

CONFIDENTIAL
Not For Reproduction



Analytical Case Study
of the
Korean Educational Development Institute

* * *

Third Interim Report

JOHN O. BOLVIN
WILLIAM F. GRADY
RAN SOO KIM
SANG JOO LEE
BETTY SCHANIZ
SETH J. SPAULDING
PAUL F. WATSON
PAUL H. MASONER
EDITOR

Third Interim Report

* * *

ANALYTICAL CASE STUDY

of the

KOREAN EDUCATIONAL DEVELOPMENT INSTITUTE

John O. Bolvin
William F. Grady
Ran Soo Kim
Sang Joo Lee
Betty Schantz
Paul E. Watson
Paul H. Masoner

Paul H. Masoner
Editor

The Analytical Case Study of the Korean Educational Development Institute is being conducted by the American Association of Colleges for Teacher Education in cooperation with the University of Pittsburgh under the terms of a Basic Ordering Agreement with the United States Agency for International Development (AID/ta-BOA-1378, T.A. #1) under the direction of the Educational Technology and Education Group, Development Support Bureau, and the Bureau for Asia/Aid.

1978

This Third Interim Report: An Analytical Case Study of the Korean Educational Development Institute is the third in a series of major reports to be issued during the Period July, 1975 - August, 1978. The report has been prepared cooperatively by members of the study team. However, the responsibility for the final form and substance of the report is that of the team leader who has served as editor.

Paul H. Masoner

TABLE OF CONTENTS

	<u>Page</u>
CHAPTER I INTRODUCTION.....	1-11
CHAPTER II ORGANIZATION, MANAGEMENT AND OPERATIONS.....	12-43
CHAPTER III THE ELEMENTARY-MIDDLE SCHOOL DEVELOPMENT PROJECT.....	44-60
CHAPTER IV TEACHER EDUCATION.....	61-73
CHAPTER V EDUCATIONAL BROADCASTING.....	74-88
CHAPTER VI THE EXPANDING ROLE OF KEDI.....	89-116
CHAPTER VII A PLAN FOR SELF-ASSESSMENT BY KEDI.....	117-143
APPENDIX	144-159

I. INTRODUCTION

The Analytical Case Study

The Analytical Case Study of the Korean Educational Development Institute was undertaken by the American Association of Colleges for Teacher Education in cooperation with the University of Pittsburgh in July, 1975. Two contractual arrangements with the United States Agency for International Development provide the authorization and the financial support for the project.

The initial contract, dated June 30, 1975, stated that the contractor will in the course of this study document the development of KEDI, assess its progress, and provide consultative resources for the continued development of KEDI and its operations.

The second contract, dated April 1, 1977, stated that the analytical case study was to be extended until August 31, 1978. During this period of time, the contractor is to complete the study, to develop an evaluation model which KEDI can use for continuous study and assessment of its educational reform programs, and to indicate the applicability of the KEDI model to other countries initiating similar reform efforts.

It has been understood throughout the project that the project would involve staff from AACTE, the University of Pittsburgh, and other institutions as well as Korean educators both as team members and consultants.

Korean Educational Development Institute

The Korean Educational Development Institute, founded in 1972 by the Ministry of Education as its external research and development component, is an independent, autonomous, and government-funded educational research and development center. Its primary mission at the present time is "to undertake comprehensive and systematic reform programs for the schools in Korea." However, once KEDI came into existence, the Ministry of Education and the nation looked to KEDI to assume a broader and more comprehensive role in Korean educational research and development. Thus, in the few short years of its existence, KEDI has assumed responsibility not only for the Elementary-Middle School Development Project which focused on the primary mission of comprehensive and systematic reform of Korean education in the first nine grades of the schools, but also for a number of other significant educational areas of concern. Included among these are the following: population education, air and correspondence studies at the secondary school level, teacher training research, industrial arts and skill learning, long range educational planning, Saemaul education (New Community Movement), informal and non-formal education programs, instructional and educational radio and television, women's studies, and educational policy studies. With the assumption of these significant tasks, KEDI has emerged as a major force for educational change in Korea.

Purposes of the Analytical Case Study

In view of the significant role which KEDI has assumed in the field of education, its progress and accomplishments are of considerable interest and concern to many individuals and groups in Korea - the Ministry of Education, universities and colleges, administrators and teachers in the public and private schools, the education community generally, the national government, and the public. In addition, the U.S. Agency for International Development, in view of its close relationships and involvement with KEDI since its founding, is particularly concerned about the role of the Analytical Case Study in assessing KEDI's progress and providing consultative resources for its continued development. Further, it is believed that the international community of educators in both developed and developing nations will find useful a careful and detailed documentation of a major educational reform effort which may have implications far beyond the borders of Korea.

Initial Project Tasks

Prior to the formal undertaking of the case study by a team of educators from the United States and Korea, the team leader, Dr. Paul H. Masoner, completed two planning documents on the basis of on-site visits to KEDI, conferences with KEDI staff, and discussions with external educational leaders and with AID staff. These two reports, which serve as a basis for the project plan and its development, are:

Report of Preliminary Planning Project for an Analytical Case Study of the Korean Educational Development Institute, April, 1975

Planning Information: Initial Team/Consultant Visit to Korea for Analytical Case Study of KEDI, July, 1975

First Interim Report

In November of 1975, the Analytical Case Study Team began the comprehensive study of the Korean Educational Development Institute during a three-week period of residence in Korea. Included in the team were five educators from the United States and two educators from Korea. In addition, a consultant group which provided assistance and support to the team included one educator from the United States and four educators from Korea.

The outcome of the initial team study has been reported in a 221 page publication entitled First Interim Report: Analytical Case Study of the Korean Educational Development Institute (1976).

Second Interim Report

During June - July of 1976, the Analytical Case Study Team continued its comprehensive study of KEDI during a second three-week period of residence in Korea. Team members continued to focus their attention on certain major concerns: KEDI organization, management, operations; the Elementary-Middle School Development Project; instructional and educational radio and television; and the expanding role of KEDI. Along with this focus on substantive responsibilities of KEDI, the team continued to look at KEDI's development as an institutional entity on the Korean educational scene. This process is described in the First Interim Report under the heading "criteria of success categories."

The report of the team is included in a 128 page volume, the Second Interim Report: Analytical Case Study of the Korean Educational Development Institute (1977).

Third Interim Report

During June - July of 1977, the Analytical Case Study Team again spent a period of residence in Korea in a continuation of its comprehensive study of KEDI. Once again the major focus of the study included such areas of importance as: (1) organization, management, and operations; (2) the elementary-middle school development project; (3) teacher education; (4) educational broadcasting; (5) the expanding role of KEDI; (6) a plan for self-assessment.

As in the past, a primary concern of the team was the continued progress of the Elementary-Middle School Development Project. This project, designed to accomplish a major and comprehensive educational reform of the elementary and middle schools of the Korean nation, represented the initial assignment of KEDI at the time of its inception and continues to be its major task. The team was especially concerned about the outcomes of the comprehensive demonstrations, about changes that have occurred in the project goals and purposes and the reasons for such changes, about the effectiveness of the KEDI educational system and the educational materials developed for use in the system. A focus of concern were the technical difficulties that T-Com had encountered and the inability of KEDI to develop any significant research data concerning the use of both radio and television in the small scale tryouts or the comprehensive demonstrations.

