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APPALACHIA EDUCATIONAL LABORATORY. INTERIM REPORT, APRIL 1, 1966.

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A NATIONAL NETWORK OF EDUCATIONAL LABORATORIES HAS BEEN CREATED TO CONDUCT EDUCATIONAL RESEARCH AND RESEARCH RELATED ACTIVITIES. THE SPECIFIC OBJECTIVES OF THE LABORATORIES ARE--(1) REDUCE CULTURAL DISADVANTAGEMENT, (2) MODERNIZE THE CURRICULUM, (3) COMBAT REGIONAL ISOLATION, (4) IMPROVE THE TRANSITION FROM SCHOOL TO WORK, (5) RAISE EDUCATIONAL ASPIRATIONS AND EXPECTATIONS, AND (6) SPEED THE ADOPTION OF SOUND EDUCATIONAL CHANGE. THE APPALACHIA EDUCATIONAL LABORATORY WAS DESIGNED TO PROVIDE RAPID INTERSCHOOL COMMUNICATION AND INFORMATION EXCHANGE THROUGH COMPUTERIZED INFORMATION RETRIEVAL TECHNIQUES. INCLUDED ARE PROGRAM ABSTRACTS WHICH DESCRIBE A PRESCHOOL EDUCATION PROJECT, A PRIMARY EDUCATION PROGRAM IN LANGUAGE INSTRUCTION, A PROJECT TO RAISE EDUCATIONAL ASPIRATIONS AND ACADEMIC ACHIEVEMENTS, A HIGH SCHOOL COUNSELING AND PLACEMENT PROGRAM, AN ARTS AND HUMANITIES PROGRAM, AND CASE STUDIES IN THE PROCESS OF ATTITUDE CHANGE. THE REPORT CONCLUDES WITH A DESCRIPTION OF THE ORGANIZATION, BUDGET, FORMS, CONSTITUTION OF THE LABORATORY ASSOCIATION, AND STATISTICAL DATA ON THE REGION. (JS)

APPALACHIA EDUCATIONAL LABORATORY INTERIM REPORT APRIL 1, 1966

Submitted to the United States Office of Education pursuant to the terms of Contract No. OEC2-6-000530-0530

By: Appalachia Educational Laboratory, Inc.

Stanley Ikenberry, Interim Director

INTRODUCTION

The national network of educational laboratories is designed to create new educational institutions to conduct educational research and research related activities, to carry out the training of individuals for leadership in such activities, and to assure the continuous and intensive implementation of educational improvements based on that research. The legal authority of the program stems from the Cooperative Research Act, as amended by Title IV of the Elementary and Secondary Education Act of 1965.

The national program of regional educational laboratories was designed, in part, to correct certain basic structural deficiencies in the American educational system. There is, for example, no well developed research and development system in support of American education. Moreover, there is no viable research and development link among different units in the system such as elementary and secondary schools, colleges and universities, state departments of education, and the countless other educationally related agencies. We have no appropriate structure for making judgments among educational research and development priorities, nor do we have any means for sustaining a continuing attack on the priority problems so identified. The national network of regional laboratories was conceived as a means to insure that research findings, once developed and appropriately field tested, did in fact reach the school and find implementation.

The Appalachia Educational Laboratory is designed to conduct research, development, and dissemination activities throughout the Appalachia portions* of Kentucky, Ohio, Pennsylvania, Tennessee, Virginia, and West Virginia. Included under the dissemination category are the full range of options such as conferences, tours, demonstrations, consultants, publications, training, product marketing, exchange of

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* As defined by the Appalachian Regional Commission.

teachers and administrative personnel, working seminars, video and audio tapes, slides, films, educational television, internship, and other effective means for systematic and continuous dissemination of research findings.

Earlier regional debate has resulted in the establishment of six areas of primary concern toward which the Laboratory will direct its activities. The program of the Laboratory will be designed to:

1. Reduce the negative educational affects of cultural deprivation;
2. Help modernize the school curriculum;
3. Combat educational problems resulting from regional isolation;
4. Improve the transition from school to work;
5. Raise educational aspirations and expectations;
6. Speed the adoption of sound educational change.

The Laboratory will not become simply another research and development granting agency, accepting proposals, funding piece by piece, project by project, what appear to be the better ideas of a handful of regional scholars. Proposals will flow from the Laboratory as well as to it. Laboratory programs will be sequential and continuing, mobilizing all of the available resources of one region for a region-wide attack on the pressing educational problems of the day.

It is also important to emphasize that the Appalachia Educational Laboratory will be responsive to variations in educational needs within the region. While it must have responsible central coordination it must at the same time establish strong grass roots contact essential if the Laboratory is to be effective in its mission. Communication, at every stage, will flow both ways.

Isolation, a distinguishing characteristic of Appalachia, has significance for the mobilization and coordination of its educationally potent resources. The region's history is replete with the well-intentioned efforts of various religious, educational, and philanthropic organizations seeking to reduce the disparity between

this and other more affluent regions of our nations. Of specific significance, however, is the uncoordinated nature of such efforts. Consequently, the mobilization and coordination of the educationally related resources available both within and without the region are of prime importance to the successful execution of the Laboratory's mission.

From its inception, those working with and for the Laboratory have systematically sought to identify and involve persons, agencies, organizations, and institutions who can aid in identifying the region's needs, determining realistic goals for the Laboratory and means for achieving them, and applying procedures for evaluating the Laboratory's activities.

In August, 1965, an initial organizational conference was attended by more than 60 people from six states representing public and private schools, institutions of higher learning, state departments of education, various civic and cultural organizations, government agencies, and private industry. The level of interest and commitment was such that subsequent meetings were agreed upon and responsibilities were assigned to a representative steering committee for preparing and submitting the prospectus for the Laboratory.

In the subsequent weeks three specific actions were taken to solicit participation from other potential agencies and institutions. A newsletter was sent from the central office to a representative in each state who in turn prepared a cover letter and mailed both documents to all superintendents, college presidents and deans, presidents, and/or executive secretaries of educational organizations, state department of education personnel, school board associations, regional, civic, and cultural organizations, private industrial firms and appropriate governmental agencies. A designated person in each state sought the assistance of some of the above persons and others in surveying the state's resources potentially available to the Laboratory. A subcommittee of the steering committee began preparing the prospectus and the initial drafts were reviewed by the entire steering committee. Following an open regional

meeting in Charleston, West Virginia, recommended changes were made and final approval was given to the Prospectus which was submitted to the United States Office of Education.[1]

Maximum communication was maintained in the region; three states held state meetings to inform potential members about the laboratory, and to seek their advice and commitments. Additionally, in excess of 1,000 copies of the Prospectus were distributed throughout the region under a cover letter from a local member of the steering committee.

In brief, prior to the receipt of the development grant, approximately 55 persons were directly involved in developing the Prospectus. An additional 1345 persons were indirectly involved and/or received information about it. From these persons, 246 public school districts, 5 state departments, 13 private/parochial school districts, 48 colleges, 35 civic/cultural organizations, 18 associations, and 34 industrial firms indicated a sincere desire to support and participate in the Laboratory. That so many people from such diverse organizations or agencies would do so much in such a brief period of time evidences a readiness and willingness to work for the successful initiation and operation of a Laboratory.

Following the award of the development grant effective February 15, 1966, a meeting of the Steering Committee of the Laboratory was called in Charleston, West Virginia, to consider and give approval to a plan for the preparation of a more detailed proposal leading to the operational phase of the Appalachia Educational Laboratory. The task was divided into three major functions:

1. The assessment of regional needs and the mobilization of necessary resources to meet such needs;

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[1] See Quality Education for Appalachia: A Prospectus Proposing the Establishment of a Regional Educational Laboratory, Inventory of Resources Institutes, Agencies, Associations--pp. 40-46, Some Prior Efforts in Research and Dissemination--pp. 47-51, Relationship of Laboratory Effort to Other Educational Research--pp. 52-58.

2. The planning and development of a program of action for the Laboratory; and,

3. The development of a conceptual framework and administrative and organizational structure appropriate to the program and character of the Laboratory.

Set forth in the following pages is a report of the Laboratory's status with reference to each of the efforts. The report should be viewed as an interim report, the basic preparation of which took place in approximately 30 days. In excess of 100 different individuals were involved in the direct preparation of the report at one or more stages. It has been reviewed by the Steering Committee of the Laboratory and approved by that body. Nonetheless, it is a tentative statement demanding intensive effort in the weeks to come.

The Laboratory is incorporated as a nonprofit corporation under the laws of the State of West Virginia and has a Board of Directors broadly representative of the educational agencies and resources of the region. Although the Laboratory is organized on a decentralized basis, the organizational structure provides for effective coordination and control. The general structure of the Laboratory includes a Central Laboratory Office to be located in Charleston, West Virginia, Coordinating Field Units to serve as branch offices of the Laboratory located in each of the six states, and Program Performance Field Units to be located on a temporary basis throughout the region as the particular requirements of the Laboratory program demand.

The program of the Laboratory is set forth in three broad categories, the first a statement of the program responsibilities of the central office of the Laboratory and the Coordinating Field Units or branch offices. Secondly, a program implementation phase sets forth the general outline of six Laboratory programs now in the developmental phase and proposed for implementation during the coming year. Finally, as a means to preserve and augment the innovative character of the Laboratory, a modest program development section has been included.

It is the aim of the Appalachia Educational Laboratory to conduct research, development and dissemination activities which will enable schools of the region to develop self-sustaining, dynamic programs of high quality education. The aim is not simply to redress the inadequacies of the past, but to provide an organizational framework which will make possible the marshalling of educational forces to solve the problems currently blocking high quality education and to enable a continually improving educational environment for all Appalachia residents.

Section 1A

A. ASSESSMENT OF NEEDS

Six goals have been specified as general objectives upon which the Laboratory's programs will focus. Each one of these goals has been a guidepost in the search for data to substantiate both the general need for the Laboratory and the specific needs for a Laboratory program. The six goals have been used as a framework for continuing collection of data to keep the Laboratory and others fully informed of the region's present and changing status.

The strategy for data collection has been to examine National sources as they illuminate the six goals. An examination of the following sources was undertaken: the 1960 census, the President's Appalachian Commission Report of 1964; data from the Stanford Achievement Test, data from Project Talent (a nationally sampled survey of schools), and the Report of the Senior High School Principalship (The NASSP Survey). From these large sources of data, comparisons were drawn between National norms and Appalachian norms in certain pertinent areas. A second source of data has been the six state departments of education, commerce and welfare. The data supplied helped in the compilation of profiles of schools, teachers, pupils, and programs currently being run in each state. Although the cooperation and information have been generaous and plentiful, the data assembled by any two of the states usually lacks strict comparability. Notwithstanding the substantial gaps in the present information, two objectives have been accomplished: one, the sources for relevant educational data have been determined and assurances from such data sources of their continuing assistance have been gained; and two, the present mass of data indicates that the needs stated in the Prospectus were valid (See Appendix C). Continued collections and analyses of such data will enable sound pro-

gram planning and implementation.

The initial data search for this interim report has documented, in part, what has been said about Appalachia's educational lag. A review of the findings both local and national indicate educational handicaps. Hence, if the six goals are to be accomplished the Laboratory must focus upon facts such as the following.

GOAL: REDUCING THE EFFECTS OF CULTURAL DEPRIVATION

Holding power of schools, achievement scores, and selective service mental test failures are a few of the indications of cultural deprivation. In Kentucky, Ohio, Pennsylvania, Tennessee, Virginia, and West Virginia the holding power of students between grades eight and twelve ranks 48th, 26th, 13th, 45th, 49th, and 44th respectively (Table I). Listings of the Selective Service mental test failures rank these same states, 40th, 26th, 37th, 43rd, and 41st respectively (Table 2). Low levels of achievement are also found in Stanford Achievement Test scores of third and sixth grade West Virginia students. Achievement for these students is approximately two and one-half months lower than that of their National peer group. Tables 3 and 4).

These few illustrations are indicative of the large quantity of data reported in Appendix C. They also show that cultural deprivation is pervasive in Appalachia.

GOAL: MODERNIZING THE SCHOOL CURRICULUM

An examination of the stated needs of schools, the quantity of supervisory school personnel and the accomplishments of the students are strong arguments in substantiating the above need. For instance, in West Virginia 75.5% of ESEA, Title I proposals submitted cited reading development as one of the first three priority needs (Table 5). Yet in the high schools in Appalachia only 13% of the schools have full time curriculum supervisors in English as against 35% of the nation's schools (Table 6). These two interrelated deficiencies plus the clinching evidence of low

language and reading achievement of West Virginia students on standardized achievement tests (Tables 3 and 4) attest to the necessity to improve school curriculum. Reading and language, however, represent only one curriculum need. The Laboratory is continuing to collect data which indicate that curriculum revision is essential in many other areas.

GOAL: COMBATING REGIONAL ISOLATION

The President's Appalachian Commission report of 1964 documented the problem of regional isolation. However, isolation exists not only economically but also educationally. A simple but striking example of this is the number of one and two room schools in Appalachia (Table 7). In the Appalachia region of Kentucky alone there are 413 one and two room schools. The lack of student stimulation is exemplified further by the ratio of guidance counselors to high school students: in Ohio it is 1:1439; in Tennessee 1:2328; and in West Virginia 1:1534(Table 8).

GOAL: IMPROVING THE TRANSITION FROM SCHOOL TO WORK

The prospect of holding a job cannot be attractive to young men and women who are ill prepared to compete for interesting and lucrative jobs. Yet educationally Appalachia's population is below the national averages in years of school completed. For example, only 33.4% of people over 25 years of age in Appalachia have completed high school while 41.5% of the nation's adults have (Table 9). Then, too, unemployment rates for Appalachia are higher than the nation's; approximately 7.8 versus 5.1 (Table 10). The distribution of families in low and high income groups shows that Appalachian families are more numerous in the former and less plentiful in the latter. Thirty percent of Appalachian families earn $3000 or less while 21.4% of the nation's families are in the same income bracket. Fifteen percent of the nation's families have incomes of $10,000 or more, contrasted with 9.6% of Appalachia's (Table 11). The three cited examples are interrelated. Industrial opportunity does not exist for under educated people. Education may not be attractive unless there are obvious employment

incentives within the region for educated people.

GOAL: RAISING EDUCATIONAL ASPIRATIONS AND EXPERIENCES

From documented evidence schools in Appalachia offer fewer programs for bright students and have less stimulating and varied programs for normal students. Without such programs the educational aspirations of students will not be raised, nor will the student's educational experience be broadened and deepened. The data from the Project Talent survey show that 20% of the nation's schools offer advanced curriculum in every area whereas in Appalachia only 12% of schools offer such courses (Table 12). In grades nine and ten, 21% of the nation's schools have instituted experimental programs in mathematics and science; however, only 16% of Appalachia's schools have done so. This information reflects the need for expanding both the quantity and quality of course work offerings in Appalachia's schools.

GOAL: SPEEDING THE ADOPTION OF SOUND EDUCATIONAL CHANGE

Sound educational change is obviously needed in Appalachia. Little evidence exists upon which to base procedures for speeding the implementation of such change. No data could be located which detailed the actual process of educational change. In this case, therefore, the lack of success in finding data is in itself supportive of the proposal.

The experience of collecting data through these weeks has illuminated two guidelines to the future.

A tremendous amount of data exists in the area. It exists in many and varied places in the separate organizations of the various state agencies.

This tremendous amount of data must be brought together and stored ina way that makes efficient use possible and rapid.

The writers of the original prospectus foresaw this development and, therefore, engaged International Business Machines to undertake the design of a system which would effectively store, retrieve, and work with Appalachia data. Their report is lengthy and available for inspection. The

highlights of the report are presented in abstract form on the following pages.

AN EDUCATIONAL INFORMATION SYSTEM FOR APPALACHIA

The Appalachia Educational Laboratory is a decentralized organization and is designed to bridge gaps among existing educational units. The needs for rapid communication and up-to-date information exchange are great. The Laboratory must provide the mechanism for a programmatic approach to the solution of Appalachia's educational problems.

Proposed is an extensive intercommunication system among the several coordinating field offices (branches) and between these field offices and the central office. The system will provide a multipurpose educational information network.

