluation of each Center's program and accomplishments at the end of the first four years, at which time a decision will be made whether to extend the contract for another five years or to phase it out.

One of the criteria used in evaluating proposals for the establishment of research and development centers is that the institution already have a highly competent staff that has made significant contributions to knowledge in the chosen problem area. It is also expected that the institution will commit a substantial portion of its resources and funds to the center. Thus, the program self-consciously seeks to build on strength. We of course lay ourselves open to the criticism that the big get bigger and the small get smaller, but we feel that such an approach is necessary in a program of this magnitude. There are other programs through which the Office of Education is seeking to increase the capacity of smaller institutions to conduct such enterprises. The Office has supported
many projects at smaller institutions through its programs in Basic and
Institution-building is an important by-product of these programs, but
none require major commitments on the part of the sponsoring institution.

To date, four research and development centers have been established.
Those at the University of Pittsburgh and the University of Oregon started
operating in the spring of 1964 and were funded from the fiscal year
1964 appropriation. Those at the University of Wisconsin and Harvard
University commenced operations in the Fall of 1964 with funds from
fiscal year 1965. It is expected that additional centers will be selected
from among proposals now being reviewed and will be established after
July 1 with fiscal year 1966 funds.

Since we are to hear papers today by representatives of each of the
four existing centers, we shall not present further details about the
individual centers. In the remainder of this paper we shall discuss
certain common characteristics of these centers and some of the problems
and strains which may be associated with these characteristics.

In the first place, each center is problem-oriented and receives
program support rather than project support to study the problem selected.
This means, on the one hand, that a center is not free to pursue any
educational topic that may interest its staff. On the other hand, each
center has a broad mandate to formulate its own program within the
limits of the problem selected without the necessity of obtaining approval
for individual projects from the Office of Education. By concentrating
effort on a given problem, a coordinated and interrelated series of projects
can be developed which reinforce each other. Promising leads from one project can be immediately followed up in another; research findings can lead directly into the development of educational innovations, and as soon as these have been properly evaluated work can begin on dissemination and implementation. Development and dissemination projects can begin immediately on the basis of work previously done at the institution and elsewhere and need not wait for the center’s basic research program to bear fruit.

In the second place, it is expected that each center will be interdisciplinary in nature and broadly based in the institution. The center is not the function of any one department or school, but a means by which the institution mobilizes all its relevant resources. Staff is brought into the center from the school of education, behavioral science departments such as psychology, sociology, and political science and from subject-matter fields in the sciences and humanities. In addition, working relationships are established with other units of the university, such as computer centers, laborator...
Another characteristic is diversity of function, to which reference has already been made. The work of the center is expected to be firmly based in basic research and lead to the growth of knowledge in education and the behavioral sciences. This, in turn, should lead to applied research and developmental activities and the production of specific innovations. Finally, these innovations must be field tested, demonstration centers established, information widely disseminated, and new educational practices adopted in local school systems and institutions of higher education. However, the relationships among these functions are complex, and often it is not easy to determine where one shades off and another begins. It is also necessary to build in feedback loops so that unexpected findings in one part of the process can be brought to bear on work being done in other parts.

Given these characteristics, educational research and development centers have certain problems, real and potential, which call for creative solutions. It is clear that they are complex organizations requiring high level administrative leadership. They exist within a university and must relate to various parts of the university and organizations of the university. At the same time they must retain a degree of autonomy and focus upon their organizational purpose.

Perhaps much can be learned from similar organizations that have set up in other fields, but there is undoubtedly much that is unique and for which new solutions must be found. One of these unique features is the necessity of creating a new role - that of the education change agent. If the results of work in research and development are to have a concrete effect upon educational practice, it would appear that a
whole new profession must be created in which people are trained to interpret educational innovations to practitioners and administrators and show how they can be successfully adapted to local situations.

One potential problem derives from the effort to graft a mission-oriented organization upon an academic institution. How can each center maintain its focus upon its chosen problem, coordinating a dozen different enterprises, while maintaining the interest and participation of faculty members from a variety of different departments and disciplines, all of whom have other important professional reference groups, but whose career lines have intersected at a given time and place? Essentially, each center must find a solution that is intermediate to two organizational models. On the one hand, it must avoid a strictly "bureaucratic model," with its lines of authority and division of labor; but equally it must eschew the "academic freedom model" in which each professor pursues whatever interest his fancy may dictate.

Another problem of coordination concerns the diversity of function encompassed in a center. Will the same individuals who conduct successful research projects carry the project through its development and dissemination phases, or will specialists be developed for these functions? One suspects that here the answer will be mixed; that there will be a development of specialists, but that a premium will be placed on training and recruiting individuals whose interest and commitment is to both basic research and the application of research to educational problems.

These, then, are some of the possible problems as seen from Washington. It is hoped that the remaining papers will touch upon some of these issues from the "insider's" point of view. It is noteworthy that the Pittsburgh
Center has provided for a special staff, responsible to the center's board of visitors, whose function is to make a continuing study of the center's organization and operations. Paul Lazarsfeld and Sam Staber of Columbia University are also making a study of educational research bureaus in the United States under a contract with the U.S. Office of Education. It is hoped that out of such efforts will come new insights into the operating of research and development enterprises.

In closing, we would like to say a few words about the program for Regional Educational Laboratories which is now being considered by the Congress. A request for 45 million dollars will be made for this program of which 22.5 million dollars will be for construction and equipment of research facilities. Authority and funds for construction are not now available to the Research and Development Center Program. Beyond this, the laboratories will be similar to research and development centers in some respects, but will be on a much larger scale and broader in function. It is expected that they will be general-purpose rather than problem-oriented. Training programs will be an important part of their operation, and special emphasis will be placed upon service functions involving dissemination and implementations of innovations through educational change agents.

For the moment, the Laboratory Program is conceived as separate from the Research and Development Center Program. Perhaps some or all of the existing centers will wish to become Regional Laboratories. Nevertheless, there may well be justifications for continuing a Research and Development Center Program in its present form. Only time will tell how all of this will work out. In any event, it is clear that exciting years lie ahead in educational research.