As in past team visits to KEDI, an emphasis was placed on the consultative role of the team in providing assistance to KEDI administration and staff. During the entire course of the stay in Korea, team members in their individual discussions with administration and

professional staff offered consultative advice and suggestions. In addition, at a final briefing just prior to departure, the team as a whole presented an oral report which included team findings and team recommendations. Prior to the publication of this report, draft copies were made available to KEDI for the review and use.

The report of the team is included in this current volume, the Third Interim Report: Analytical Case Study of the Korean Educational Development Institute (1978).

External Conferences

During both the first and second periods of residence in Korea, the case study team conferred with a number of key individuals external to KEDI - officials of the Ministry of Education; personnel of other government organizations; administration and faculty from universities, technical institutes, and junior teacher colleges; staff of private research institutions; and administration and staff of the public schools including provincial boards of education. These conferences were undertaken to identify the nature of the relationships that KEDI had developed with various relevant external groups. Further, efforts were made to determine the perceptions of KEDI held by these external entities.

Obviously, close working relationships and favorable perceptions of KEDI were and are important to the successful achievement of its role in the improvement of education in Korea.

During the third period of residence in Korea, the team continued its efforts to talk with leaders in the education community of Korea. Conferences were held with many leaders - from the Ministry of Education, the universities, the junior colleges of education, professional education organizations, international organizations, business and industrial leaders, and others. A list of important conferences is provided below. It should be noted that this list does not include the many conferences held with KEDI administration and staff.

CONFERENCES/DISCUSSIONS/OBSERVATIONS

BY MEMBERS OF A.C.S. TEAM

June 18 - July 5, 1977

<u>Date</u>	<u>ORGANIZATION/INSTITUTION/PURPOSE</u>	<u>Persons visited</u>
June 22	<u>USAID/Korea</u> To discuss project update and to review developments in KEDI during past 12 months	Dr. Mary Neville
June 24 - July 2	<u>Seoul National University*</u> To discuss KEDI developments and to review KEDI relationships with universities *Independent consultations	Dr. Bom Mo Chung Dr. Sang Joo Lee Dr. Jongchol Kim Dr. Yoon Tai Chung Dr. Dong Suh Park
June 23	<u>Korean Institute for Research in the Behavioral Sciences</u> To discuss KIRBS-KEDI relationships and to review KIRBS activities	Dr. Sun Jin Lee, Director
June 24	<u>National Institute of Education</u> To discuss NIE activities and NIE-KEDI relationships	Dr. Song Kyu Lee, Director
June 24	<u>Ajou Institute of Technology</u> To review KEDI activities and to discuss KEDI relationships in higher education	Dr. Hahn-Been Lee, President
June 24	<u>Korean Federation of Teachers</u> To discuss KEDI-KFI relationships and possible future cooperative projects	Dr. Woo-Shik Park, Secretary General Dr. Soon Bum Hong, Research Director

June 25	<u>Ministry of Education</u>	Mr. K. OK Chang, Director, Bureau of Textbook Compilation Mr. Jae Sun Lee, Director, Bureau of General Education
	To discuss KEDI-MOE relationships and future joint activities, especially in relationship to textbook development	
June 27	<u>Seoul Jr. Teachers College</u>	Dean Jae Kyu Park Bong Soo Kim, Associate Dean
	To review curriculum for elementary school teachers and to discuss implications of new KEDI educational program	
June 28	<u>United Nations Fund for Population Activities</u>	Dr. Richard Moore, Director
	To review and discuss KEDI role in population education	
June 28 - 29	<u>Pusan and Vicinity</u>	Principals, supervisors, teachers, industry representatives
	Team visit to primary schools, vocational schools, industry training program. Discussion of KEDI program with administrators and teachers	
June 30	<u>Ministry of Education</u>	Dr. San Duk Whang Minister of Education
	Team visit to meet with new Minister of Education and to obtain his per- ceptions of present and future role of KEDI	
June 29 - 30	<u>EWHA Womens University*</u>	Dr. Dong Chul Kim Dr. Woochul Kang
	To explore role of four year institutions in relation to KEDI special projects, and to pre-service in-service teacher education and media personnel training *Individual conferences	
July 1	<u>UNICEF</u>	Mr. Alan McBaine, UNICEF Representative
	To discuss KEDI projects related to UNICEF plans and support -- especially the establishment of a network of teaching and learning resources	

July 2	<u>UNESCO National Commission</u> To discuss KEDI role in terms of UNESCO plans and priorities	Mr. Hyo Kin Cho, Chief Planning and Research
July 4	<u>Dae Wob Industries</u> To discuss KEDI role in development of employees for industry and to review ICET World Assembly	Dr. Duk-Choong Kim President

Team/Consultant Membership

Members of the team involved in the June - July, 1977 study were as follows:

Dr. John O. Bolvin
Associate Dean and
Professor of Educational Research
School of Education
University of Pittsburgh

Dr. William F. Grady
Professor and Chairman
Division of Educational Communications
College of Education
Temple University

Dr. Ran Soo Kim
Professor of Education
Graduate School of Education
Yonsei University

Dr. Sang Joo Lee
Professor of Education
College of Education
Seoul National University

Dr. Betty Schantz
Assistant Dean and Professor of Education
College of Education
Temple University

Dr. Seth Spaulding
Professor of International and
Development Education
School of Education
University of Pittsburgh

Dr. Paul E. Watson
Professor of Education
Co-Director
University Center for International Studies
University of Pittsburgh

Dr. Paul H. Masoner (Team Leader)
University Professor of Education
Dean Emeritus
School of Education
University of Pittsburgh

Consultants to the team included the following:

Dr. Bum Mo Chung
Professor
College of Education
Seoul National University

Mr. Woochul Kang
Professor
College of Education
Ewha Women's University

Dr. Jongchol Kim
Professor
College of Education
Seoul National University

Mr. Dong Chul Kim
Professor
College of Education
Ewha Women's University

Dr. Hahn-Been Lee
President
Ajou Institute of Technology

Dr. Dong Suh Park
Professor
Graduate School of Public Administration
Seoul National University

II. ORGANIZATION, MANAGEMENT, AND OPERATIONS

A. Mission of KEDI

Previous interim reports have commented that the KEDI mission statements are appropriately broad. While it may not be necessary to change those statements, it may well be time to interpret them in reasonably specific terms. The prime reason for change in the study team's views on mission statements is as follows: Original statements identify KEDI as a research and development operation, but recent events suggest that KEDI may be expected to become heavily involved also in production and dissemination activities.

KEDI now directs considerable resources, human and monetary, toward the large scale production of mass media programs. In addition, it is now being asked to assume the textbooks compilation function formerly performed within the Ministry of Education. Even if no further demands for production and dissemination services are made and accepted by KEDI, those two may well overshadow research and development activities.

It is therefore felt that a review of the mission of KEDI and an interpretation of mission statements be made in order to clarify what KEDI can and should be doing in the best interests of Korean education.