The Educational Information System (EIS) will maintain comprehensive information on schools, pupils, resource, staff, and facilities within the service area of the Appalachia Educational Laboratory, Inc. The objectives of the EIS will be to collect, process, maintain, and produce meaningful reports and analyses from data inherent in Appalachia educational activities. Such a system will:

1. Provide educational leaders, researchers, members of the Laboratory, and others with reports and statistical file information.

2. Combat educational isolation in the region through an educational information system and a communications network.

3. Provide current data on the status of education and educationallly related activities in the region.

4. Provide a means for collection of information essential in the planning and evaluation of Laboratory operations.

5. Provide the capability to interrelate and analyze a broad range of data in all functional areas of Laboratory operations.

6. Maintain the flexibility to expand or change the educational information system and Laboratory program as experience and need dictate.

Conceptual Framework

The conceptual framework for the Educational Information System is shown in Figure 1. This represents an initial definition of a meaningful, acceptable, concept, illustrating the scope of the proposed system. It now remains to develop the particular system elements such as files, capabilities, and programs necessary for EIS.

The Educational Information System concept is significant to the Appalachia Educational Laboratory since accurate and comprehensive information is essential for sound planning and decision making. The development of a workable information system entails more than imposing a new reporting requirement. It requires knowing what data are needed, where and how to get the data, and how to process the data to develop and communicate required information.

Equipment

The Educational Information System of the Appalachia Educational Laboratory, Inc., will consist of three components: equipment, computer programs, and procedures. In discussing these components, it is important to remember that they will be combined to produce an efficient and economical total system. The following is the general classification of the required equipment.

Central Processor

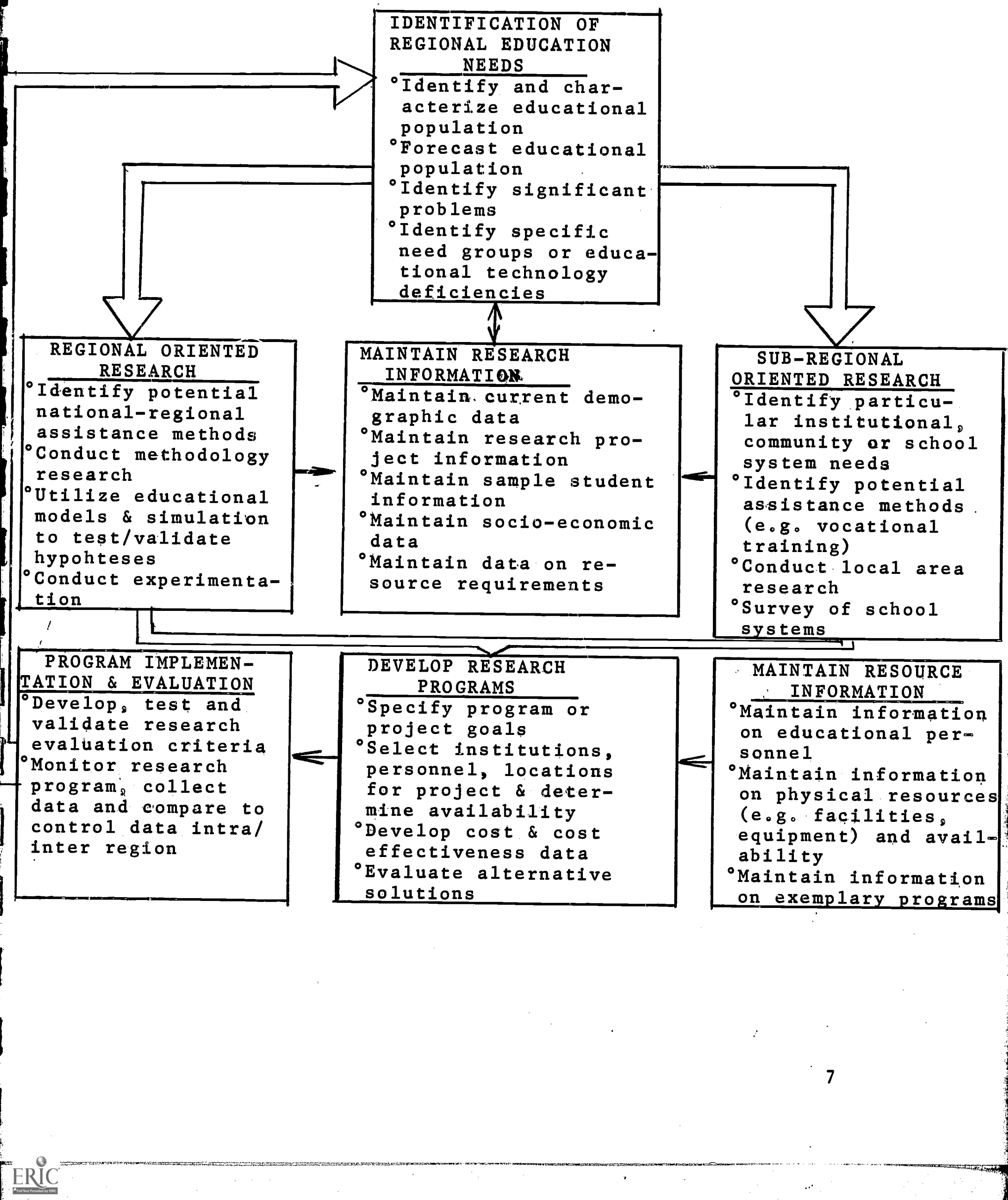
The central processor controls the information flow; it edits, stores, and retrieves data; and it performs the necessary processing of information.

Mass Storage Media

Typical storage devices include magnetic tapes and magnetic disk files.

APPALACHIA EDUCATIONAL LABORATORY, INC.

EDUCATIONAL INFORMATION SYSTEM CONCEPT



Input-Output Devices

The most common method of input and output to the system will be punched cards, magnetic tapes, and high speed printers. However, additional equipment may be required such as visual, graphic, and keyboard devices. Tele-processing will be a control feature of the system both for query capability in research and statistical information and for communication of data throughout the region.

The computer programs control the entire system operation in input, editing, storage, retrieval, file maintainance, formatting, computing, and output. A supervisory or executive program will control and monitor the operation. It will call on the other programs that will carry out the functions of the system.

Data Bank

The function of any information system is to help the user make critical decisions and accomplish specific purposes. In the case of the Educational Information System, there will be many users. These users represent many different functional areas of the Laboratory; namely, researchers, administrators, principals, teachers, boards of education, counselors, planners, and countless others. Required will be detailed data on pupils, staff and facilities. In many cases, data from more than one of these three areas must be combined in order to carry out a specific task. The users should have the capability to perform statistical and other analytic procedures. They should be able to obtain information easily and without long delays.

Laboratory programs will be based on the identified educational needs of the region; therefore, it is essential that detailed and quantitative information be available to describe these needs. In this way, appropriate programs can be selected for Laboratory implementation;

these programs can be structured so that they have a maximum beneficial effect.

School Systems Data

To determine the educational resources of the school systems in the region as well as the effect of the implementation of educational innovations, it will be necessary to have data such as the following: (1) school systems (administrative services, tax rates, research projects); (2) schools (facilities, enrollment, curriculum offered); (3) teachers (education, courses taught, salary, mobility); and (4) libraries (type, holdings, circulation).

Regional Demographic Data

This information is needed to understand better the educational environment and the probable effect of educational innovation. It will also assist in identifying curriculum requirements, i.e., vocational training for anticipated employment opportunities. These data will assist local school planners to determine the needs for new facilities and personnel. Information will be needed on population, industry, employment, and occupations. Also, needed socio-economic data include literary, welfare, income, and delinquency statistics.

Project Data

Since Laboratory programs may be composed of interrelated projects performed at different locations over differing periods of time, effective coordination requires that program leaders and project leaders have current and accurate data on project status and funding. In this way, projects can be properly interrelated and schedules, budgets, and facilities can be adjusted to provide close and effective management. Typical information needed includes project title, objectives, personnel, start date, end date, total budget, expenditures to date, and relationships to other projects.

A project file will provide detailed information on those projects identified with or operated by the Laboratory. Other projects conducted within the service area of the Laboratory, however, will be indexed with Laboratory projects. No attempt will be made to duplicate the storage system and information of ERIC Central. It is planned that at least a key word index of other projects be maintained to assist Laboratory researchers. It is recognized that research conducted in the universities and colleges, including dissertations, will present an additional source of information to be included in the project file.

Due to the scope of the Laboratory operations, the volume of work, the number of persons, and the costs, accurate record keeping, as well as speedy access to data and information are necessary. Cost accounting will be an integral part of the administrative operation of the Laboratory and should serve the dual purpose of facilitiating the total operation of the Laboratory and assisting in the most efficient and effective utilization of the Laboratory's funds.

It is anticipated that the Laboratory will maintain an educational reference library. This will include books, periodicals, and technical reports generated by the Laboratory and other organizations. The Educational Information System must ensure that this information reaches Laboratory members of the regional educational community. The storage, retrieval and dissemination of abstracts, technical reports, and

supportive data will assist in surveys of the literature and provide an awareness of current regional and national research.

Human Resources Data

Successful implementation of the Laboratory programs requires the participation of many organizations and individuals having a wide variety of experience and skills. Complete and current data are needed to ensure that the best capabilities of the region can be solicited. In addition to the academic organizations in the region there are many museums, libraries, foundations, research organizations, and industrial firms that can make significant contributions to the Laboratory programs. Information is needed on the skills and experience of persons associated with all these groups.

It is planned that the central computer for the AEL will be used to facilitate administrative functions associated with the Laboratory's general operation. Those functions should include, but not be limited to payroll and associated problems for AEL personnel, cost accounting, inventory control, quality control studies, property files, and limited computation ability during the first year for scientific problems.

System Implementation

The Educational Information System will attain operational status in a modular or incremental fashion. Once sufficient data are

available to create a reasonably sized file, basic programs have been tested, and Laboratory personnel trained in major systems operations, an interim operational capability can be established. Figure 2 indicates the structure of the staff in charge of the Educational Information System.

During the interim period, the system will be closely monitored to correct any errors or oversights, and to ensure that all procedures, methods, and schedules are effective and feasible. Once the majority of file data have been preapred for machine processing and necessary modifications and adjustments made to systems operations, the system can be considered fully operational. The close monitoring and careful evauation described above should be continued, and further changes made as required.

As with any new system, operational training will be required. This training must not only include normal machine operation training, but thorough systems training must be provided for personnel involved in each functional area. Users of the system and its data must know its capabilities and limitations if it is to meet the established objectives. AEL will develop the necessary training materials and courses.

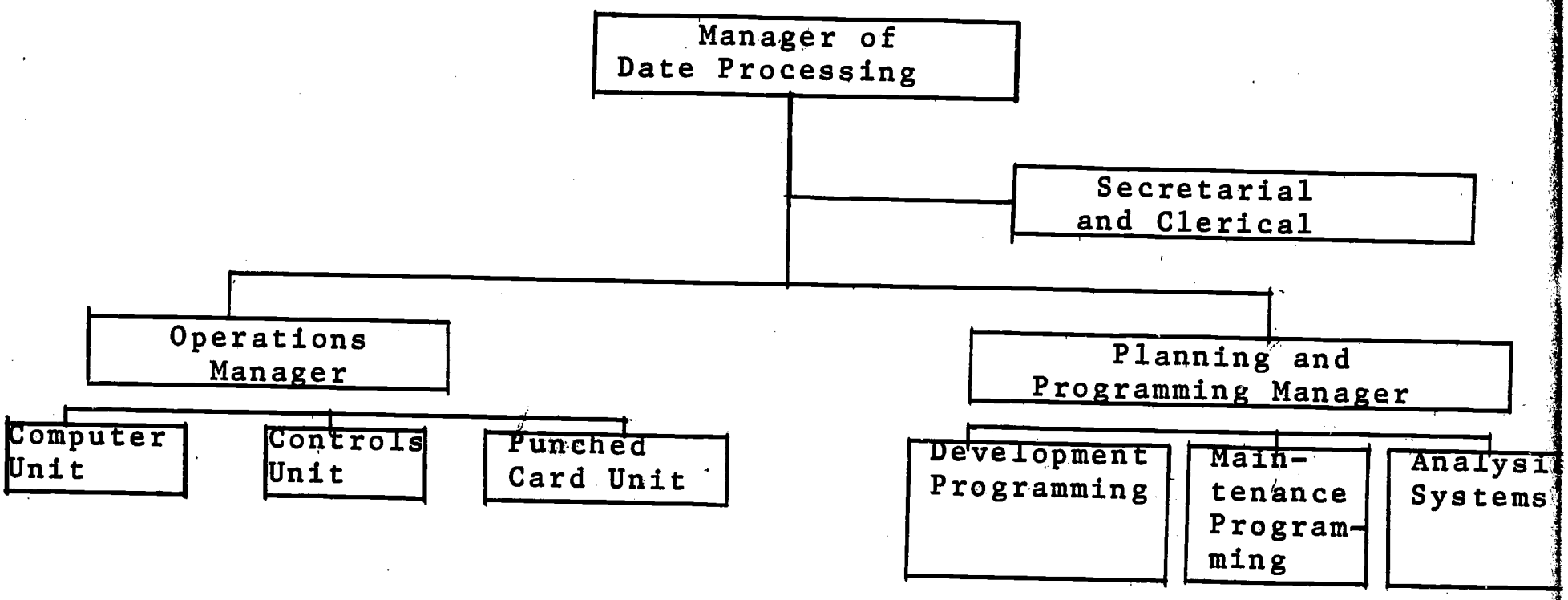
In addition to the tasks outlined above, the Laboratory will develop criteria by which the system may be tested and evaluated. Successful completion of systems tests against these criteria and delivery of the systems documentation will signify successful completion of the project.

In order to reach its information storage and retrieval objectives, the Laboratory proposes to contract for file development services from appropriate data processing and management consulting firms. The proposed development activities would be carried out in the Laboratory's central office and would utilize Laboratory-rented data processing equipment.

APPALACHIA EDUCATIONAL LABORATORY, INC.

EDUCATIONAL INFORMATION SYSTEMS

Organization Chart for Computer Center



Tentative Budget for EIS and Administration of Computer Center

	1966-67		1967-68
AEL Management			
1 Director of Computer Operations	$ 12,000	(9 mos.first yr.)	$ 16,000
1 Operations Manager	7,000	(6 mos.first yr.)	14,000
1 Project & Plans Manager	10,500	(9 mos.first yr.)	14,000
1 Secretary	3,750	(9 mos.first yr.)	5,000
1 Clerk-typist	3,000	(9 mos.first yr.)	4,000
AEL Technical Staff			
1 Systems Analyst	-------		12,000
6 Programmers at $12,000 ea.	-------		72,000
1 Systems Librarian	-------		6,000
AEL Administrative			
2 Key Punch Operators @ $4,500	5,600	(7 mos.first yr.)	9,000
4 Machine Operators @ $6,000	14,000	(7 mos.first yr.)	24,000
2 Machine Supervisors @ $9,000	12,800	(7 mos.first yr.)	19,000
Total Management, Technical & Administrative	$ 58,650		$195,000
Computing Equipment (Rental)	124,608	(6 mos.first yr.)	264,233
1401 DPS 9020/M			
1401 Tel. DPS 11150/M			
Unit Record Equip. 616/M			
eleprocessing Data Lines	6,600	(6 mos.first yr.)	13,200
Total Management, Technical Administrative & Equipment	189,858		472,433
Contracted Technical Service for systems design & development	260,000		220,000
Grand Total	$449,858		$692,433

Section I

B. MOBILIZATION OF RESOURCES

A mobilization of resources throughout the region has been an aim of the Appalachia Educational Laboratory from the beginning. It has been a continuous process and one that is still continuing. The developmental funding has made possible a more intensive and more definitive mobilization effort.

Involvement has taken many forms. For example, two individuals spent full time for a period of weeks gathering data upon which both general and specific needs could be justified. In all, 110 individuals were called upon to search records, locate studies, and compile isolated data for this report.

The development of programs reveals the resource commitments of the region. From each state several persons with special knowledge and skills in the six program areas were invited to assist in the development of the initial proposed programs for the Laboratory. Forty-five convened first to explore possible programs, to select those most practical and desirable, and to outline writing responsibilities. This was followed by considerable work at home and at other meetings.