Provided that the process is well defined, that appropriate participation is assured, and that necessary time is made available,

the review and analysis of the mission statements could accomplish the following:

1. Increase the interaction with Ministry of Education, teacher education, university, and other institute personnel within a focused framework.

2. Provide an opportunity for KEDI personnel to make a larger contribution to the role and direction of KEDI.

3. Clarify expectations regarding KEDI's role within the total education establishment of Korea.

4. Arrive at a new mission statement or interpretation which would then be generally understood and would provide a framework for appropriate response to demands and opportunities within a definition of research and development.

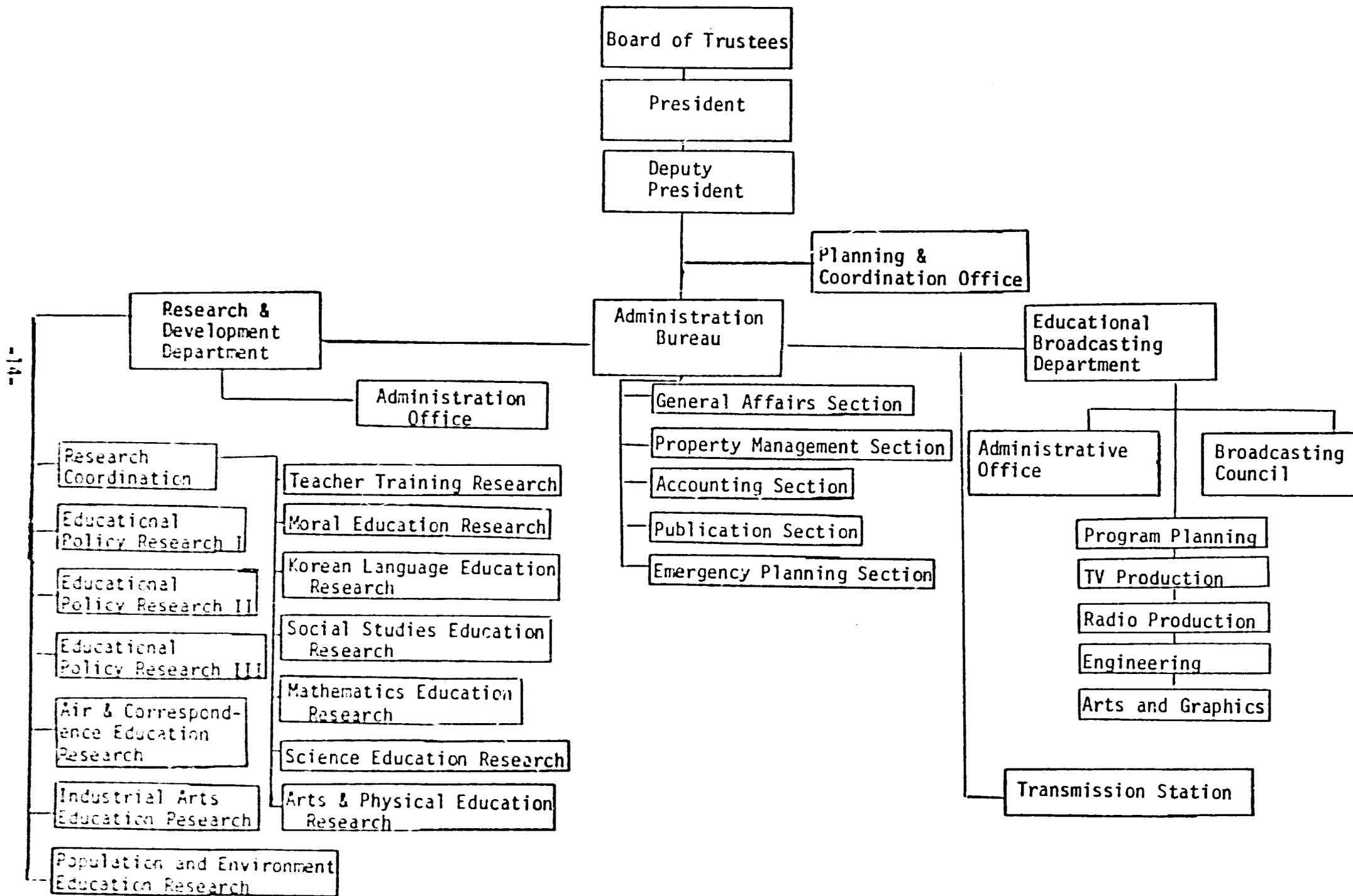
It is suggested that a review of KEDI mission be made as soon as possible and that an operationalized interpretation of mission statements be made.

B. KEDI Organization

Formal Organization

Figure I shows the organization chart for KEDI for 1977. It does not represent much change from the chart shown in the Second Interim Report. An Emergency Planning Section has been added to the Administration Bureau and an Arts and Graphics section to the Broadcasting Department. It does show differentiation, in the Research and Development,

Figure I. KEDI Organization Chart -- 1977



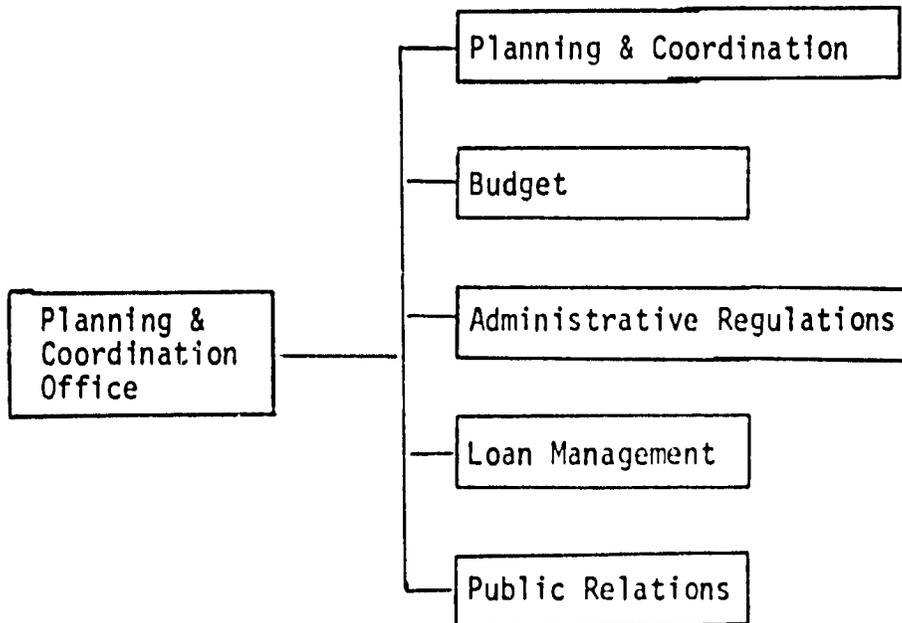
between Elementary-Middle School Project-related activities and contract work.

In the Second Interim Report (Figure IV, p. 22) there was a suggested chart which changed some linear relationships. The major reason for the proposed structure was to clarify the relationship of administrative units as service units to the research and programmatic operations of KEDI. The suggestion is here repeated that the administrative units be pulled off the organization lines common to program units and be made supporting offices to the appropriate management personnel.