It is estimated that this committee tested their ideas with some 120 additional persons so that a total of approximately 165 individuals have thus far been involved in programming for the Laboratory.

In the organization and incorporation phase, each state was represented on a task force by two or more persons. They in turn, sought the advice and reactions of 52 additional people. Working both as a Committee and as individuals the organizational design for the Laboratory has been reviewed and criticized by approximately 62 individuals representing a wide range of agencies, institutions, and organizations.

The remainder of this section is devoted to the work of the membership committee. It consists of a state representative assigned primary responsibility for the identification, securing and dissemination of information and the ultimate involvement of those persons, organizations, institutions, school districts and governmental agencies which should be involved as participants in the Laboratory's operation. To date in each state, the committee member has:

A. Compiled a mailing list of these individuals and groups who are currently involved in educational activities in Appalachia and of those groups who have potential contributions to make to the Laboratory. Included in this list are:

   1. State Superintendent of Education
   2. Assistant State Superintendent of Education

3. State Educational Association Executive Secretaries and the Presidents
4. All College-University Presidents and Deans
5. All Superintendents of Schools in the Region.
6. Community Action Committee Chairmen in the Region
7. State and District Public Health Agencies
8. State Department of Commerce
9. State Department of Labor and Industry.
10. State and District Labor Leaders
11. State Industrial Development Leaders
12. State and Regional Chamber of Commerce Chairman
13. District Chairmen of State Newspaper and Radio Associations
14. Executive Secretary of State Television Authorities
15. District Chairmen of American Medical and Nursing Association
16. State and/or Regional Directors of National Agencies including: Department of Agriculture, Department of Economic Security, Office of Economic Opportunity, Department of Interior, etc.
17. Regional Directors of Agricultural Extension Programs
18. Directors of Private Philanthropic Organizations
19. Executive Secretary and President of State School Board Association
20. Executive Secretary of Cultural and/or Philanthropic Organizations

B. Mailed a regional newsletter describing current status of and plans for the Laboratory.

C. Included in the mailing a cover letter over the state member's name calling attention to the unique significance of the Laboratory to the state and region and urging attendance at a state meeting to receive future information and to offer their counsel for its development.

D. Included in the mailing a post card asking for an indication of interest and a decision regarding attendance at the state meeting.

E. Devised a questionnaire as a follow-up to the postal card as they are returned.

F. Devised a second questionnaire seeking specific data and level of commitment at the state meeting.

G. Planned and scheduled state meetings for the first two weeks.

Since March 13, almost 1,400 organizations in five of the six states* have received information about the Laboratory. By March 22, responses had been received from 746 persons representing 607 organizations indicating they would attend a state meeting. The following table summarizes the contacts made, the number indicating willingness to participate, and the number of persons who anticipated attending state meetings.

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* These data do not include Virginia whose representative has been unable to report because of an unexpected hospitalization.

TABLE

Responses to Contacts as of March 22, 1966

Organizations	Number Contacted	Number to Participate	Number of Persons to attend State Meeting
Colleges-Universities	95	64	124
School Districts	652	329	395
Departments of Education	5	5	32
Community Action Programs	157	67	42
News Media	175	17	34
Federal Agencies	37	7	10
State Agencies	46	25	23
Business and Industries	65	29	26
Organized Labor	7	2	5
Professional Associations	26	13	6
Civic Agencies	40	9	19
Private Philanthropic	28	12	8
Miscellaneous	62	28	22
TOTALS	1395	607	746

It should be noted that within this very brief period, over 44% of the organizations contacted have indicated a willingness not only to participate in the Laboratory but also to send 746 representatives to the state meetings. At these meetings, specific resources will be identified and committed.

The continuing inventory of the region's critical mass of resources through planned state meetings, questionnaires, and further search should enable the Laboratory to establish an initial resource file.

It is anticipated that such file would be cross-indexed according to the following:

(a) nature of resource;

(b) Laboratory's purpose or purposes to which the resource is related; and

(c) person or persons to be contacted regarding the resources' mobilization into the Laboratory.

Such a file would be cross-checked against existing files maintained by such organizations as the Council for the Southern Mountains (Berea, Kentucky) and the Appalachian Center (Morgantown, West Virginia). Its continuous evaluation would become a responsibility of the Laboratory's central office, where it would be available to the entire region through the Laboratory's education information system.

Future Plans

Obviously the report does not adequately describe the degree of mobilization anticipated by the time the final report is filed. The following are actions proposed from this point.

1. State Meetings - Approximately 1,000-1,2000 people will attend the six state meetings. A questionnaire will be used to determine the special resources (personnel, facilities, equipment, etc.) each participant is willing to commit and the level of that commitment. Each meeting will follow a common format:

   a. Welcome

   b. Background of the Laboratory

   c. Initial Programs Proposed for the Laboratory

   d. Luncheon-Discussion Questionnaires Completed and Returned

   e. Questions-Discussion

   f. Charge to Participants

2. Programs - For each program proposal an analysis will be made to identify the types of resources needed and those available to implement, support, and reinforce said programs. Negotiations will be launched to secure commitment from appropriate authorities for securing and integrating such resources into such programs.

3. Titles I, II, and III of the Elementary and Secondary Education Act - It is hoped that the resources made available through the Laboratory and those from these titles can mutually support each other in the achievement of common goals. Wherever possible and practical, efforts will be made to identify and share such resources in the various programs developed in the Laboratory.

4. Revised Mailing Lists - Continuous revision of the mailing list is considered essential. As new groups with resource potential are identified, they will receive basic information about the Laboratory and the newsletters, and they will be offered an opportunity to become participants in the Laboratory's activities.

5. Development of Resource File - A continuing effort will also be made to develop a file of all resources within the region. Past studies, experimental projects, etc. will be collected and classified for use by the Laboratory. As new resources are identified and commitment from them secured, they will be classified and filed for use as the Laboratory matures.

Section II

LABORATORY PROGRAM

A description of the Laboratory program is set forth in three broad categories:

1. Program organization and administration;
2. Program implementation;
3. Program development.

Following is a brief outline of proposed program efforts in each of the three areas. The section will conclude with a more detailed statement concerning each of the areas proposed for immediate program implementation.

Program Organization and Administration.

The program of the Laboratory's central office staff will:

1. Coordinate the wide range of Laboratory activities throughout the entire region.

2. Interpret Laboratory programming and receive consultation from school systems, state departments, colleges, universities, and other relevant groups throughout the region.

3. Implement an educational information system for continuing need assessment, program planning and evaluation.

4. Organize, implement, and coordinate the Laboratory Coordinating Field Units.

5. Organize, monitor, and coordinate activities of program performance field units.

6. Coordinate activities of the Appalachia Educational Laboratory with those of other regional educational laboratories, the research and development centers, and other significant research, development and dissemination activities nationwide.

The purpose of the Coordinating Field Units is to act as a branch office of the central office of the Laboratory. Program direction will come from the central office and will include functions outlined above. In addition, the Coordinating Field Unit program activities for the first year will focus on the five functional areas explained below.

Comprehensive Curriculum and Materials Center. Several observers have suggested that the primary and the distinctive function of the regional educational laboratories may be that of product development. The Coordinating Field Unit will provide the ideal location for a truly comprehensive collection of such "products". In addition to the wide range and continually growing collection of commercially available educational materials, there is a sizeable and expanding resource of materials, products and procedures developed outside the commercial channel. In the field of English alone, for example, there are the field tested materials developed by Paul Olson at the University of Nebraska, Kitzhaber's work at Oregon, Edwin Steinberg's work on English for the college bound, Mary Tingle's work at the University of Georgia, Stan Kegler's work at Minnesota, or Daniel Fader's use of consumable materials (University of Michigan). Similar efforts such as work at the elementary level in mathematics concept formation at Florida, "Project Physics" at Harvard, Fenton's work in Social Studies materials at Carnegie Tech, the University of Georgia work in anthropology for the elementary school and other efforts are underway in several other curricular areas. Additional "product development" activities will be carried out by each of the regional educational laboratories and research and development centers.

When the laboratory is fully developed, no school in Appalachia will be more than seventy-five miles from a Coordinating Field Unit. As part of a carefully phased process, each Coordinating Field Unit will be equipped as a comprehensive materials depository. Internships for curriculum personnel throughout the region, mobile units, tours, working areas and consultant service for curriculum committees and workshops, research and development backup, and other methods will be used to disseminate the contents of the center throughout the 75 mile radius.

Development and operation of the center will be a major responsibil-

ity of the Laboratory central office in general and the Coordinating Field Unit in particular.

Innovation Inventory and Appraisal. The Elementary and Secondary Education Act of 1965, the various Office of Economic Opportunity programs, the Vocational Educational Act of 1963, and other federal legislation have sparked many innovative educational programs throughout the region. Many more truly innovative ideas are needed. Help is needed from many sources; the Laboratory is one such source.

An inventory will be made of all ESEA Title I and III proposals and projects. These will be monitored as they develop. An attempt will be made to obtain basic data on all other innovative and promising educational activities and programs. The inventory and the follow-up will be made in order to coordinate, as fully and usefully as possible, Laboratory programs with these programs, and to disseminate the more promising of these innovations throughout the region. Modes of dissemination will include newsletters, site visits, audio-visual packages, and other means of establishing and spotlighting educational models. The Coordinating Field Units will be the initial mechanism for the Innovation Inventory and Appraisal Project.

Dissemination Conferences. The Laboratory must reach every school and school system in the service area of the Laboratory. Critical target groups for speeding sound educational change include school administrators, school board members, teachers and the public at large.

If the Laboratory is to be effective, it must sustain a continuing dialogue with such groups. As a means of communicating Laboratory objectives, disseminating research and development findings, and appraising regional need, such work sessions will prove essential. The Coordinating Field Units will provide an ideal location for such activities.

Project Coordination. Most of the research, development and dissemination projects of the Laboratory will require field coordination. A project directed from one point in the region may be carried out in another. Data collecitons, school contacts or institutional coordination may be necessary. The Coordinating Field Unit will be essential for such project coordination activities.

In summary, Coordinating Field Unit programming will include the development of comprehensive curriculum and materials center, innovation inventory, and appraisal, dissemination conferences, and project coordination.

The estimated first year budget requirement for a Coordinating Field Unit is approximately $125,000 distributed in a manner as shown below:

Assistant Director and Head of Coordinating Field Unit	$16,000
Materials Consultant	14,000
Intern positions, 3 @ $8000	24,000
Supporting personnel 3 @ $8000	24,000
Secretarial Assistance	20,000
Space and Maintenance	8,000
Equipment, Supplies	10,000
Communication	9,000
	$125,000

Program Implementation. Immediately after the development contract was signed, panels were named to consider certain specific Laboratory programs relevant to identified regional needs. Members of the panels nominated by Steering Committee members and others were broadly representative of the various agencies of education and of the geographic spread of the area. Five panels composed of more than 40 individuals concentrated their attention on the six topics. The purpose was to effect broad regional involvement in Laboratory program development.

The panels met for two intensive three day work sessions at the beginning and at the end of a two-week period. Each panel assigned one or more of its members to work through the interval between meetings. The preliminary results of this intensive effort included six programs of action which have been reproduced, are on file, and may be examined in the Laboratory's temporary office. Abstracts of the programs have been made and are a part of this report.

The initial program directions cover the broad range of a Laboratory's operation from basic research, replication and training to dissemination and demonstration. They include product and technique development, innovation and the study of the process of change. The programs will be conducted throughout the entire region and will be directed toward students at every age level from preschool to young adult. The work of the Laboratory will utilize professional help from outside the educational profession. In short, the programs suggest the beginning of a region-wide educational thrust.

The panels suggested that to make a long range attack on the deficiencies of the region, the obvious place to begin was with the learning of language. Without language or with inadequate language skills, the individual cannot realize his full potential. In Appalachia, developing language skill has number one priority as evidenced by the fact that 75% of the Title I proposals from West Virginia were concerned with language

Two of the programs have language as their central focus. Both will begin at a common point, the identification of the basic language content necessary for communication. Basic research will be conducted in both programs. The best of practices and materials drawn from two approaches to the teaching of language will be developed and adapted as necessary to reach the performance goals set. These two programs will thus operate in an initial research and development phase, leading to the development of a language curriculum, including goals, techniques, and materials which can be widely demonstrated and disseminated over the entire region. Such product and material development will require a heavy investment.

The two language programs will be dissimilar in that one will involve working with preschool children and the other with first-grade children. This difference is more than one of level, for it is a difference of point of entry into a continuum of learning. The preschool program will be primarily concerned with developing skills of oral language - speaking and listening comprehension with their attendant learnings of vocabulary and language structure. The first grade program will also be concerned with oral language and language structure, but primarily as these affect the beginning stages of learning to read.

The two programs are to be executed together because each can share and build from much of the same basic research, test development, and to some extent, materials. Hopefully, findings and resultant products will be mutually supportive in that they will extend knowledge of effective language teaching across not only the two grade levels studied, but also the continuum from beginning instruction to a relatively advanced point of learning.

The need to raise educational aspiration will be the focus in two programs. One will explore various types of "helping" relationships. Classroom teachers, working closely and as a concerned friend with one child, each will explore possible demonstrable differences in the child's outlook and educational aspiration. This program will operate at the fifth and sixth grade levels. The focus of the effort is viewed as innovative, albeit the idea is an old one. The techniques learned will make possible replication and continued evaluation across the whole of Appalachia, directed at improving the educational aspiration levels of children and youth.

Another program will attempt to improve the articulation of youth from school to work utilizing certain techniques already tried out and supplementing these with systematic development and field testing of supporting materials. Middle class schools are poorly articulated with the world of work and non-college post high school alternatives. Involved is the building, packaging, field testing and marketing of a "school to work" student-parent counseling program throughout Appalachia.

Cultural deprivation results in more than educational lacks; it may mean a complete ignorance of many aspects of the culture itself. A fifth program in this proposal will make possible the taking of strong, positive steps to bring youth a recognition of the arts and a chance to

become a participant to learn at first hand some of the sweep of the world's culture.

The sixth suggestion received by the panel focused on the need in Appalachia for educational innovation and change. The forces which have operated in the past to make such innovation imperative are still operating to inhibit change. Appalachian communites are suspicious of change and fearful of its inroads. The process of change itself is too little understood but in Appalachia special knowledges and techniques must be gained if change is to become operative. The sixth program is designed to study change as a process in Appalachia. The future success of the Laboratory requires that the special rules governing change in this area be understood.

From the beginning idea, through research, to product development, field testing, and evaluation to demonstration, dissemination, in-service training and finally to implementation throughout Appalachia - this is the concern of the program of the Appalachia Eduational Laboratory.

Program Development. In the initial phases, substantial Laboratory concern must be directed to the question of program development. Once launched on a particular research, development and dissemination effort, continuing investment of Laboratory resources over an extended period of time will be required. The appropriateness of the problem choice, the extent to which the approach holds promise of being both truly innovative and effective and finally the accurate estimation of the probable potential impact of the project on the quality of eduation in the region, suggest the necessity of a modest but continuing investment in program development activities.

Much of this effort will, of course, be carried out by the central staff of the Laboratory. It is also important, however, that the Laboratory have available sufficient funds to be able to respond to certain innovative, promising, but undeveloped program alternatives. Modest prototype or feasibility studies must be conducted, the results of which will be essential in sound program development.

Stated in another way, if the entire Laboratory program budget must be committed to a series of predefined and continuing projects budgeted 18 months in advance, it is unlikely that the Appalachia Educational Laboratory will realize its true potential as a positive force for educational innovation and change within the region. The program development phase, though modest in its proportionate claim on the Laboratory budget, is viewed as an indispensable aspect of the Laboratory program.

PROGRAM ABSTRACTS

Preschool Education Program

This program will develop a curriculum, teaching techniques, and materials for meeting the language needs of culturally disadvantaged preschool children of Appalachia. A common criteria for language performance will be developed. Advocates of two differing philosophies of preschool education, one child development oriented, the other language-centered, will develop materials and techniques as they proceed to reach the stated language performance criteria. Their efforts will be contrasted and evaluated.

Rationale

The necessity to overcome the educational retardation caused by the cultural deprivation and regional isolation of Appalachia has been amply documented elsewhere in this report. At no level does the need exist more poignantly nor the reward for successful remediation appear so worthwhile as at the preschool level. Head Start programs have been instituted on a broad scale in a beginning attempt to meet this need.

Yet the need has not been satisfactorily met because our knowledge of learning does not provide clear guidelines for the direction of instruction of preschool children. The procedures of instruction used in preschool classes are distillations of child development theory and practitioner's opinions unsupported by definitive research. Evaluation is difficult and research results are difficult to interpret because no one can be sure of the duration of the presumably favored results.

The present need is obvious. Preschool children in Appalachia need an educational program to overcome cultural deprivation and establish a strong background for learning. Yet our present knowledge is not sufficient for us to state with assurance that a given program will accomplish the goal. The research and development proposed in this program will start by establishing performance criteria. The best of current practice will be exposed to constant refinement to enable children to meet those criteria.

Preschool Education Program

The best of current practice seems to fall under one of two opposing points of view. Some programs establish an environment rich in experience which in effect provides a hothouse within which a child's language competency may flourish. Others concentrate on direct teaching of language. By developing first a common statement of language competence stated in terms of performance, the relative strengths and weaknesses of the two basic programs can be determined and a welding of the strengths can be accomplished in terms of materials and techniques of instruction.

Objectives

A. The major objective of this program is to develop curricula and devise teaching procedures and materials which will enable teachers to help preschool children overcome permanently the language development defects caused by cultural deprivation and regional isolation.

B. The first objective is to describe definitively those aspects of language essential to competent communication.

C. Some intermediate objectives are:

1. To build a criterion measure which will serve as both a rank-order locator and as a diagnostic guide useful for specific planning of instruction.
2. To devise and evaluate teaching procedures and materials.
3. To decide through performance evauation whether the child-development approach or the language-centered approach or a combination of modification or elaboration of the two achieves the objective of language proficiency most efficiently.

Preschool Education Program

Procedure

A. Location: The study will be located in Washington County in Pennsylvania's southwest corner. The county is typical of Appalachia geographically, economically, and culturally. Two school districts have offered facilities to the project. The costs of school maintenance, classroom space, and some of the transportation costs will be absorbed by the school districts.

B. Popualtion: All children who will be eligible for first grade in September, 1968 and who would be eligible for a Head Start program will be considered the total sample of the study. All will be invited to attend a two-week program during the summer. It is expected that there will be approximately 80 children in each group. These children will begin a full year's program in September, 1966.

C. Staffing: The program will be under the direction of a full-time coordinator. The two groups will be under the direction of skilled professionals. The eight teachers will be carefully selected on the basis of suitability for preschool teaching and interest in the basic questions posed by the study. Each teacher will have the assistance of a paid teacher aide. In addition, parents will be encouraged to participate as volunteer helpers.

D. Program Development: A team composed of leading proponents of the two philosophies will be convened to identify the language content to be taught. They will devise various measures including a language performance criterion agreeable to both. From their numbers or at their suggestion leaders will be named to conduct the teacher and teacher aide training programs. The director of each group will participate in these sessions. From that point on each program will be in the hands of the project director.

Preschool Education Program

Evaluation

Evaluation will be accomplished by using a variety of criterion measures developed for the program. Particular emphasis will be placed on a language measure designed to test optimum language performance, one suited to culturally favored rather than culturally disadvantaged children.

In addition, some evaluation will be forthcoming from a bringing together of the director of this study, the directors of the two treatment groups and the teachers from each group. These sessions will focus on building a preschool language curriculum with teaching directions and materials. The areas of strength in each treatment will be examined and made a part of the curriculum whenever possible.

Outcomes

The preschool language curriculum will be established. Materials and teaching techniques will be developed, tried out, evaluated and if worthy, be ready for publication. The new curriculum will be suitable for helping children overcome the defects resulting from cultural disadvantaged and regional isolation.

A Primary School Program Designed to Improve the Language Instruction in Appalachia

Two curriculum programs, one based on increased oral involvement of the child with his environment and the second based on greater attention to the structure and concepts in language, will be developed and field tested in selected primary schools. Special criterion measures will be developed to assess the relative efficacy of these two approaches to beginning language and reading instruction. As effective procedures are identified, a program of dissemination will be undertaken to bring them to the attention of educators in the Appalachian Region.

Rationale

Every survey of educational needs in Appalachia has at least one common finding -- Appalachia has a disproportionately large number of children with "below grade" language skills. In West Virginia, for example, a state-wide administration of the New Stanford Achievement Test showed third grade children averaging on the various language sub-tests from four months to a full year below grade. Sixth grade children averaged from five months to slightly more than one year below grade level. (See Tables in Appendix C.)

The implications of substandard language development for the individual and the culture in which he resides can be described on several levels, ranging from the simple observation that children who have difficulty reading have difficulty with school work, to the theoretical argument that language concepts serve as mediators and the absence of such mediators retards intellectual development. Because of the fundamental importance of language in freeing the individual from the confines of his immediate environment and exposing him to the vast world of ideas and opportunities which he cannot know without it, improving language instruction in Appalachian schools achieves major importance.

The purpose of this project, therefore, is to develop a program of language instruction which meets the special needs of Appalachia's

schools. As an initial attack on this problem the Laboratory proposes to develop and explore the efficacy of two experimental strategies for teaching skills in the schools of Appalachia.

There is among "experts" in the field of linguistics and language arts a great diversity of opinion as to how language skills can be most effectively developed in young children. Reading in particular has been the focus of perhaps more "research" than any other area of the curriculum with a literature estimated at between 8,000-10,000 studies. If one added the research studies on the other language skills (speaking, listening, and writing) the available body of research efforts in this combined area would be twice as great.

From among the various proposals for developing language skills in young children three generalizations seem clear: (1) the current methods in wide use in Appalachian schools (the basal reader, group instruction, etc.) are not effective enough; (2) conclusions based on research in non-Appalachian communities have limited applicability to schools in this region; (3) very few studies of language instruction have been carried out in Appalachian settings. For these reasons, therefore, the Laboratory proposes to develop and evaluate new Appalachian-based reading and language programs.

Objectives

1. To develop and evaluate new methods and materials to meet the reading and language needs of Appalachian youth.
2. To learn the relative strengths and weaknesses of two theoretical bases for instruction in reading and language and to determine the feasibility of combining the strengths

of each.

Method

For the Laboratory's initial series of field trials two experimental programs have been selected for developmental work and comparison. These are Modified Multisensory Approach (MMA) similar to that described by Lamoreaux and Lee (1943)[1], Bradley (1956)[2], and Fast (1957)[3], and a Syntactic Approach (SA) proposed by Bereiter et.al.[4]

The modified multisensory approach (MMA) is a synthesis of an experiential model which moves in steps from, (1) sharing an experience, to (2) discussing the experience, to (3) dictating the experience, to (4) reading about the experience.

The method to be employed in this field of trial would emphasize experiences which were highly relevant to the individual familial and community experiences of the child. A heavy emphasis would be placed in the MMA on diagnosing the present understandings of the child and individually planning the language experiences most appropriate for him. The instructional appeal of such an approach to language development is its gradual transition from the language patterns of the home and community to "standard" English--from the linguistically familiar to the

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1 Lamoreaux, Lillian A., and Lee, Doris M. Learning to Read through Experience, (New York: Appleton-Century-Crofts, 1943).

2 Bradley, Beatrice E., An Experimental Study of the Readiness Approach to Reading. Elementary School Journal, 1956, 56, 262-267.

3 Fast, Irene, Kindergarten Training and Grade I Reading. Journal of Educational Psychology, 1957, 48, 52-57.

4

grammatically and phonetically "correct".

The syntactic approach (SA) is based on the premise that language is not merely a vehicle for communication but is also a tool for teaching concepts. Thus if the child understands the logic of certain verbal expressions he can use these expressions to develop higher order concepts. In this framework words and syntax serve much the same function as numbers and operators do to the mathematician. Acoording to Bereiter, "...there is no reason for the language program to operate within the framework of the child's existing language skills. ...The language program teaches a language--from the beginning--not a dialect. ...it is designed to deal with what he does not know or knows only inadequately."

Although fundamentally different in their approach to language, both methods have experimental evidence to support them and are both directed toward the same goal, the improvement of beginning language instruction.

The first half year of the project would be devoted to identifying the elements of language basic to effective communication, the establishment of criterion measures to evaluate competent language performance, and to the development of teaching procedures and materials for each of the basic treatments proposed.

The second half year would be devoted to initial tryout and evaluation of the materials and techniques developed. Schools would be identified and selected which were willing to work in the program the following year.

During the summer of 1967, the teachers who would be involved will be brought together for a four-week period for training in the use

of the new materials and for their help in further revisions of the new materials.

The second year of the study would involve the introduction of the MMA program into the first grade in four of the participating schools (selected at random) and the SA program in first grade of the remaining four schools. Each school would be selected so as to have two teachers involved in the experimental program.

The Laboratory would provide a Project Director who would oversee the whole program. A treatment group director will be appointed who will work half time for the director of the project in developing materials and techniques and training teachers.

A team of resource people with special competencies in the sociology and anthropology of Appalachia in linguistics and language analysis, in instructional media and child development, will meet to begin the task of developing curriculum materials and procedures and through regular meetings participate in revision as they prove necessary.

Evaluation of the program will be continuous and according to criterion measures developed for the program. Baseline data will be gathered through a combination of available and to be constructed measures. Essentially since this is a curriculum development program, evaluation becomes a part of every teaching lesson. Each portion of the program will contain its own evaluation techniques developed along with the teaching program.

Final evaluation will be obtained primarily through measures developed originally along with the statement of criteria of effective language performance.

A Primary School Program Designed to Improve the Language Instruction in Appalachia

If, as is expected, one or both of the revised language programs appear to be substantially more effective in producing pupil growth in language skills, indicated modifications will be made and a more extensive field trial will be attempted during a third and fourth year of the project.

The study proposed herein is not simply a test of the hypothesis that one method of teaching language is superior to another. Such comparisons can be found ad nauseam in the available literature. What is being proposed here is a curriculum development project which has as its focus the peculiar problems of language instruction in the schools of Appalachia. It is indeed probable that extensive modification of any existing method will be necessary before a really effective program of language development will be identified. As procedures and materials are demonstrated to be effective in schools in this region, the Laboratory will undertake an extensive demonstration and dissemination project to bring the findings of their field trials to the attention of primary school educators throughout the Appalachia Region.

Using the Helping Relationship to Raise the Educational Aspirations and Achievements of the Appalachian School Child

It is widely recognized that the quality of the relationship between teacher and pupil crucially influences the learning that takes place in the classroom. A pupil who perceives his teacher as uninterested in him as an individual is unlikely to respond to the teacher's attempt to instruct with highly motivated and organized efforts to learn. This study proposes to investigate the extent to which a teacher's sincere and continuing interest, as expressed on a one-to-one relationship, can contribute to positive behavioral change in a student. By developing experimentally controlled variations of the basic teacher-pupil helping relationship, the study will clarify some of the factors which make this relationship more and less effective in inducing pupils to use appropriate modes of coping with classroom challenges.

Rationale

There are many ways in which the inadequacies of education in Appalachia may be documented. Statistics on academic achievement levels and school dropouts present a clearly quantifiable facet of the problem. Such statistics are, however, incomplete, for they do not convey a picture of the young children who produce these dreary statistics or the school-community contexts in which this appalling failure is to prevalent.

For many children in Appalachia, school is a succession of failing experiences. They are behind as soon as they enter the classroom and before long their failures have accumulated to the point where they are apparently hopelessly lost. It is not hard to understand why many such children become antipathetic toward the school. If the school defeats and humiliates them - if it denies their efforts to develop some positive self-regard - they retaliate by becoming "discipline problems" or by withdrawing. The child's initial classroom failures lead to implicit expectations that he will continue to learn slowly and incompletely, if at all. Soon the child comes to share the school's expectations that he will fail, thereby contributing to a self-fulfilling prophecy. Since the life of the school is irrelevant to

the child, he stops caring and not long after stops coming.

Throughout the nation there are too many children who occupy seats in classrooms, but do not allow themselves to participate in the potentially exciting life of the school. But in Appalachia, with its generally poor educational facilities, they are probably especially numerous. There is,moreover,too little in Appalachian community life to sustain hopeful, optimistic educational aspirations even among children who are relatively successful in their school work.

This is obviously a problem which admits of no simple solution. One possible approach is to encourage experimentally-controlled, warm, quasi-therapeutic relationships between teachers and pupils and to evaluate the effects of such relationships upon the pupils' classroom adjustment. It is a common observation that a child is most likely to respond favorably to society's efforts to help him when these efforts are mediated by adults who communicate their positive regard for and sincere interest in the child. One thinks immediately of the one-to-one counseling relationship, but football coaches and boy scout leaders, at their best, also employ such a mode of relating to youngsters. Teachers, too, frequently work closely with particular pupils in a helping relationship, but the effectiveness of such relationships has rarely been the subject of careful, systematic study. Essentially the purpose of the proposed project is to encourage this relationship between teacher and pupil under varied conditions, and to establish the circumstances in which it is relatively effective.

Objectives

1. To demonstrate the effectiveness of the one-to-one,

helping relationship, between teacher and pupil, in raising educational aspirations and achievements among school children in several schools within Appalachia.

2. To determine those practices and conditions which contribute most effectively to the teacher-pupil helping relationship as a basis for more widespread dissemination of the procedure in the Appalachian region.

3. To explore the conditions which promote the establishment of more effective patterns of teacher-pupil relations in the schools of Appalachia.

Procedures

Operational centers for conducting this study will be established in four geographic settings, as follows:

1. The Ohio Valley
2. Southern West Virginia
3. Eastern Tennessee
4. Central Pennsylvania

Each of the centers will conduct essentially the same study in a different part of the Appalachian region thus providing geographic replications of the same basic design. In each setting, forty teacher participants will be identified. Each teacher will work with one child in his (her) classroom, establishing a one-to-one, helping relationship during the course of the school year. The children with whom the teachers work will be designated experimental subjects; corresponding to each experimental child there will be two control children. One control child will be identified in the participating teacher's classroom, while the

other control child will be selected from the classroom of another comparable teacher who is not participating in the study.

Four variations in the basic one-to-one, helping relationship will be defined for experimental study. These controlled factors will involve variations in the pupils chosen for study and variations in the extent to which the teacher can control the relationship. Thus, at each center where the project is being carried out there will be 10 teachers working in each of the four defined patterns of teacher-pupil relationship. Each teacher participating in the study will be assisted by members of the project staff in establishing an appropriate relationship.

All of the children in the study will be in either the fifth or sixth grade. These two grades were chosen for several reasons, including the following:

1. the cumulative damaging effects of poor academic achievement are most likely to be evident by the time the child has been in school for about five years,

2. once the child has left the elementary school it is more difficult for a classroom teacher to establish the relationship being studied.

Comprehensive assessment procedures will be employed to evaluate the effectiveness of the treatments. Each of the 480 children participating in the study (160 experimental subjects and 320 controls) will be tested at the beginning and end of the school year. Testing devices will include standardized inventories as well as specially devised questionnaires and inventories. Comparisons between experimental and control subjects will establish the extent to which the helping relationship is effective. Comparisons between students in the various

experimental treatments will indicate some of the conditions which facilitate and limit the effectiveness of the relationship. Comparisons between the four centers carrying out the project will reveal salient sub-regional variations in the pattern of results, if any.

Teachers participating in the study will also be studied to determine the teacher characteristics associated with success in the helping relationship. Teachers will be encouraged to keep behavior logs during the year describing the manner in which they work out the relationship with the experimental child. These logs will be analyzed to establish those behaviors which appear most effective. In general the analysis of the data will be designed to establish the conditions under which the one-to-one, helping relationship is most effective.

The following timetable will be followed in carrying out the project:

1. June 1, 1966 - September 15, 1966: identification of participating teachers and pupils; arranging administrative conditions for putting the project into operation; refining the definitions of the experimental treatments.

2. September 16, 1966 - May 31, 1967: operational phase of the project, including the collection of test, anecdotal, and behavioral data.