Depending upon the outcome of a review and analysis of KEDI mission, formal structures will need to also undergo review. For example, if radio and television programs, instructional materials for the E-M Project, and involvement in textbook compilation go beyond the research-development-research-redevelopment-prototype stage of strict adherence to a research and development model, KEDI may wish to create clear structural differentiation for production and dissemination functions.

Figure II shows changes within the Planning and Coordination Office since the Second Interim Report. Auditing and Inspection and Civil Defense Emergency sections have been dropped from the chart and their functions subsumed in remaining sections.

Figure II. Planning and Coordination Office -- 1977



Board of Trustees. Having now had nearly five years of experience, KEDI should review the functions of the Board of Trustees to determine if the current make-up of the Board serves KEDI's purposes. Further, the proposed review of the mission statements may have implications for the Board's functions and its membership.

In many instances, Boards of Trustees are selected for one or more of the following reasons:

1. To lend prestige to the organization in order to increase respect for and visibility of the organization;
2. To recognize the importance of persons with large financial resources or influence in financial or political circles in order to improve the probability of increasing organizational funds and/or improving political relationships.

3. To provide the organization with a continuing source of professional advice and counsel.

KEDI may wish to deliberate about the mix and emphasis most compatible with its current needs and future aspirations. Given KEDI's international image, it may wish to include, at least in ex officio status, members from influential international organizations and institutions.

It is recognized that the Board of Trustees, for KEDI, is a quasi-legal body, and it may not be possible or desirable to make rapid or general changes in memberships. If that is the case, KEDI should consider creating a kind of program policy advisory board, made up of influential professionals, to serve the purpose noted in #3 above.

Current membership of the Board of Trustees is as follows:

Chairman:

San Duk Whang, Minister of Education

Trustees:

Kwang Deuk Koh, Vice Minister of Education

Il Jae Park, Director, Bureau of Sei Shi, MOE

Sang Joon Kim, Director, Office of Supervisors, MOE

Sook Jong Lee, Member of National Assembly

Yung Dug Lee, President, KEDI

Hang Yung Lee, President, Hongik University

Tae Ho Choi, Principal, Kyung Ki Commercial High School

Internal Structure. A continuing problem of organizations is how to assure middle-level supervision and coordination without formally elaborating the internal bureaucracy. A major problem has existed in the Research and Development department because it was impossible for the Director to give close supervision to the large number of projects under his control. During the past year, a revised system (described briefly in Chapter III) was instituted to overcome some of the problems inherent in such a massive and complex operation. It will be important that the new organizational-administrative plan be carefully monitored to determine its effectiveness and the need for further modification. However, with the added tasks and responsibilities growing out of the textbook compilation responsibility transferred from MOE to KEDI, it is apparent that a fundamental reorganization will be given consideration.

C. Management

In general this report iterates the comments in the Second Interim Report relating to management and again focuses attention on the Office of Planning and Coordination. The question must be raised as to the function of the Office. Should OPC be charged with responsibility for planning and coordinating or merely the coordination of efforts of various other KEDI units? At the present time OPC has neither the status nor sufficient staff and technical skills to do more than the latter.

It seems reasonable that most planning will indeed be conducted by the professionals at department and project levels. Professionals at those levels are more qualified to consider future directions of areas in which they are concerned. The basic question is how to facilitate planning by professional-technical personnel and then to assure that total organizational responses (structural, resource, management) to departmental/project program planning are appropriate.

Among possible options for KEDI are:

1. Top management can help create more status for planning and urge departmental and project heads to take on planning responsibilities. In such a case, OPC could provide a coordinating function by monitoring planning activities in the various units, by assisting in attaching budgets to future plans, and by identifying conflicts in the use of personnel or facilities.

2. OPC's planning capability can be upgraded by providing its personnel with training in technical planning skills and by attaching professionals from departments and projects to OPC for specific planning purposes.

In any case, as was pointed out in the Second Interim Report, OPC deserves and requires policy attention and appropriate training if it is to serve a serious planning function in KEDI. OPC personnel need to be able to assist all KEDI units in their planning and to influence

overall management policy and procedure. They need, then, to work in such areas as goal setting, future technique applications, resource needs analysis, and the like.

If a situation occurs in KEDI which is common to all educational institutions and endemic to R and D centers, there will be increasing tensions between bureaucratic and professional styles in programming, planning, and budgeting. The bureaucracy tends to emphasize short-term planning, budgeting as a strict control tool, and deadlines. The professional tends to seek freedom and autonomy normally associated with academic life. That potential conflict may accelerate if KEDI becomes more involved with production and dissemination activities and less involved, at least in personnel and budget percentage terms with research and development. There is no need for concern on this point at present. It is noted here to alert KEDI administration to the possibility of future problems.

Financial Resources and Distribution

Table I shows actual expenditures for 1976. Comparisons of actual expenditures with the 1976 Budget show the following differences by department (see Table II).

Table I

KEDI BUDGET SUMMARY 1976
(ACTUAL EXPENDITURES)

(In 1,000 won)	Personnel	Other	Total
Research & Development Department			
E/M Project			
Demonstration	16,458,000	17,187,000	33,645,000
Materials Development	64,185,000	23,155,000	87,340,000
Specification of Middle School Curriculum	-	1,678,000	1,678,000
System Evaluation	8,229,000	6,371,000	14,600,000
Manual of Education Objectives	-	139,000	139,000
Sub-Total	68,872,000	48,530,000	137,402,000
Policy Studies			
Technical Education	6,583,000	650,000	7,233,000
Teacher Education	6,583,000	1,907,000	8,490,000
Saemaul Education	4,937,000	1,930,000	6,876,000
Educational Planning	6,583,000	368,000	6,951,000
National Identity Study	-	2,039,000	2,039,000
International Meeting for Developing Curriculum	-	676,000	676,000
History of KEDI	-	1,000,000	1,000,000
Study on Value	-	1,600,000	1,600,000
Sub-Total	24,686,000	10,170,000	34,856,000
Contract, Project			
H.S. of the Air & Correspondence	21,797,000	156,149,000	177,946,000
Population Education	21,306,000	9,936,000	31,242,000
Women Education	2,150,000	2,951,000	5,101,000
Repeater	3,167,000	6,776,000	9,943,000
Sub-Total	48,420,000	175,812,000	224,232,000
Dept. Total	161,978,000	234,512,000	396,490,000

Table I (continued)

	Personnel	Other	Total
Planning & Coordination Office			
Planning & Coordination	19,749,000	8,224,000	27,973,000
PR & Diffusion	4,937,000	6,169,000	11,106,000
International Cooperation	-	148,000	148,000
Office Total	24,686,000	14,541,000	39,227,000
Educational Broadcasting Department			
Broadcasting	125,198,000	215,231,000	340,429,000
Broadcasting Transmission			
Transmission	48,241,000	18,050,000	66,291,000
Operations & Management			
Operations & Maintenance	101,008,000	49,239,000	150,247,000
Civil Defense Emergency	-	565,000	565,000
Library	-	283,000	283,000
O & M Total	101,008,000	50,087,000	151,095,000
Interest Expense			
Government Loan	-	48,500,000	48,500,000
AID Loan	-	18,956,000	18,956,000
EXIM BANK Loan	-	213,034,000	213,034,000
Local Bank Loan	-	4,075,000	4,075,000
	-	284,566,000	284,566,000
Debt Retirement -- Principal			
EXIM BANK Loan	-	450,656,000	450,656,000
Property	-	273,033,000	273,033,000
Miscellaneous Expenses	-	324,750,000	324,750,000
Total KEDI BUDGET	461,112,329	1,865,426,000	2,326,538,000