3. June 1, 1967 - August 31, 1967: analysis of data; planning of modifications and extensions of the basic study.

Outcomes

This project is an attempt to ascertain if and how teachers can more effectively make contact with children who are alienated from the life of the school. Such children are characterized by poor academic

achievement and low levels of aspirations; often they see themselves as inadequate failures and resent the school for casting them in this role. Wherever they are found these children are problems - to themselves as well as their teachers. If successful, this project will establish effective and feasible human relations procedures and materials which teachers may use to intervene and thereby help the child.

Bridging the Gap from School to Work

This project is a carefully structured field trial and replication of a high school counseling and placement program first carried out on a pilot basis in Wood County, West Virginia, under the auspices of a grant from the Carnegie Corporation. To replicate the findings, three high schools, one each in West Virginia, Tennessee, and Pennsylvania, will set up special student-parent summer counseling programs followed by the establishment of year-around job placement offices. Criteria for evaluating the worth of this program include: (1) per cent increase in post-high school education, (2) reduction in number of weeks of unemployment, and similar criteria.

Rationale

Given the broadest definition of the school's usefulness to society, it is imperative that the school be organized to assist young people in preparing for the world of work while maintaining contact with its graduates to insure effective career development. Many of the secondary schools of Appalachia, indeed throughout the nation, have concentrated their guidance and placement services on the needs of the college-bound. As the nation's high schools succeed in reducing the number of "dropouts" and "pushouts" prior to graduation, it follows that higher and higher proportions of young adults will require specialized guidance and counseling services in order to locate jobs which are appropriate for their talents, interests, and training. True, increasing numbers are finding it possible to attend and profit from a college experience; however, the job-bound deserve the same high quality of service as those going into post-high school training. Youth unemployment runs as high as twelve to fifteen per cent, while the rate for Negro youth is at least twice as high as the national rate.

In today's market, there is less and less opportunity for the unskilled laborer and the unskilled adolescent. The more than one million unemployed youth under the age of 24 represent not only an unused and wasted resource but a potential threat to society.

Bridging the Gap from School to Work.

Every high school can make an impression on the problem by marshaling its resources to provide a job counseling and placement service and by bringing to bear the mutual concern of the parent and the school on the student's career. In a Carnegie Foundation pilot project in Wood County (Parkersburg), West Virginia, Mandich (1966)[1] found that the number of high school graduates engaging in some form of post-high school educational activity increased from 39.1 per cent in 1964 to 50.4 per cent in 1965 as a consequence of a summer counseling and placement program.

Objectives

(1) To study the impact of a nine-week summer counseling program on the career plans of senior high school students (grades 10, 11, 12) in three different high schools.

(2) To develop essential field tested materials for optimum vocational and educational counseling effectiveness.

(3) To demonstrate to secondary schools throughout Appalachia that a job placement service can effect a reduction in unemployment and can change the attitudes of young adults.

Procedures

It is proposed to establish a nine-week summer counseling program, beginning July 1, 1966, in three carefully selected school systems in Appalachia (Knox County, Tennessee, Wood County, West

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1 Mandich, Sam. "Report Placement Service, Wood County Public Schools, Parkersburg, West Virginia," 25 p. (mimeo) January, 1966.

Virginia, and Northern Bedford District, Pennsylvania). The program is designed for all senior high school students (and their parents). The first week of the summer program will be devoted to a special intensive training sequence designed for school counselors and school psychologists. Beginning with the second week, counseling sessions between student, counselor, and parent of about a one-hour duration will be scheduled. The session will be focused on a discussion of the student's academic progress, aspirations, job opportunities, and interests. Appropriate follow-up activities will be conducted through the placement service. A lay advisory board will be assembled in each location to make recommendations regarding needs and procedures for helping youth.

A corollary to the special summer counseling service is the establishment of a year-round placement bureau for every youth in the area between the ages of sixteen and twenty-one. The placement bureau will serve in-school students, dropouts, and graduates making appropriate placements into full-time jobs, part-time jobs, or into the regular school program. A complete set of credentials will be prepared for each student. Credentials will include a written recommendation from at least one teacher, a recommendation from a previous employer (if any), a statement from a school official listing achievements in leadership and citizenship, a statement of work habits, and a complete record of courses and completed school activities.

Data will be gathered to compare the attitudes toward the school on the part of former students and participants in the special program. An evaluation will be made in each field situation of the change in the school's holding power and its ability to re-attract former students who dropped out. Other relevant data for program evaluation include number

of weeks of unemployment, earning power, employer ratings, and job persistence.

This program is scheduled for an initial trial of two years, beginning July 1, 1966, and subject to expansion to other high dropout areas in Appalachia, pending a careful scrutiny of its effectiveness. Substantial effort will be devoted to "product development" activities during the period.

Outcomes

An anticipated major outcome of this study is a persuasive demonstration to the high schools of Appalachia that they can do something about the early school leaving of their students and about the unemployment which is destroying the hope and happiness of their former students. If the first year's results are as dramatic as those found in the pilot study in Wood County, West Virginia, then a demonstration film will be made for region-wide distribution under Laboratory auspices to school boards and administrators.

An Arts and Humanities Program for Appalachian Youth

Most elementary and high school students in the Appalachia region do not have access to significant music, art, and theatre. Comparatively few schools provide formal instruction in these areas -- and very often the small amount of experience which is offered (participation in a senior play, for example) is led by poorly qualified teachers. The need for sound and creative school programs to develop artistic awareness and talent in the school children of Appalachia is, therefore, quite clear. What has not been resolved is how best to meet this need. This project will examine two promising approaches in depth to determine their relative effectiveness.

Rationale

Outstanding school programs in the areas of music, art, and theatre are unfortunately uncommon in Appalachia. West Virginia may serve as a case in point. The state contains 55 counties, but only 18 employ music supervisors of one type and only four employ art supervisors, according to recent figures from the West Virginia State Department of Education. The classroom teacher, not trained in these disciplines, is unable to provide an appropriate program. This situation is particularly acute in the elementary schools of the more rural areas.

The reasons for the lack of significant programs in the arts and humanities are obvious. For one thing, Appalachia is largely rural, and children outside the metropolitan areas do not enjoy, as a rule, the cultural activities such as symphony orchestras, theatrical productions, and art museums which are found in the cities. Even where these may be fairly accessible, the necessity for transportation and even a small entrance fee may pose seemingly unsurmountable obstacles.

Many school districts in the Appalachia region are poor as well as isolated, and consequently are unable or unwilling to invest in substantial programs in the arts and humanities. Many school superintendents, school board members, and hard-pressed taxpayers, view programs in art, music and theatre as expensive frills which could be supported only at the expense of more "practical" courses in home economics or woodworking.

Since in a great number of rural schools, even such vocationally-oriented courses are lacking because of ignorance or poverty, it is hardly surprising that classes in art, music, and theatre do not flourish.

Finally, even the native tradition in arts and crafts has declined radically. The picture of the isolated Appalachia community, in which the inherently noble inhabitants weave, carve, or otherwise fashion authentic folk-art, is a romantic illusion. Legitimate crafts are now chiefly restricted to the colleges and the shops of a relatively few professionals. Cheap mass-produced imitations (many made in factories outside the Appalachia region) are typically sold to tourists who are interested in gaudy local "souvenirs."

The results of this wide-spread cultural deprivation are clear and lamentable. Far too many Appalachian children never learn the deep pleasure and solid wisdom offered by great art, music, theatre. Their tastes never rise higher than a fondness for commercial hill-billy music, TV horse operas, and calendar "art." Clearly, their education is incomplete. They are caught in a cycle of ignorance about the arts and are unaware of the enrichment and rewards art can bring to their lives. Never having been exposed to the arts in any meaningful way, they usually lack the desire or even the conscious need for such experiences. In essence, a vital element of their lives is denied to them.

Objectives

The proposed program is designed to establish the effectiveness of procedures for reducing the cultural and artistic deprivation of elementary and secondary school students in the Appalachia area. More specifically, the intent is to:

(1) Saturate certain culturally-isolated schools or groups

of schools in Appalachia with instruction in the arts and humanities in an effort to establish local, on-going programs in these fields.

(2) Evaluate the effectiveness of summer workshops and other procedures in identifying students with high artistic potential and teachers with the capacity to conduct worthwhile school programs in the arts.

(3) Foster through demonstration and dissemination activities an understanding, appreciation, and participation in arts and crafts programs of genuine educational value in the schools of Appalachia.

Procedures

The arts and humanities program during the first year of the Laboratory's existence will consist of two projects.

A. "Lighthouse" schools. Six colleges or universities in the region will each "adopt" one school or closely-related group of schools for intensive, sustained programs in the arts and humanities during the school year 1966-67. These "pilot" or "lighthouse" schools would be chosen according to the following criteria: location in non-metropolitan, culturally-deprived areas; lack of adequate instruction in the arts and humanities; manifest desire of the school officials to enrich their curricula in these areas.

Very simply stated, the adopting colleges or universities will help these schools to establish instructional programs in the arts and humanities. Exact arrangements will be worked out jointly and individually by the schools and the cooperating colleges; generally, however, the project directors and their assistants will be expected to do any or all of

the following:

1. Visit the schools regularly, possibly during school hours or on Saturday mornings, to conduct informal classes and/or assembly programs in music, theatre, art, and related activities.

2. Train teachers to direct performances such as plays or concerts for school assemblies or public presentations to local audiences.

3. Bring to the schools demonstration performances and assembly programs from the campuses of the sponsoring institutions.

4. Help the schools arrange out-of-town field trips to museums, concerts, dramatic performances, and the like.

5. Attempt to interest local citizens in participating in the instructional programs and in supporting the performances of the school children.

A pilot project of this nature is now being conducted during school hours at Shade, Ohio, a small all-grades rural school some fifteen miles from Athens. The program, sponsored by the Athens Community Arts Council and drawing heavily on the resources of Ohio University, has included many of the activities enumerated above. Teachers have reported new interest by the students in their school work, new ideas, and greatly increased spontaneity and enthusiasm after only a few months. In turn students and teachers have requested more activity with their children.

It is hoped that the same effect will result from the proposed "lighthouse" projects. Colleges and universities in the Appalachian region will be invited to participate in the "lighthouse" program by submitting detailed plans for a one-year "adoption" program of a school within reasonable commuting distance. As the attached budget shows, funds will be provided for a project director at each college or university, student assistants, supplies, and field trips for the school children.

B. Summer workshops. Three workshops, four weeks in duration and enrolling 25 students each, are proposed for the summer of 1967 at three colleges or universities in the area. One workshop will be in art, one in music, and one in theatre. Attending will be sophomores, juniors, and seniors from high schools in the Appalachia area. Six such centers are envisioned for the following summer if the program is successful.

These workshops will be unique in that they will not be designed for students who have developed considerable talent under the guidance of experienced teachers in prosperous school districts or who have studied privately. Attending will be students who have demonstrated potential talent but who have been hindered from developing their talents by inadequate facilities or unqualified teachers. They will be identified by staff members or students from the sponsoring institutions during the school year prior to the workshops. Primarily, the students will be drawn from isolated, culturally-deprived areas.

The operation of the workshops will be largely the responsibility of the colleges or universities on whose campuses they will be held. However, it is expected that the students will receive highly concentrated instruction in art, music, and drama under the guidance of the local project directors. The purpose will be to discover what progress talented students with limited training can make in such instructional programs. It is expected that the workshop staff will include, in addition to college personnel, young high school teachers of art, music and dramatics.

Again, the advantages of this project should be several. In addition to the high-quality professional training which they will receive, many students will profit socially and intellectually from four weeks on a

college campus, and some may be encouraged to further their education after completing high school.

Both of the projects described above will be evaluated by members of the Laboratory staff. Although outcomes of programs in the arts are admittedly difficult to specify, there are some clues to the impact and effectiveness of the proposed projects which can be evaluated. These include such discernible signs as the person's self-confidence and poise, his emotional adjustment, his attitudes toward school, his awareness of the environment in which he lives, his interest in the world outside his immediate area, his educational aspirations and expectations, and his acceptance of his own abilities and limitations.

Since the two projects described involve direct participation in arts activities, the chief criterion of effectiveness will be the change brought about in individuals. This might be evaluated by interviewers, questionnaires, and specially developed assessment devices.

Outcomes

In Appalachia, as in most of the United States, the schools have generally failed to acquaint their pupils with the values inherent in programs in the arts. We do not yet know the best ways of correcting this deficiency, especially in Appalachia, where even the introduction of massive federal funds is insufficient to permit the creation of an adequate instructional program in each school that requires it. Laboratory sponsored projects can, therefore, fill a critical need. By demonstrating and disseminating findings on the most effective methods of providing quality programs in music, art, and drama, the Laboratory can lead the way in suggesting the role of the arts in alleviating cultural and artistic deprivation.

Clinical Study of Barriers to Educational Change

This project is designed to provide an integrated set of sociologically oriented case studies of the process of educational change in nine Appalachia school systems. Six separate two-man teams, three change implementation teams and three change evaluation teams, will attempt to introduce and evaluate the adoption of a new mathematics curriculum in three sets of three Appalchia schools. The change implementation teams will provide the catalytic power for introducing modern mathematics in school systems that say they want to modernize their curriculum. The change evaluation teams will operate independently of the implementation teams to produce coherent case studies of the change process. This project is expected to operate over a two-year period, beginning July 1, 1966.

Rationale

Although interest in the process of change is not new, contemporary interest is at an all-time high and going up. Why is this true? What circumstances and factors may well elevate this concern into the select circle of major national issues and problems?

In essence, the heightened professional concern is the result of the increasing gap between "what we know" about good educational theory and practice and "what is happening" in our schools. The gap has always existed and no one is suggesting that it can be eliminated; but educators are becoming increasingly restive about the width of the gap, and the tempo of search for ways of decreasing it is picking up appreciably.

The "explosion of knowledge" is a significant influence in the contemporary interest in change. The information revolution has brought forth an avalanche of national curriculum studies. More recently, large-scale studies have given some consideration to how their reports could be implemented to strategies of change. In this respect, knowledge about the process of change has been moved forward.

The increasing complexity of decision-making has forced educators to give more attention to processes. The role of specialization

also enters the picture. Specialized knowledge means that teamwork and cooperation are the hallmarks of large studies whether they are conducted in industry or in education. With increasing complexity and specialization comes the realization that the ways (processes) of working together are themselves vital links in successful innovation.

These evidences of positive national interest and concern are loosening the plaster of antiquated programs and practices, and they are providing a readiness for educational change that is probably unparalleled in our national history.

The literature on change is expanding rapidly, and one can expect this growth to continue in geometrical rather than arithmetical proportions. More systematic and specific studies are needed of how new ideas and programs are planned, started, and implemented: What forces and factors contributed to or discouraged progress? What were the critical points along the way? What initial ideas needed modification? How did decision-making take place, and who made what decisions? And how was the approved program put into action? These types of questions need to be dealt with rigorously by those who are involved first hand in the process of change. Fortunately, more literature in the process of change is taking this analytical bent.

Objectives

The following objectives have been established for this project:

(1) To develop new understandings of the nature of the change process as it relates to the improvement of instruction.

(2) To gain insight concerning the causes, symptoms,

diagnosis, and, hopefully, cures for chronic problems usually associated with educational change.

Procedure

In this project, educational change in the form of the adoption of modern mathematics in the elementary school curriculum will be attempted in nine public schools in three states. The University of Kentucky, the University of Tennessee and Marshall University (West Virginia) will each organize two two-man teams. One team from each university will be a Change Implementation group and the other team will be a Change Evaluation group. Under the direction of a project coordinator, the two teams from each university will select from interested schools in their region three that meet established criteria of need for, and apparent willingness to incorporate, the new mathematics into an existing elementary school curriculum.

Over a two-year period, the Change Implementation team would assist the school administration to make the necessary moves to insure the adoption of the sought-for change. The Change Evaluation team, working independently, would record and analyze the experience of their colleagues who were trying to "catalyze" the change. The evaluation team would conduct interviews, construct questionnaires, attend school board and P.T.A. meetings and engage in other activities needed in order to describe clinically and evaluate the change process. By working in three different school environments all focused on the same type of innovation, each set of two teams would be able to generalize to some extent about the obstacles to sound change and the identification of resources which help the change process.

Outcomes

The principal outcome of this two-year effort would be a set

Clinical Study of Barriers

of nine carefully integrated case studies of the attempt to introduce modern mathematics into the public elementary school. Like case studies of medical or psychiatric or sociological pathology, these analyses of the barriers and resources for educational change should lead to new insights and new ways to accelerate the process of change.

Section III

ORGANIZATION AND ADMINISTRATION

The Appalachia Educational Laboratory, Incorporated, is a nonprofit corporation incorporated under the laws of the State of West Virginia (See Agreement of Incorporation, Appendix A). The membership of the Laboratory includes representatives or organizations, enterprises, and institutions that conduct educational or educationally related activities in the region served by the Laboratory, commit themselves in writing to support the objectives of the Laboratory, and send representatives to such general meetings of the membership as may be called by the Board of Directors. In short, the membership of the Laboratory will include representatives from school sytems, colleges, universities, state departments of education, businesses, labor, industry, professional and cultural groups, and other appropriate groups.

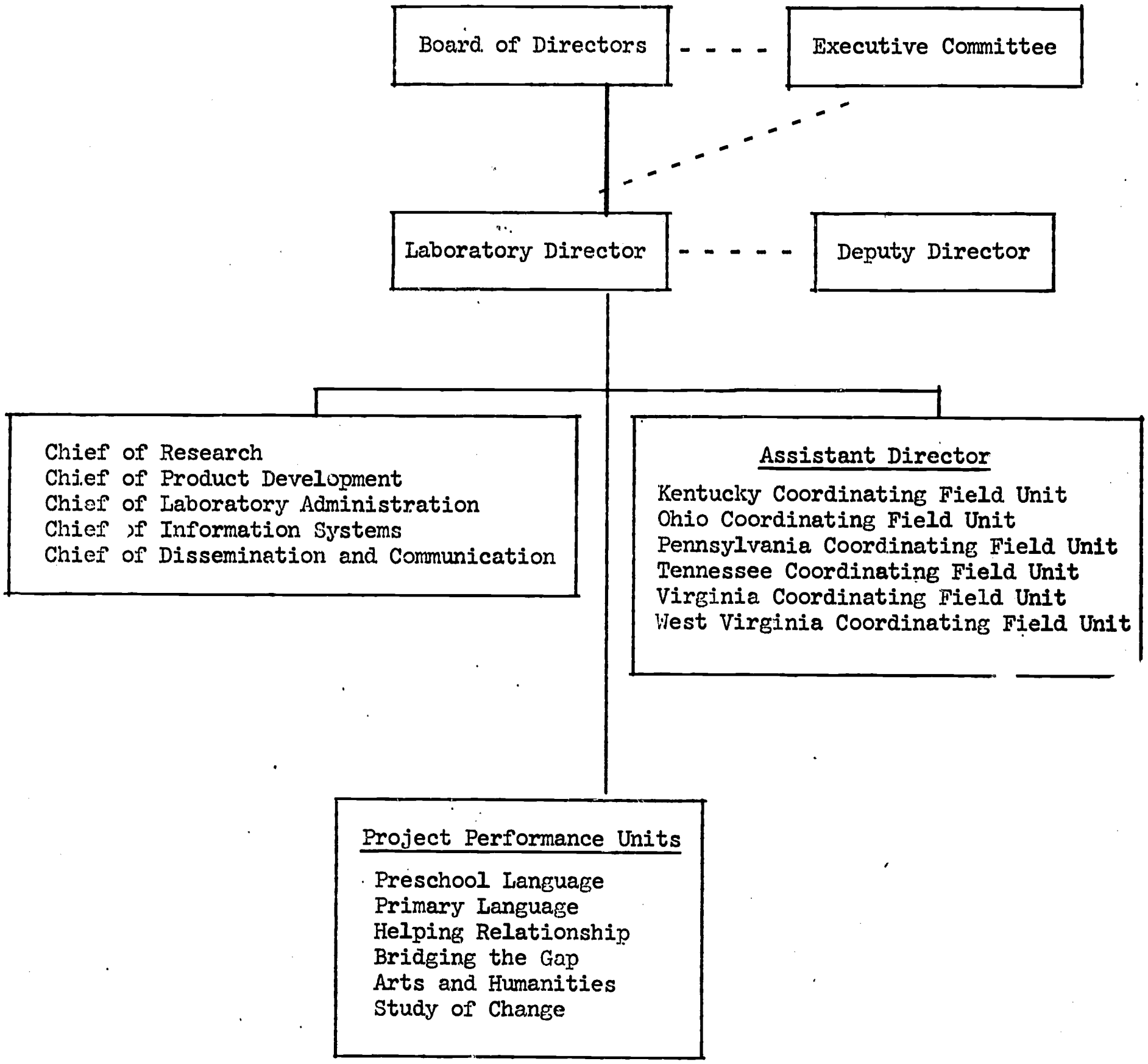
The Board of Directors of the Laboratory will be broadly representative of the region and the educational structure within the region. Included on the Board will be:

1. The chief state school officer or his designated representative from each of the States of Kentucky, Ohio, Pennsylvania, Tennessee, Virginia, and West Virginia;

2. The designated representative of the superintendent's association in each of the States listed above;

3. The president or his representative from each of the following doctoral degree granting universities: University of Kentucky, Ohio University, The Pennsylvania State University, The University of Tennessee and West Virginia University;

4. The designated rpresentative of the collegiate institutions within a state or part of a state served by the Laboratory not included in (3) above, but offering state-accredited preservice teacher education programs;



Organization Structure

Appalachia Educational Laboratory, Inc.

5. Nine representatives to be selected from organizations, enterprises, and institutions not represented in categories (a), (b), (c), or (d) above.

The organizational structure of the Laboratory is shown in greater detail in Figure 1. The 32 member Board of Directors will meet at least twice a year. The Board will appoint an Executive Committee composed of five members of the Board to meet as required and to act in accord with the guidelines and directions set forth by the Board (See Bylaws, Appendix B).

The Laboratory will be headed by a Director. Reporting to the Director will be a Deputy Director, and five department chiefs: a Chief of Research, a Chief of Product Development, a Chief of Dissemination and Communication, a Chief of Information System, and a Chief of Laboratory Administration. Reporting to the Director of the Laboratory, or the Deputy Director, will be six assistant directors, each heading a Coordinati Field Unit in each of the six states to be served by the Laboratory.

The Director of the Laboratory, the Deputy Director, and the five department heads will comprise the core of the Laboratory's central staff. This staff, working with the six assistant directors located in the Coordinating Field Units, and through the various research, development, and dissemination projects established by the Laboratory, will provide the forward planning and coordination essential to the accomplishment of Laboratory objectives.

Field Units

The program of the Appalachia Educational Laboratory is carried out, in the main, through a network of interrelated field units. These field units will be established at the discretion of the Board of Directors. Field units will vary in mission, form, size, scope of work, and duration in accord with the Laboratory program requirements. The function of the

field units, however, may be placed into two general categories:

(a) Coordinating Field Units, and

(b) Program Performance Field Units.

Coordinating Field Units

The purpose of the Coordinating Field Unit is to provide for continuing laboratory contact and coordination throughout the entire region. Each Coordinating Field Unit will be headed by an Assistant Director of the Laboratory, who will be responsible to the Director of the Laboratory and in turn to the Board of Directors. The Coordinating Field Unit will provide a tangible and effective link between the Laboratory's central office and every school system, state department, college, university, and related educational agency within the region. It will provide effective coordination between and among field units. It will also provide the means for the various local agencies within the region to participate in a meaningful manner in framing and implementing Laboratory programs. Moreover, it will increase the Laboratory's capability for innovation and creativity and make it more responsive to need differences throughout the region.

In a very real sense, it is the primary mechanism for Laboratory continuity and stability at the local level. The function of the Coordinating Field Unit, therefore, is to implement the concept of the Appalachia Educational Laboratory as a decentralized enterprise. It is, in effect, the branch office of the Laboratory and will, therefore, be administratively responsible to the Laboratory's central office and the Board of Directors.

The location of the coordinating field units will be determined finally by the Board of Directors after careful consideration of the following factors:

A. feasibility of location considering the geography of the part of the total area to be served,

B. the availability of facilities and resources in a location,

C. ease of communication with and coordination of the educational agencies in the sub-region,

D. the degree to which the area will be attractive to potential employees.

Pursuant to consideration of these criteria, the tentative decision is to locate six field stations at Lexington, Kentucky; Morgantown, West Virginia; Athens, Ohio; University Park, Pennsylvania; Knoxville, Tennessee; and Radford, Virginia.

Program Performance Field Units

The Program Performance Field Unit differs from the Coordinating Field Unit in that it provides the primary focal point for the performance of various projects of the Laboratory. For each significant research, development, and dissemination program, there must be at some single point a critical mass of talented personnel committed to the task of the Laboratory and capable of providing program leadership for a given Laboratory project. There must also be a focal point for assignment of responsibility for the various projects carried out by the Laboratory.

The Program Performance Field Unit, in addition to meeting these demands, also draws regionally on such talent as may be available striving deliberately to involve others from throughout the region whenever possible. Thus while the Program Performance Field Unit identifies and focuses task performance responsibility, and establishes the necessary critical mass essential for the performance of the task, it also carries forward the program with the total region in view, involving others from throughout the region whenever possible. Because the program will change and evolve, many Program Performance Field Units will be operated on a contract basis in cooperation with existing educational institutions and agencies.

While the Assistant Director in charge of the Coordinating Field Unit will report directly to the Laboratory Director, the Laboratory Director may request that the head of the Program Performance Field Unit report to him through the Assistant Director in charge of the Coordinating Field Unit in the local area. It is through such relationships that the Laboratory Director and his staff carry through the program of the Laboratory in a coordinated fashion and yet maintain continuing close contact with the Laboratory membership.

How might the Laboratory program operate within such a framework? Take for the moment the possibility of a program aimed at the problem of preschool development of disadvantaged children. First let us assume for the moment that the Board of Directors of the Laboratory has approved certain general directions for Laboratory activity in the preschool area.

Having outlined the general nature of the task to be performed, the Board might then consider some appropriate source within the region, perhaps a school system, a state department, or a college or university, or some other agency to assume primary project performance responsibility for the preschool project. Ohio University, for example, might agree to accept primary project performance responsibility for the preschool project. Ohio University would then proceed to release, employ, or otherwise secure appropriate manpower and other supporting resources for the establishment of a project performance field unit on or adjacent to the Ohio University campus. Appropriate space, for example, might be rented for the project. As possible and appropriate, the services of child development personnel from state departments of education, public school personnel, college and university personnel from the various states, a publisher and others might be obtained in designing and implementing the program.

As the project moved through the developmental stages, it would become appropriate to have certain field test situations for the demonstration and evaluation of the program and related materials. The project director, working through the Laboratory Director, and Coordinating Field Units, would seek the cooperation of school systems, communities, and other agencies essential for the field test, demonstration, evaluation, and ultimate implementation of the products and materials developed. It is through such cooperation that membership in the Laboratory begins to take on meaning and utility.

Additional illustrations might be developed to show the capacity of the Coordinating Field Unit to serve as a dissemination agency, or to be helpful in the collection of data or to allow for local participation in the framing of Laboratory programs. Also, illustrations might be developed showing the Project Performance Field Unit located in a school system or in a state department of education. The basic operational principles would remain much the same.

Section IV

Budget

Following is a budget summary for the first year of Laboratory operation.

Consolidated Budget
Appalachia Educational Laboratory
June 1, 1966 to June 30, 1967

Function	Personnel Professional	Personnel Supporting	Supplies, Materials Travel, Communication	Space, Equipment Indirect Costs Other	Total
I. Program Organization and Administration					
Central Laboratory Office	200,000	60,000	50,000	30,000	340,000
Educational Information System: Need assessment, program evaluation, Central Office	12,000	56,650	131,208	260,000	459,858
Coordinating Field Units 2 for 12 mo, 2 for 9 mo, and 2 for 6 mo.	243,000	198,000	54,000	67,500	562,500
Sub-total	455,000	314,650	235,208	357,500	1,362,358
II. Program Implementation					
Preschool program	105,000	35,000	38,000	30,000	208,000
Language Instruction	70,000	12,000	20,000	27,000	129,000
Educational Aspirations	60,000	19,000	16,000	20,000	115,000
School to Work	80,000	21,000	15,000	21,500	137,500
Arts and Humanities	57,000	20,000	25,000	20,000	122,000
Educational Change	75,000	8,000	9,700	20,500	113,200
Sub-total	447,000	115,000	123,700	139,000	824,700
III. Program Development	130,000	30,000	40,000	10,000	210,000
TOTAL	1,032,000	459,650	398,908	506,500	2,397,058

Appendix A

STATE OF WEST VIRGINIA

[Official Seal of the State of West Virginia]

CERTIFICATE OF CORPORATION

I, Robert D. Bailey, Secretary of State of the State of West Virginia hereby certify that an Agreement, duly acknowledged, has been this day filed in my office, which agreement is in words and figures following:

AGREEMENT OF INCORPORATION
(See Arts. 2-9, both incl., of c. 31, also c. 33. Code for provisions regarding certin corporations)

I. The undersigned agree to become a corporation by the name of (1)

APPALACHIA EDUCATIONAL LABORATORY, INC.

(1) The name of the corporation shall contain one of the words "association," "company," "corporation," "club," "incorporated," "society," "union," or "syndicate," or one of the abbreviations, "co." or "inc."; but no name shall be assumed already in use by another existing corporation of this State, or by a foreign corporation lawfully doing business in this State, or so similar thereto, in the opinion of the Secretary of State, as to lead to confusion.

II. The principal Office or Place of Business of said Corporation will be located at (1) The State Department of Education in the city (2) of Charleston, Capitol Building in the county of Kanawha and State of West Virginia. Its chief works will be located (3) in It will have no chief works.

(1) Insert number and name of street, if in a city having street numbers, if not, strike out.
(2) Erase the word "city," "town," or "village," leaving the one required.
(3) Give location of chief works; if at the same place as principal office or place of business say "Its chief works will be located at the same place." If there be no chief works, say "Said corporation will have no chief works." If chief works are in West Virginia, give name of magisterial district and county in which they are or will be located. In case of oil well, gas well, or prospecting companies, and other like companies, where the chief works will be shifting, and in cases of companies that will have chief works, or works at different points in this State, say "chief works will be located in _____ district, in _____ county, State of West Virginia and elsewhere in said State." If chief works are not to be in West Virginia, then it is only necessary to give the name of the State or county in which they will be located.

III. The objects for which this Corporation is formed are as follows:

(Please type double space. If not sufficient room here to cover this point add one or more sheets of paper of this size.)

To assist the schools in West Virginia and parts of Kentucky, Ohio, Pennsylvania, Tennessee and Virginia, in improving their educational programs and to further knowledge of the educative process by direct action or by making grants to universities and colleges, school systems and other public or private agencies, institutions, and organizations and to individuals for:

(1) The dissemination of information derived from educational research (including but not limited to information concerning promising educational practices currently being developed).

(2) The conducting of development programs in education (including but not limited to curriculum projects).

(3) The conducting of demonstrations in the field of education (including but not limited to the support of model programs and/or schools).

(4) The conducting of research in the field of education (including both basic and applied research).

(5) The conducting of surveys in the field of education.

(6) The conducting of training in the field of education.

(7) The conducting of other similar educational activities.

To have offices and promote and carry on its objects and purposes within or without the State of West Virginia, and specifically in other states of the United States of America and the District of Columbia.

The foregoing objects and purposes shall be construed both as objects and powers, and it is expressly provided that the foregoing enumeration of specified powers shall not be held to be exclusive or to limit or restrict in any manner the powers of this Corporation; but this Corporation is to have and exercise all rights and powers incidental or convenient to the enjoyment of all the above enumerated or mentioned powers, or now or thereafter provided or allowed by the laws of the State of West Virginia.

IV. The amount of the total authorized capital stock of said corporation shall be None dollars, which shall be divided into _____ shares of the par value of _____ dollars each.