Table II

(In 1,000 Won)

Comparison of Budgeted and Actual Expenditures -- 1976

Expenditure Category or Department	Budgeted	Actual	Amount over Budget	% over Budget
R & D Department	4,096.17	3,964.90	(131.27)	(3.20)
Planning and Coordination	512.52	392.27	(120.25)	(23.46)
Educ. Broadcasting Department	* 9,400.88	3,404.29	(5,996.59)	(63.79)
Broadcast Transmission	* 1,692.94	662.91	(1,030.03)	(60.84)
Operations and Management	* 2,184.40	1,510.95	(673.45)	(30.83)
Interest Expense	4,048.95	2,845.66	(1,203.29)	(29.71)
Miscellaneous Expense	232.97	3,247.50	3,014.53	1,294.00
Property	* 2,555.21	2,730.33	175.12	6.85
Contingency Fund	235.61	----	----	----
Debt Retirement	4,506.56	4,506.56	----	----
	29,466.21	23,265.38	(6,200.83)	(21.04)

* In 1976 Budget, "Property" was shown in Broadcasting, Transmission and Operations and Management. In report of actual expenditures, "Property" is lumped together as a category. Therefore, 1976 budgeted amounts for "Property" have been removed from the departments and aggregated for comparison purposes.

Over all, KEDI spent about 21% less than was budgeted in 1976 with the most dramatic differences being found in Broadcasting and Transmission departments. Apparently the inability of the technical system to reach operational stages accounts for much of the difference in all KEDI departments. It might be useful, however, to make sure of how much the differences are accounted for by specific occurrences in order to verify or change the budget-making process.

The Miscellaneous Expense category shows that nearly thirteen times the anticipated amount was spent. One may assume that some of the unexpended amounts from other categories were diverted to miscellaneous use. But an amount in excess of 300 million won must have been, at least for the most part, chargeable to specific programs and offices in KEDI. Although 1976 may have been a very unusual year in terms of being unable to plan for expenditures, the 1977 budget also shows a large amount for Miscellaneous Expenses (127,959,000 won). That is a sharp departure from preceding year budgets.

Questions are: What are miscellaneous items? Can those expenditures be appropriately charged to existing programs and offices? What are relationships between miscellaneous and contingency budgeting?

Table III presents the 1977 Budget, Table IV summarizes operational costs, and Table V converts operational costs to percentages of total operational budget.

Indirect costs, in the 1976 Budget, were reported in the Second Interim Report as 14.1% of total operating expenditures. Actual expenditures for 1976 (see Table I supplied by KEDI) show that indirect costs were approximately 25%. The difference is a product of the large amount spent in the miscellaneous category. Since that amount was not identified with one or more programs, it had to be considered an indirect cost. Again, it is probable that most miscellaneous expenditures can be accounted for within existing budget categories.

The 1977 budget projects an indirect cost percentage of 18% -- an increase of 4% over the 1976 budget projection.

Table III

KEDI BUDGET SUMMARY 1977

(In 1,000 won)	Personnel	Other	Total
Research and Development Department			
E/M Project			
Teacher Education	15,210	4,600	19,890
Demonstration	9,161	4,505	13,666
System Evaluation	15,410	6,694	22,104
Basic Study for Curriculum Dev.	-	3,382	3,382
Vocabulary Study	-	662	662
Materials Dev.	104,878	160,147	265,025
System Dev.	15,210	3,478	18,688
Diffusion of Innovation	9,161	5,923	15,084
Manual of Education Objectives	-	16,360	16,360
Property	-	192	192
Sub-Total	169,030	206,023	375,053
Policy Studies			
Policy Studies	14,031	7,151	21,452
Saemaul Education	15,330	2,449	17,779
National Identity	-	703	703
Sub-Total	29,631	10,303	59,934
Contract Project			
H.S. of the Air & Correspondence	36,740	238,506	275,240
Population Education	6,404	1,800	8,204
Women's Education	4,314	5,726	10,040
Technical Education	59,148	74,355	133,503
Property	-	25,072	25,072
Sub-Total	106,600	345,459	452,065
Dept. Total	305,267	561,785	867,052

Table III (continued)

	Personnel	Other	Total
Educational Broadcasting Department			
Broadcasting	225,215	606,593	831,808
Property	-	104,083	104,083
	<hr/>	<hr/>	<hr/>
Dept. Total	225,215	710,676	935,891
Broadcasting Transmission			
Transmission	94,905	54,333	149,238
T-COM	-	139,233	139,233
Property	-	119,986	119,986
	<hr/>	<hr/>	<hr/>
Total	94,905	313,552	408,457
Operations & Management			
Administration	137,179	122,000	259,259
Civil Defense Emergency	6,131	2,099	8,230
Property	-	82,925	82,925
	<hr/>	<hr/>	<hr/>
Total	143,310	207,104	350,414
Planning & Coordination Office			
Planning & Coordination	28,433	6,743	35,176
Public Relations	6,738	4,873	11,611
Library	8,449	1,372	9,821
Books	-	2,500	2,500
	<hr/>	<hr/>	<hr/>
Office Total	43,620	15,488	59,108
Interest Expense			
Government Loan	-	48,500	48,500
AID Loan	-	24,088	24,088
EXIM BANK Loan	-	235,961	235,961
	<hr/>	<hr/>	<hr/>
Total Interest Expense	-	308,549	308,549

Table III (continued)

	Personnel	Other	Total
Debt Retirement -- Principal			
EXIM BANK Loan	-	450,656	450,656
Miscellaneous Expenses	-	127,959	127,959
Contingency Fund	-	17,215	17,215
	<hr/>	<hr/>	<hr/>
TOTAL KEDI BUDGET	<u>812,317</u>	<u>2,712,984</u>	<u>3,525,301</u>

Table IV

KEDI Budget Summary-Operational Categories

(In 1,000 Won)

1977

		Personnel	Other	Total
Policy Studies		29,631	10,303	39,934
Contract Projects		106,606	345,459	452,065
E-M Project				
From R and D Department	169,030	206,023	375,053	
Educational Broadcasting Dept.	225,215	710,676	935,891	
Broadcasting Transmission	94,905	313,552	408,457	
Interest Expense	--	308,549	308,549	
Total E-M Project		489,150	1,538,800	2,027,950
Total Direct Program Costs		625,387	1,894,562	2,519,949
Planning and Coordination		43,620	15,488	59,108
Operations and Management		143,310	207,104	350,414
Miscellaneous Expense		--	127,959	127,959
Contingency Fund		--	17,215	17,215
Total Indirect Costs		186,930	367,766	554,696
Total Operating Expenses		812,317	2,262,328	3,074,645
Debt Retirement: Principal (Proof Check)		--	450,656	450,656
Total KEDI Budget 1977		812,317	2,712,984	3,525,301

Table V
 KEDI Operating Expenditures -- Operational Category Percentages
 1977

	Direct Costs	Indirect Costs	Total
Policy Studies	1.58		1.30
Contract Projects	17.94		14.70
E-M Project	80.48		65.96
Planning and Coordination		10.66	1.92
Operations and Management		63.17	11.40
Miscellaneous Expenses		23.07	4.16
Contingency Fund		3.10	.56
	100.00	100.00	100.00
% Direct Costs of Total Operational Expenses			81.96
% Indirect Costs of Total Operational Expenses			<u>18.04</u>
			100.00

Human Resources

Figure 2 presents a complete list of KEDI personnel, since 1972, who have participated in professional development activities abroad. It is a most impressive list. Among those who have had such experiences under KEDI auspices, 15 have left KEDI. Of those 15, three have gone to private firms and seven to Korean universities, one has emigrated, and four have unreported destinations. Considering the pressure of competition for resources and the market for trained people, that is a remarkable record of personnel retention.