Note: Use space below for statement as to stock without par value, or where more than one class of stock is to be issued, or one or more series within a class, and as to any designation, powers, etc., as provided in subdivision (d), § 6, art. 1, c. 31, Code.

In the case of a corporation not organized for profit and not authorized to issue capital stock, a statement to that effect shall be set forth together with a statement as to the conditions of membership, Code 31-1-6(d).

Said corporation is not organized for profit and shall not have authority to issue capital stock. The condition of membership in said corporation is as follows: Membership can consist of the duly selected representatives of organizations, enterprises and institutions, including schools and school systems, colleges, universities, businesses, industrial firms, professional organizations, cultural groups and other agencies, that (1) conduct education or educationally related activities in the states or parts of states serviced by this corporation, (2) commit themselves in writing to support the objectives of the corporation, and (3) send representatives to such general meetings of the membership as may be called by the board of directors, and (4) comply with the Civil Rights Act of 1964. In addition, all representatives seeking membership after June 30, 1966, shall be approved by the affirmative vote of two-thirds of the members of the board of directors. Meetings of the membership may be held either within or without the State of West Virginia, at such places and times as may be designated in the call for such meeting.

The amount of capital stock with which it will commence business is None Dollars ($_____) being _____ shares _____ Dollars ($_____) each.

V. Name (5) and P. O. Address (6) - Write plainly, typewrite if possible; W. Va. Code 31-1-6 (e) - the full names and addresses, including street and street numbers, if any, and the city, town or village of the incorporators, and if a stock corporation, the number of shares subscribed by each.

Name (5)	Address (6)	No.shares common stock	No.shares preferred stock	Total No. of shares
Stanley O. Ikenberry	699 Bellaire Drive Morgantown, W. Va.			
Howard F. Aldmon	3608 Cherry Log Road Knoxville, Tennessee			
Harold E. Mitzel	928 South Sparks State College, Penna.			
James R. Ogletree	2090 Old Nassau Lexington, Kentucky			
L. K. Lovenstein	1120 Oakmont Road Charleston, W. Va.			

VI. The existence of this corporation is to be perpetual.

VII. For any additional provisions desired and which are authorized by law, see art. 1, c. 31, Code. Also set forth number of acres of land desired to be held in West Virginia, if such number be above 10,000 acres, pursuant to § 75, art. 12, c. 11, Code. If more space is required, add one or more sheets of paper this size.

WE, THE UNDERSIGNED, for the purpose of forming a Corporation under the laws of the State of West Virginia do make and file this Agreement; and we have accordingly hereunto set our respective hands this 19th day of March, 1966.

All the Incorporators must sign below, signatures being the same as shown in Article V.

/s/
Stanley O. Ikenberry

/s/
Howard F. Aldmon

/s/
Harold E. Mitzel

/s/
James R. Ogletree

/s/
L. K. Lovenstein

CERTIFICATES

The agreement must be acknowledged by all the incorporators who signed it, before the president of a county court, a justice of the peace, notary, recorder, prothonotary or clerk of any court, within the United States, etc. and such acknowledgments certified by the officer before whom they were made, and his seal affixed if not in West Virginia. Acknowledgments taken in a foreign country must be certified under the official seal of any ambassador, minister plenipotentiary, minister resident, charge d'affaires, consul general, consul, deputy consul, etc., appointed by the government of the United States to any foreign country, or of the proper officer of any court of record of such country, or of the mayor or other chief magistrate of any city, town or corporation therein, etc.--[Code, c. 39, Art. 1, § 3.]

State of Pennsylvania County of Allegheny, to-wit:

I _____, a Notary Public in and for the County and State aforesaid, hereby certify that

(Names of all incorporators as shown in Article V, and signatures of same must be inserted in this space by official taking acknowledgments). Names and signatures must appear alike.

whose names are signed to the foregoing agreement bearing date on the 19th day of March, 1966 this day personally appeared before me in my said county and severally acknowledged their signatures to the same.

Given under my hand and official seal this 19th day of March, 1966

SEAL

_____
Notary Public

My Commission expires on the 11th day of March, 1968.

WHEREFORE, The corporators named in the said Agreement and who have signed the same, and their successors and assigns, are hereby declared to be from this date a Corporation by the name and for the purposes set forth in the said agreement, with the right of perpetual succession.

[Official seal of the State of West Virginia]

Given under my hand and the Great Seal of the said State, at the City of Charleston, this Twenty-Second day March Nineteen Hundred and Sixty-six.

_____

Secretary of State

Appendix B

BYLAWS

OF THE

APPALACHIA EDUCATIONAL LABORATORY, INC.

ARTICLE I

MEMBERSHIP

Section 1. Membership in the Laboratory shall include duly selected representatives of organizations, enterprises, and institutions that (1) conduct educational or educationally related activities in the states or parts of states serviced by the Laboratory, (2) commit themselves in writing to support the objectives of the Laboratory, (3) send representatives to such general meetings of the membership as may be called by the Board of Directors, and (4) comply with the provisions of the Civil Rights Act of 1964. Said membership shall include schools and school systems, state departments of education, colleges, universities, businesses, industrial firms, labor unions, professional organizations, cultural groups, and other agencies.

Section 2. A representative of a school or school system, state department of education, college, university, business, industrial firm, labor union, professional organization, cultural group, or other agency seeking Laboratory membership shall present to the Board of Directors the Application for Membership completed by a duly authorized official of the organization, enterprise, or institution. Representatives of organizations, enterprises, and institutions meeting the aforestated criteria for membership shall upon submission of the Application for Membership before June 30, 1966, be granted membership in the Laboratory. After June 30, 1966, all Applications for Membership, in addition to meeting the criteria, shall be approved by a two-thirds vote of the Board of Directors.

Section 3. The membership shall be convened annually at a time and place to be set by the Board of Directors.

Section 4. A representative of an organization, enterprise, or institution desirous of withdrawing from membership in the Laboratory shall submit to the Board of Directors a letter indicating said withdrawal. Membership shall be terminated automatically if a representative of an organization, enterprise, or institution fails to attend three consecutive annual meetings as set by the Board of Directors.

ARTICLE II

DIRECTORS AND OFFICERS

Section 1. The affairs of the Laboratory shall be managed by the Board of Directors, which shall have full authority and power granted to boards of directors under the laws of the State of West Virginia.

Section 2. The Board of Directors shall be comprised as follows:

(a) The chief state school officer, or his designated representative, from each of the following states: Kentucky, Ohio, Pennsylvania, Tennessee, Virginia, and West Virginia.

(b) The designated representative of the school superintendents' association of each of the states listed in (a) above.

(c) The president, or his designated representative, of each of the following doctoral degree granting institutions:

The University of Kentucky

Ohio University

The Pennsylvania State University

THe University of Tennessee

The University of West Virginia

(d) The designated representative of the collegiate institutions within a state or part of a state, (a) above served by the Laboratory, not included in (c) above offering state accredited preserivce teacher education programs.

(e) Nine representatives to be selected from organizations, enterprises, and institutions not represented in categories (a), (b), (c), or (d) above.

Section 3. The Board of Directors shall be selected as follows:

(a) The chief state school officer shall notify in writing the Laboratory of his intent to serve on the Board of Directors. Chief state school officers designating persons other than themselves for membership on the Board shall specify the name of the person and the person's position. Only under extenuating circumstances shall designees of chief state school officers be appointed for terms of less than one year.

(b) The representative of each state's school superintendents' association shall be named by the association for a term of office of three years. The name and address of said representative shall be forwarded to the Laboratory by the president of the state's superintendents' assocation.

(c) The President of each doctoral degree granting graduate training institution (Article II, Section 2) shall notify in writing the Laboratory of his intent to serve on the Board of Directors. Presidents designating persons other than themselves for membership on the Board shall specify the name of the person and the person's position. Only under extenuating circumstances shall designees of presidents of the graduate training institutions be appointed for terms of less than one year.

(d) The chief state school officer of each state or part of a

state serviced by the Laboratory shall cause to have elected from among collegiate institutions offering state-accredited teacher education programs, within said state or part of a state, a person to serve as a member of the Board of Directors. Said member shall have a term of office of three years. The chief state school officer shall specify in writing to the Laboratory the name and position of the representative of collegiate institutions in his state or part of his state.

(e) The members of the Board of Directors in the first four categories--(a), (b), (c), and (d)--shall elect from other categories of membership nine members to the Board of Directors. The following criteria shall guide the Board in electing the nine members:

(1) the nine members shall reside in the states or portions of states serviced by the Laboratory;

(2) consideration shall be given to representatives from each of the six states;

(3) considerations shall be given to an elementary school teacher and a secondary school teacher; and

(4) said board members shall be associated with organizations, enterprises, or institutions represented in the membership of the Laboratory.

Said nine board members shall be elected to staggered terms of three years; initially three shall be elected for a term of office of one year, three for a term of two years, and three for a term of three years. The Board of Directors shall report to the membership the composition of the Board, including names and addresses of board members.

Section 4. Officers of the Board shall be a chairman, vice chairman, and secretary. These officers shall be elected by the Board from among its membership. Terms of office and duties shall be established by the Board.

Section 5. The following persons shall serve as members of the Board of Directors until May 16, 1966, at which time the regularly constituted Board shall take office:

Dr. Lyman Ginger- Vice Chairman of Board of Directors
Dean College of Education
The University of Kentucky
Lexington, Kentucky

Dr. Morris Norfleet
Director of Teacher Education
Morehead University
Morehead, Kentucky

Mr. William Shattles
Superintendent
Ashland City Schools
Ashland, Kentucky

Dr. Donald E. Elswick
Director, Division of Education
Kentucky State Department of Education
Frankfort, Kentucky

Dr. Byril R. Shoemaker
Director, Division of Vocational Education
State Department of Education
Columbus, Ohio

Dr. Max Evans
Superintendent
Marietta City Schools
701 Third Street
Marietta, Ohio

Dr. G. Crowell
Dean, College of Education
Ohio University
Athens, Ohio

Dr. Frank Duddy, Jr.
President, Marietta College
Marietta, Ohio

Dr. Harold E. Mitzel
Assistant Dean for Research
277 Chambers Building
The Pennsylvania State University
University Park, Pennsylvania

Dr. Allan S. Hartman
Director, Preschool and Primary Education Project
Department of Public Instruction
Harrisburg, Pennsylvania

Dr. Ben Van Horn
Supervising Principal
Northern Bedford County Schools
Loysburg, Pennsylvania

Dr. Eugene L. Hammer
Chairman, Department of Education
Wilkes College
Wilkes-Barre, Pennsylvania

Dr. Roy Jones
Tennessee Department of Education
140 Cordell Hull Building
Nashville, Tennessee

Dr. E. C. Merrill
Dean, College of Education
The University of Tennessee
Knoxville, Tennessee

Dr. Homer Mincy
Superintendent
Greeneville City Schools
Greeneville, Tennessee

Dr. Scott Honaker
Dean, School of Education
East Tennessee State University
Johnson City, Tennessee

Dr. John Barker
Vice President
Radford College
Radford, Virginia

Dr. Alton L. Taylor
Division of Educational Research
State Department of Education
Richmond, Virginia

Mr. J. Leonard Mauck
Superintendent, Smyth County Schools
Box 639
Marion, Virginia

Dr. Stanley O. Ikenberry - Chairman of the Board of Directors
Dean, College of Human Resources and Education
The University of West Virginia
Morgantown, West Virginia

Dr. Grant Venn
Superintendent
Wood County Schools
Parkersburg, West Virginia

Dr. L. K. Lovenstein - Secretary of the Board of Directors
Federal Aid
West Virginia Department of Education
Charleston, West Virginia

Dr. Robert Hayes
Dean, Teachers College
Marshall University
Huntington, West Virginia

Dr. Marshall Buckalew
President, Morris-Harvey College
Charleston, West Virginia

Section 6. The Board of Directors shall elect from its membership an Executive Committee of five members. Three of the five members shall be the chairman, vice chairman, and secretary as specified in Section 4. Term of office and duties shall be established by the Board.

Section 7. The Board of Directors shall meet at least twice a year. Additional meetings as needed may be called by the chairman of the Board or upon request by a majority of the Board.

Section 8. The Board of Directors shall establish a central office in Charleston, West Virginia, such other branch offices as necessary, and shall employ within the limitations of the budget such staff as is necessary to conduct the business of the Laboratory.

Section 9. The central staff shall be headed by the Director of the Laboratory who shall be employed by the Board of Directors. The Director shall serve as executive officer of the Laboratory.

ARTICLE III

TERM OF EXISTENCE AND DISSOLUTION

The Laboratory shall have existence in perpetuity. In the event the Laboratory ceases to exist in fact, the title to all its property, real, personal, and mixed, including all rights, interests and equities shall be vested equally in the state departments of education in Kentucky, Ohio, Pennsylvania, Tennessee, Virginia, and West Virginia, excepting those rights and entitlements retained by the United States government.

ARTICLE IV

ALTERATION OF BYLAWS

The Bylaws shall operate to carry out the purposes of the Laboratory and to facilitate the operational procedures thereof. A vote of two-thirds of the members of the Board of Directors shall be required to effect any alteration, change, or amendment. The Bylaws or any subsequent changes thereto shall be made known to the membership.

ARTICLE V

GENERAL PROVISIONS

Notwithstanding any provision or provisions of the Articles of Incorporation, Constitution, or Bylaws, which might be susceptible to a contrary construction:

1. The Appalachia Educational Laboratory, Inc.'s purposes and operations shall be exclusively educational and scientific.

2. No part of the net earnings of the Appalachia Educational Laboratory, shall or may, under any circumstances, inure to the benefits of any private shareholder or individual.

3. No substantial part of the activities of the Appalachia Educational Laboratory, Inc. shall consist of carrying on propaganda or

otherwise attempting to influence legislation.

4. The Appalachia Educational Laboratory, Inc. shall not participate in, or intervene in, or publish or distribute statements concerning any political campaign on behalf of any candidate for public office.

5. The assets of the Appalachia Educational Laboratory, Inc. shall be devoted exclusively to scientific and educational purposes. Upon dissolution, the assets of the Appalachia Educational Laboratory, Inc. shall be distributed by the Board of Directors to one or more organizations qualifying under Section 501 (c) (3) or Section 501 (c) (6) of the Internal Revenue Code of 1954.

Appendix C
Statistical Portrait of A Region

The description of West Virginia is intended to portray something about the Appalachian area. West Virginia was selected becuase it is the only state completely within the Appalachian region. It is geographically the "median" state. Economically, it is generally not as advantaged as Ohio and Pennsylvania and not as disadvantaged as the Appalachian areas in Tennessee, Kentucky, and Virginia. Although the following information is descriptive of West Virginia, it describes conditions of the contiguous Appalachian area with few distortions.[1]

West Virginia covers an area of 24,282 square miles. In population according to the 1960 census, West Virginia was the only state to lose population between 1950 and 1960. The loss reduced the state population to 1,860,461, with an estimated 7.2% drop.

The per capita income for West Virginia in 1963 was $1,883 as compared to the national average of $2,449. Of the children under 21 in West Virginia, 9.4% are receiving support from state welfare. A recent educational survey indicated that 21.6% of school age children (ages 5-17) were classified as "disadvantaged". At the other end of the age spectrum, 8.1% of adults over 65 are receiving support from state welfare.

The housing situation in West Virginia is equally serious. More than sixty percent of the residences in West Virginia are rural and considering all homes 56.7% are classified as sound. This places West Virginia 45th in the nation.

In education the lag behind the national norm is striking. The West Virginia citizens over 25 have a median of 8.8 years of education

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[1] Source: 1960 Census and West Virginia Department of Education, Charleston, West Virginia

compared to 10.6 for the nation. Only 5.2 percent have completed at least four years of college compared to 7.7 percent for the nation. In both of these categories West Virginia ranks 48th in the nation. Eleven percent of West Virginians over 25 have less than 5 years schooling compared to 8.3% for the nation. This is reflected in the number of young men rejected by Selective Service. More than sixty percent are rejected which is dramatically above the 15% rate for the nation. Of this number, 30.2% fail the mental test.

The total school enrollment in West Virginia was 447,000 in 1964-65. Between 1955 and 1965 the public school enrollment dropped 2.4% during the decade. There is one teacher for each 24 children and only half of the fifth graders will finish high school.

The schools are understaffed and many teachers do not have adequate educational backgrounds. Special education classes are almost nonexistent and there are still 399 one room schools in West Virginia. Less than two percent of the classrooms receive Educational TV transmissions and in 1964 the state needed 1900 new classrooms.

West Virginia spent $315 per pupil in 1964-65 as compared to a $483 national average which ranks the state 46th and this figure was a sixty-five percent increase over the figure a decade before. The average annual salary of teachers in the state was only $4,750 in 1965 while the national average was $6,449.

Federal expenditures in West Virginia stood at $289.86 per pupil in 1963-64 as compared to the national average of $455.00.

Both the economic and the educational conditions in West Virginia lag far behind the nation and the ironic duplication is that these two are so closely related that it does not seem likely that one will improve unless the other one does. Low wages and low taxes lead to less state expenditure on education and many of the uneducated and under-educated people will

never get better wages with so little schooling.

The tables and charts that follow will provide additional statistical information describing the region served by the Appalachia Educational Laboratory.

TABLE 1

Dropouts and School Completion

	Median years schools completed		At least 4 years college		Holding power *		Less than 5 years schooling	
	Years	State Rank	%	State Rank	%	State Rank	%	State Rank
Kentucky	8.7	49th	4.9	49th	52.6	48th	13.8	41st
Ohio	10.9	23rd	7.0	29th	72.4	26th	5.4	19th
Pennsylvania	10.2	36th	6.4	37th	78.0	13th	6.9	37th
Tennessee	8.8	47th	5.5	47th	55.1	45th	14.7	42nd
Virginia	9.9	38th	8.4	17th	51.9	49th	13.2	39th
West Virginia	8.8	48th	5.2	48th	55.5	44th	11.0	37th
Average for United States	10.6		7.7		70.6		8.3	

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* This information measures dropouts between the 8th and 12th grades. It shows the percentage of 1957-58 eight graders who went on to graduate in 1962.

Source: November 1964, "Changing Times," The Kiplinger Magazine.

TABLE 2

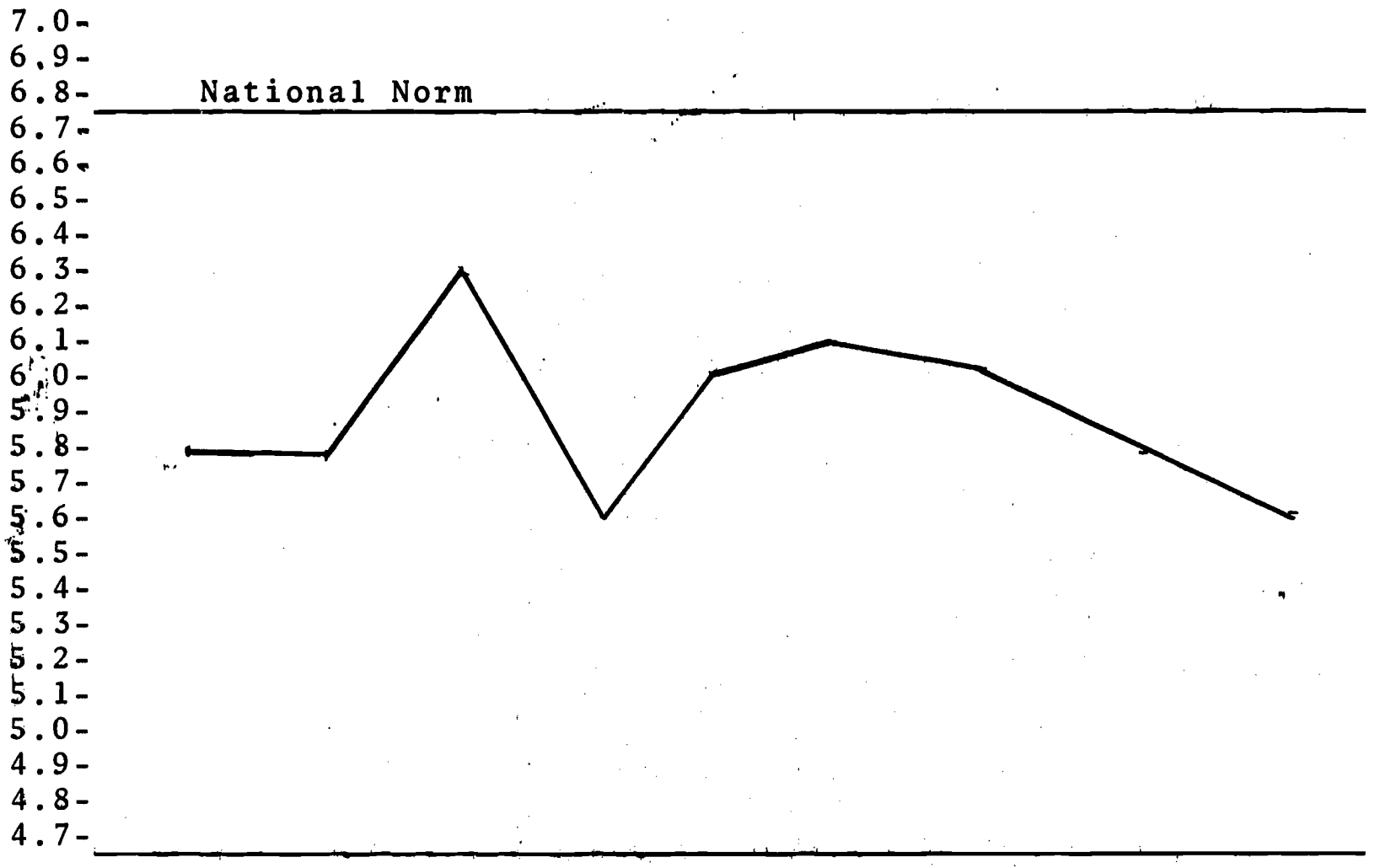
Comparison of Selective Service Rejectees, Per pupil Expenditures and School Revenues for Appalachian States and Entire United States

	selective service registrants failing mental test, 1963		Expenditures per pupil 1962-63		State and local public school revenue as a percent of personal incomes	
	Per cent	State Rank	Per cent	State Rank	Per cent	State Rank
Kentucky	30.1	40th	275.00	46th	3.8	32nd
Ohio	16.3	26th	422.00	22nd	4.5	15th
Pennsylvania	15.8	24th	464.00	16th	3.7	36th
Tennessee	27.0	37th	262.00	47th	3.6	39th
Virginia	31.3	43rd	335.00	40th	3.5	42nd
West Virginia	30.2	41st	297.00	43rd	4.0	28th
Average for United States	22.8		432.00		4.0	

Source: November 1964, "Changing Time," The Kiplinger Magazine.

Table 3

Stanford Achievement Scores for 6th Grade West Virginia Students, Spring 1965.



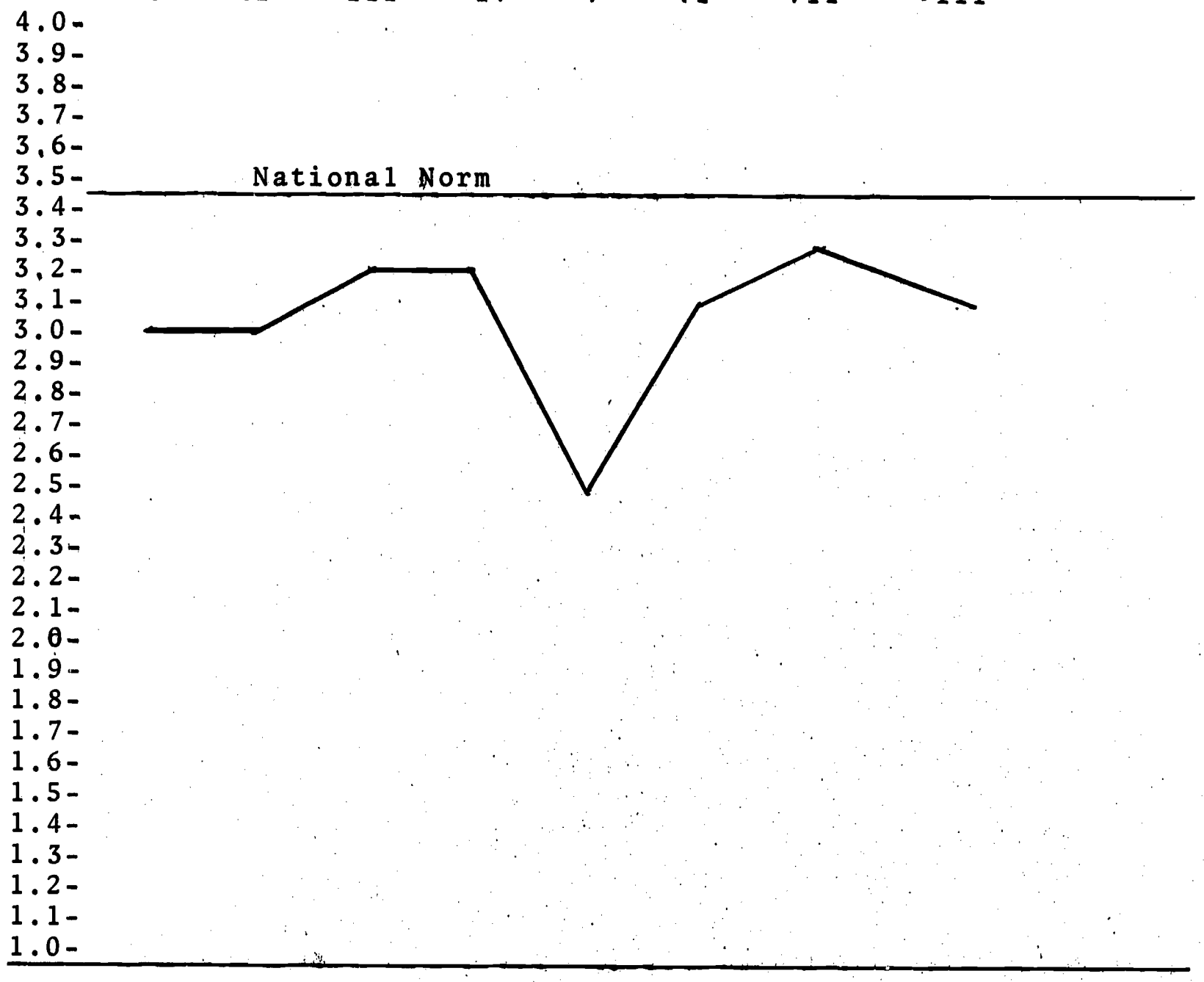
N=35,456 (total students tested state-wide)

Grade Score Equivalents: I Paragraph Meaning, II Word Meaning, III Spelling, IV Language, V Arith. Reasoning, VI Arith. Compre., VII Science, VIII Social Studies, IX Study Skills.

Source: (see other chart for ref.)

Table 4

Stanford Achievement Scores for 3rd Grade (West Virginia Students, Spring 1965)



N=36,226

Grade Norms: I Word Meaning, II Paragraph Meaning, III Science Social Studies, IV Spelling, V Word Study Skills, VI Language, VII Arith. Comp., VIII Arith. Concepts.

Table 5

Education Needs for Deprived Children as Listed on All West Virginia ESEA, Title I Propsoals by Order of Preference

	Preference Order			Preference frequency	Per cent
	1st	2nd	3rd		
Reading development	31	5	1	37	75
Health	2	4	9	15	30
Special Education and Services	1	7	6	14	28
Language instruction	5	4	2	11	22
Motivation (student)	2	1	6	9	18
Smaller Classes	4	4	1	9	18
Guidance & Counseling	0	3	4	7	14
Instructional matierals	1	3	3	7	14
Mathematics instruction	0	5	2	7	14
Social studies	0	3	4	7	14
Enrichment	1	5	0	6	12
English instruction	0	2	2	4	8
Teacher aides	2	0	2	4	8
Physical facilities	0	0	2	2	4
School-home relations	0	2	0	2	4
Industrial Arts instruction	0	0	1	1	2
In-service training (teacher)	0	0	1	1	2
Nutrition	0	1	0	1	2
Preschool enrichment	0	0	1	1	2

Source: West Virginia Department of Education, Charleston, 1966.

Table 6

Per centage of Schools Which Have Full-time Curriculum Supervisors by Indicated Areas

Curriculum	Appalachia	Nation
Music	32	42
Math	14	28
Art	8	23
Science	14	29
English	13	35
Foreign Language	20	31
History & Social Studies	16	35
Other	77	69

Source: Project Talent, Pittsburgh, The University of Pittsburgh, 1964.

TABLE 7

Number of One and Two Room Schoolhouses
Reported on a Statewide Basis

	Number
Kentucky	413
Ohio	NA
Pennsylvania	32
Tennessee	160
Virginia	42*
West Virginia	399

*Appalachia area

Source: State Department of Education, 1965 data.

TABLE 8

Guidance Counselors, Student Populations and Counselor/Student Ratio: Appalachian Area

	Number of Counselors	Number of Students	Ratio
Kentucky	86	N.A.	N.A.
Ohio	179	257,566	1/1439
Pennsylvania			
Tennessee	384	893,998	1/2328
Virginia			1/425
West Virginia	113	193,299	1/1534

Source: State Department of Education, 1965 data.

TABLE 9

Educational Levels of Persons 25 Years Old and Older, 1960

Appalachian Portion of	Persons 25 Years and Older	Less Than 5 Years of Schooling	4 Years of High School Or More	4 Years of College Or More
Kentucky	434,175	22.1	17.4	3.0
Ohio	407,444	7.1	33.3	4.0
Pennsylvania	3,443,354	7.2	38.4	5.7
Tennessee	857,720	15.9	28.5	5.5
Virginia	293,481	19.2	23.6	4.0
West Virginia	999,731	11.0	30.6	5.2
Total	6,435,905	10.5	33.4	5.2
Balance of United States	93,002,179	8.1	41.5	7.8

Source: 1960 Census

TABLE 10

Number of Unemployed and Rate of Unemployment, 1960

	Total Unemployed	Unemployment Rate
Kentucky	20,425	8.8
Ohio	19,609	7.9
Pennsylvania	172,014	7.9
Tennessee	34,358	6.0
Virginia	12,098	6.9
West Virginia	49,018	8.3
Total	307,522	
United States	3,504,827	5.1

Source: 1960 Census

Note: The number of unemployed and the rate of unemployment for the Appalachian portions of Alabama, Georgia, Kentucky, Maryland, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, and West Virginia, and for the balance of the U.S. are as follows:

	Total Unemployed	Unemployment Rate
Total Appalachia	380,468	7.1
Balance of United States	3,124,359	5.0

TABLE 11

Distribution of Family Income, Appalachia, 1960

	All Families	Less than $3,000	More than $10,000
Kentucky	209,007	57.3	3.6
Ohio	187,264	29.5	7.5
Pennsylvania	1,530,250	19.5	11.4
Tennessee	405,606	39.0	7.2
Virginia	137,518	42.5	5.0
West Virginia	462,078	32.6	8.4
Appalachia	2,831,723	29.7	9.6
United States	45,128,393	21.4	15.0

Source: 1960 Census

Note: 6.3% of all U.S. families live in Appalachia

8.7% of all U.S. families earning less than $3,000 live in Appalachia

4.0% of all U.S. families earning more than $10,000 live in Appalachia

Table 12

Per centages of Schools Providing Accelerated Curriculum
For Superior Students in Grades 9-12

Provision Made	Appalachia	Nation
Advanced Curriculum in any course	12	20
In One or More Science Courses	21	23
In One or More Math Courses	36	32
In One or More Languages	11	13
In One or More Courses Other than Science, Math, Language	9	13
None	63	55

Source: Project Talent

Table 13

Per centage of Schools Providing Indicated Types of Recognition for Achievement

Type of Recognition	Appalachia	Nation
Honors Courses or Other Special Classes	17	31
Privilege of Taking Additional Work	53	57
Dean's List, Honor Roll or other Published List	81	80
National Honor Society or Equivalent	60	59
Special Prizes or Awards	67	70
Commencement/Graduation Honors	7	9
Other Special Recognition	4	3

Source: Project Talent