If the KEDI mission continues to evolve toward production and dissemination tasks, human resource needs may be met by the kind of bright, hard-working, and competent young people now involved. How long such people will be content to serve in the task roles available to them may be quite another matter. Indeed, the danger of their tiring of the tasks is accompanied by the danger that they may become fixed in place professionally and psychologically -- and therefore less useful in an R and D setting.

Following up on previous interim reports, it is suggested that KEDI develop two strategies for human resource utilization and development: supplemental resource involvement and professional growth training. The two strategies will, of course, overlap and interwine, but each will require separate policy and procedural treatment.

Figure 2

OVERHEAD COMBINATION
(Aug. 30, 1972 - Jan. 30, 1977)

S: Seminar OB: Observation
W: Workshop OJT: On the Job
 Training
T: Training C: Conference

NAME	TITLE	ROLE	CONTENTS	PERIOD	COUNTRY	REMARKS
Dr. Lee, Yung-Dug	Director	Director	UNESCO Conference	72.8.30-9.2	Thailand	S
Dr. Lee, Yung-Dug	Director	"	"	72.11.29-12.10	France	S
Dr. Lee, Yung-Dug	Director	"	"	73.3.26-3.30	Swiss	S
Mr. Park, Do-Sun	Researcher	Senior Researcher (Ed. Policy III)	Instructional Design	6.17-12.23	U.S.A.	T
Mr. Ryun, Yung-Kyo	"	Senior Researcher (Innovation)	"	6.17-12.23	U.S.A.	T
Mrs. Hong, Sun-Jung	"	Researcher (Teacher Ed.)	"	6.17-12.12	U.S.A.	T
Mr. Cho, Won-Ho	"	" (Instructional Material)	"	6.17-12.12	U.S.A.	T
Mr. Son, Hong	Producer	(1) (Resigned) Private Dec. 31, '74	EPV Production	6.17-12.12	U.S.A.	T
Mr. Kim, Dao-Hyun	Producer	(2) (Resigned) Dec. 31, '75 Civil Construction	"	6.17-12.12	U.S.A.	T
Miss, Han, Jung-Sun	Producer	(3) (Resigned) Trading Co. Aug. 30, 1975	"	6.17-12.23	U.S.A.	T
Mr. Kim, Jin-Sung	Producer	Producer (TV)	"	6.17-12.23	U.S.A.	T
Mr. Chang, Un-Hyo	Researcher	Senior Researcher (Demonstration)	Instruction and Learning	73.8.17-74.12.25	U.S.A.	T
Dr. Kim, Yoon-Tai	Researcher	Senior Researcher, Chief Researcher & Coordination	Management System	"	"	T

NAME	TITLE	ROLE	CONTENTS	PERIOD	COUNTRY	REMARKS
Mr. Park, Jao-Kun	Researcher	Researcher (Teacher Ed.)	Instructional System	74.6.29-12.20	U.S.A.	T
Mr. Kwak, Ryong-Sun	Researcher	Researcher (Ed. Policy III)	Educational Technology	74.6.29-12.20	U.S.A.	T
Mr. Koo, Hwak-Bong	Researcher	Senior Researcher (Office of Planning & Coordination)	Teacher Education	74.6.29-12.20	U.S.A.	T
Miss, Han, Jung-Sun	Producer	(3) (Resigned)	ETV Production	74.6.30-10.3	Japan	T
Dr. Lee, Yung-Dug	Director	Director	Pop. Ed.	74.7.8-7.19	U.S.A.	W
Dr. Shin, Kik-Bom	Director Ed. Policy Dept.	Director, Ed. Broad. Bureau	Pop. Ed.	74.7.8-7.19	U.S.A.	W
Dr. Shin, So-Ho	Director Inst. Material Dev. Dept.	Director, R & D Bu.	E-M Project	7.6-8.5	U.S.A.	W
Mr. Kim, Soo-Il	Researcher	Researcher (Pop. Ed.)	Pop. Ed. Internship	7.14-8.15	Thai, Philippines, Malaysia	T
Dr. Ahn, Chang-Il	Researcher	(6) (Resigned) Kub-Hin Univ. Dec. 31, 1974	Ed. Innovation	8.21-10.5	Phil., Thai, Japan, Singapore	T
Mr. Lee, Kye-Hak	Researcher	(7) (Resigned) Dong-Dug Women's	Adult, Ed. TV Program	8.31-10.30	Singapore	T
Mr. Lee, Yung-Soo	Researcher	Correspondence Ed.	"	8.31-10.30	Singapore	T
Mr. Oh, Jin-Suk	Researcher	Chief. Broad. Planning	Math. Ed.	9.3-12.7	U.S.A.	T
Dr. Kim, Ho-Kwon	Deputy Dir (R & D)	(8) (Resigned) Seoul Nat'l. Univ. Aug 31, 75	Curriculum Evaluation	9.7-9.20	W. Germany	W S & Ob
Dr. Kim, Ho-Kwon		(8)	"	9.27-10.12	France England	"
Dr. Shin, Se-Ho	Director. Inst. Material Dev. Dep.	Director, R & D Bureau	UNESCO Ed. Planning	9.3-10.2	U.S.A.	W

NAME	TITLE	ROLE	CONTENTS	PERIOD	COUNTRY	REMARKS
Dr. Yoo, An-Jin	Researcher	Senior Researcher Educational Policy III	Instruction and Curriculum	73.8.17-74.12.20	U.S.A.	T
Dr. Lee, Yung-Dug	Director	Director	E-M Projector	73.8	U.S.A.	C
Dr. Shin, Kub-Dom	Director Ed. Policy Dept.	Director, Di. Broad. Bureau	Pop. & Ed. Planning	73.9.10-9.18	Thailand	S
Dr. Shin, So-Ho	Director, Inst.	Director R & D Bureau	Ed. Dev.	73.9.11-10.25	Japan	W
Dr. Kim, Yung-Ho	Researcher	(4) (Resigned) Sep.4, 1974	Ed. Tech.	73.11.28-12.10	Japan	S
Mr. Song, Han-Young	Auditor	Auditor	Observation (TCOM)	73.11-	U.S.A. & Daham	Ob
Mr. Lim, Han-Ik	Director, Technical Support Bu.	Director, Office of Planning & Coordina- tion	"	73.11-	"	Ob
Dr. Lee, Yung-Dug	Director	Director	East-West Center-Conference	74.1.12-1.17	Philippine	C
Dr. Lee, Yung-Dug	Director	Director	Ed. Innovation	74.2.26-3.3	Thailand	S
Mr. Park, Dong-Won	Engineer	Head of Transmitting Site	On the Job Training(TCOM)	74.5.2-5.31	U.S.A. & Daham	OJT
Mr. Lee, Chul-Joon	Engineer	Engineer	"	74.5.2-5.31	"	OJT
Mr. Chang, Koe-Houng	Engineer	Engineer	"	74.5.2-5.31	"	OJT
Mr. Lee, Joo- Hyung	Engineer	Engineer	"	74.5.2-5.31	"	OJT
Mr. Choi, Jong- Jin	Researcher	(5) (Resigned) Mar. 25, 1976; Residence in U.S.	School Management	74.6.29-12.20	U.S.A.	T

NAME	TITLE	ROLE	CONTENTS	PERIOD	COUNTRY	REMARKS
Mr. Yu, Koun-Soo	Engineer	Engineer	Broadcasting Engineering	5.7-6.30	U.S.A.	T
Mr. Chang, Doo-Hyung	Engineer	Engineer	Broadcasting Engineering	5.7-6.30	U.S.A.	T
Mr. Chang, Un-Hyo	Researcher	Senior Researcher (Demonstration)	Completion of Ph.D.	6.1-8.31	U.S.A.	T
Mr. Suh, Chung-Wha	Researcher	Researcher(Documentation)	Completion of Ph.D.	6.1-8.31	U.S.A.	T
Mr. Han, Chong-Ha	Researcher	Researcher(ScienceEd.)	Completion of Ph.D.	6.1-8.31	U.S.A.	T
Mr. Kim, Hyung-Rip	Researcher	Researcher (Demonstration)	Instructional System	6.1-8.31	U.S.A.	T
Mr. Jun, Sung-Yun	Researcher	Researcher(Innovation)	Ed. Sociology	6.1-8.31	U.S.A.	T
Mr. Kim, Young-Chul	Researcher	Researcher(Ed.PolicyII)	Ed. Planning	6.1-8.31	U.S.A.	T
Mr. Kim, Seo-Il	Researcher	Researcher (Pop.Ed)	Pop. Ed.	6.1-8.31	U.S.A.	T
Mr. Kim, An-Joong	Researcher	Researcher(Moral Ed.)	Moral Ed.	6.1-8.31	U.S.A.	T
Mr. Kim, Hyun-Il	Producer,TV	Producer (TV)	Film Sound Work	6.10-7.28	Singapore	T
Mr. Si, Kil-Soo	Producer,TV	Producer (TV)	Film Sound Work	6.10-7.28	Singapore	T
Mr. Choi, Seung-Hak	Broad.Staff	Cameraman	Film Camera Work	6.10-7.28	Singapore	T
Mr. An, Jae-Kwon	Broad.Staff	Cameraman	Film Camera Work	6.10-7.28	Singapore	T
Mr. Sung Il-Je	Researcher	Correspondence Ed.	Student Eval.	6.21-	Japan	T
Mr. Park Joon-Yong	Broadcast. Staff (programming)	Programming	ETV Production	7. -	England	T
Mr. Chung Hoon-Sang	"	Planning & Coordination	ETV Production	7.21-	Japan	

NAME	TITLE	ROLE	CONTENTS	PERIOD	COUNTRY	REMARKS
Mr. Shin, Yun-Chul	Broad.Staff (Graphic)	Graphic	TV Animation	10.1-11.10	Singapore	T
Mr. Ro, Chong-hee	Researcher	Researcher (Ed. Policy I)	The 3rd Ed. Planning	10.20-12.10	Thai. Philippines	W
Mr. Kim, Yoon-Keun	Producer	Producer (TV)	Editing Film & Sound	10.28-12.8	Singapore	T
Mr. Park, Chong-Kyn	Engineer	Engineer	Editing Film & Sound	10.28-12.8	Singapore	T
Dr. Shin, Se-Ho	Director PSD Bureau	Director R & D Bureau	Ed. Dev.	11.27-12.22	West Germany	Ob.
Dr. Shin, Kuk-Bon	Director Ed. Broad. Bureau	Director Ed. Broad	CEPTA-TV	12.8-12.10	Indonesia	C
Dr. Kim, Yoon-Tai	Chief, Research & Coordination	Chief, Research & Coordination	Documentation & Information	77.2.15-2.23	Thai.	S
Mr. Hong, Ki-Hyung	Chief, Corresp. Ed.	Chief, Corres. Ed.	APEID (Ed. Tech.)	3.2-3.10	Malay, Singapore, Japan, Thai.	S
Dr. Kim, Yoon-Tai	Chief Research & Coordination	Chief, Research & Coordination	Ed. Media	3.2-3.10	U.S.A.	
Dr. Shin, Se-Ho	Director R & D Bur.	Director R & D Bureau	Student Eval.	77.3.17-3.26	Japan	W
Mr. Nam, Ouk-Moo	Deputy Director	Deputy Director	Observation (Broad.Syn.)	3.26-4.10	U.S.A.	Ob
Dr. Lee, Yung-Dug	Director	Director	APEID (Consultant & Eval.)	4.17-4.27	Thai.	C
Mr. Chung, Yung-Wong	Engineer	Engineer	Broadcasting Engineering	5.7-6.30	U.S.A.	T

NAME	TITLE	ROLE	CONTENTS	PERIOD	COUNTRY	REMARKS
Dr. Lee, Yung-Dug	Director	Director	New Trends in Ed. Tech.	75.10.18-10.26	Malaysia	S
Mr. Chung, Moon-Sang	Broadcasting Staff (Programming)	Office of Planning & Coordination	New Trends in Ed. Tech.	75.10.18-10.26	Malaysia	S
Mr. Jun, Sung-Yun	Researcher	Researcher (Innovation)	Ed. Inno. & Management	75.11.10-12.5	Indonesia	W
Dr. Lee, Yung-Dug	Director	Director	APEID	76.1.15-1.24	Thai.	S
Dr. Shin, Kuk-Bom	Director Ed. Broad. Bureau	Director, Ed. Broad. Bureau	CEPTA-TV & IHK	76.1.85-2.3	Singapore, Japan	C & Ob
Dr. Lee, Yung-Dug	Director	Director	Ed. Planning (Teaching & Learning)	76.3.8-3.12	France	C
Dr. Lee, Yung-Dug	Director	Director	Teacher Ed. & Science Materials	76.3.13-3.25	Japan	C
Dr. Lee, Yung-Dug	Director	Director	APEID	76.4.10-4.19	Thailand	C
Dr. Shin, Se-Ho	Director R & D Bur.	Director R & D Bureau	E-M Project	5.31-6.1	U.S.A.	C
Dr. Shin, Kulo-Bom	Director Ed.	Director Ed. Broad. Bureau	Satellite Communication	6.20-77	U.S.A.	S
Mr. Hong, Sah Hyung	Researcher	Pop. Ed.	Pop. Ed.	6. 1976	Thai.	T
Miss, Shin, Kun-Ja	Researcher	Pop. Ed.	Pop. Ed.	"	Thai.	T
Dr. Lee, Yung-Dug	Director	Director	Communication Policy	7.11-7.16	U.S.A.	S
Dr. Shin, Kub-Bom	Director Ed. Broad. Bureau	Director Ed. Broad. Bureau	Pop. Ed.	8.8-8.11	Phillipines	S
Mrs. Park, Kyung-Sook	Researcher	Researcher (Ed. Policy III)	Ed. Tech.	8.12-9.30	Japan	T
Mr. Leom Kwang-Pyo	Researcher	Researcher Correspondence Ed.	Correspondence Ed.	9.6-10.15	New Zeland	T
Mr. Kim, Sang-Hon	Broad. Staff (Film)	Chief, Film Section	TV Animation	10.1-11.10	Singapore	T

NAME	TITLE	ROLE	CONTENTS	PERIOD	COUNTRY	REMARKS
Mr. Park, Hyung-Ha	Engineer	Engineer	Broad. Sys. Install & Operation	5.25-6.25	U.S.A.	T
Mr. Kim, Sub-Keun	Engineer	Engineer	"	5.25-6.29	U.S.A.	T
Dr. Shin, So-Ho	Director	Director R & D Bureau	Curri - Dev.	6.2-7.4	Thai	W
Mr. Song, Yong-Eui	Researcher	Researcher Soc. Stu.Ed.	Pop. Ed.	6.10-7.14	Malaysia	T
Mr. Kim, Jin-Sung	Producer	Producer (TV)	Ed. TV Production	7.3-9.28	Japan	T
Dr. Song, Yoo-Jae	Researcher	(11) (Resigned) Ewha woman's Univ. Mar.5,'77	Ed. Tech.	7.26-8.5	Singapore	W
Mr. Lee, Yung-Soo	Researcher	Researcher Corres. Ed.	Ed. Tech.	75.8.16-77	U.S.A.	T
Dr. Lee, Jung-Kaun	Researcher	Tech. Ed. Research	Tech. Ed.	75.8.27-77.4.25	U.S.A.	T
Dr. Shin, So-Ho O	Director Inst. Material Dev. Dept.	Director, R & D Bureau	Curr. Dev.	75.8.30-9.17	Afghanistan	W
Mr. Chung, Hoon-Sang	Broadcast. Staff (planning)	Office of Planning & Coordination	Ed. Media Planning & Production	75.8.30-10.17	Malaysia	T
Mr. Cha, Joon-Lak	Producer (Radio)	Producer	ETV Production	75.9.14-76.3.31	U.S.A.	T
Mr. Park, Hun-Tae	Researcher	Researcher Broad. Evaluation	ETV Production	75.9.14-76.3.31	U.S.A.	T
Mr. Chung, Tne-Bum	Researcher	Researcher (Sys. Eval.)	Ed. Management	75.9.14-76.3.31	U.S.A.	T
Mr. Ha, Sung-Hae	Producer	Producer (Radio)	ETV Production	75.9.30-75.11.2	W. Germany	T
Mrs. Lee Yung-Ja	Researcher	(12) (Resigned) Mar. 5, 1977 Dong Dug Woman's University	ETV Production	75.9.30-76.1.10	W. Germany	T
Mr. Kho, Yung-Hee	Researcher	(13) Resigned) Chosun U Univ. Mar. 31, 1976	Film Production	75.10.10-12.7	Singapore	T
Mr. Hong, Dong-Shik	Researcher	Researcher (Vocational Ed.)	Film Production	75.10.10-12.7	Singapore	T
Mr. Song, In-Duk	Broad. Staff (Program.)	Broad. Eval.	Film Production	75.10.10-12.7	Singapore	T

NAME	TITLE	ROLE	CONTENTS	PERIOD	COUNTRY	REMARKS
Dr. Kim, Jae-Bom	Director, Sys. Dev. Dept.	(9) (Resigned) Chung Ang Univ. Mar. 31, 1976	Pop. Ed.	9.8-10.8	Hawaii	W
Dr. Shin, Kuk-Bom	Director, Ed	Director Ed. Broad. Bu.	"	9.15-9.21	Hawaii	W
Mr. Suh, Chung-Hwa	Researcher	Researcher (Demonstration)	Management System	9.14-76.3.7	U.S.A.	T
Mr. Han, Jong-Ha	Researcher	Researcher (Science Ed)	Science Ed.	9.14-77.3.31	U.S.A.	T
Mr. Lim, Han-Ik	Director, Tech. Sup- port Bu.	Director, Office of Planning & Coordination	Pre-Bid Conference	74.9.28-74.10.18	U.S.A.	C
Mr. Yang, Sung- Won	Engineer	Head, Engineering Office	Pre-Bid Conference	"	U.S.A.	C
Dr. Lee, Yung- Dug	Director	Director	Ele. Ed.	74.10.13-10.20	Vietnam	S
Dr. Kim, Ho-Faon	Deputy Dir. (R & D)	(8) (Resigned	E-M Project	10.5-10.12	U.S.A.	C
Dr. Shin, Kulo- Bom	Director Si Policy Dept	Director Ed. Broad.Bu.	CEPTA-TV	74.12.1-12.8	Singapore	C
Dr. Shin, Kuk- Bom		"	Pop. Ed.	75.1.3-1.23	Thai	W
Mr. Park, Do-Sun	Researcher	Senior Researcher (Ed. Policy III)	Teacher Ed. & Ed. Inno.	2.27-3.30	Japan	T
Dr. Shin, So-Ho O	Director Material Dev.	Inst. Dept. Director R & D Bureau	Ed. Tech.	9.1-2.13	Japan	W
Dr. Lee, Yung-Dug	Director	Director	Ed. Inno. Management	3.15-4.2	India	W
Dr. Kim, Shin-Bok	Senior Researcher	(10) (Resigned) Apr. 1, 1976	Tech. Ed.	4.9-4.20	Malaysia	W
Dr. Shin, Kuk-Hon	Director Ed. Policy Dept.	Director Ed. Broad. Bureau	Teacher Ed. & Curr. Lev.	75.5.18-6.1	Philippines	W
Mr. Yang, Sung- Won	Engineer	Head, Engineering Dept.	Broad. Sys. Install. & Operation	5.25-6.29	U.S.A.	T

Supplemental Resource Involvement could contain the following elements:

1. Developing procedures and agreements for seconding university professors of senior status to KEDI to direct specific major research projects;

2. Direct involvement of the Ministry of Education and teacher training institutions in research and production activities for specified periods of time;

3. Creation of some mechanism such as that used at the Korean Development Institute to establish and involve KEDI "fellows" or "associates" with clearly defined privileges and responsibilities;

4. Developing procedures for subcontracting specific research and production tasks to other institutes or institutions.

Professional Growth and Training strategies could include the following, given the implementation of some of the items above:

1. Developing procedures for seconding KEDI personnel to universities, institutes, for research, management, production, or study activities;

2. Provision of time for project-type work with colleagues from the Ministry and other agencies;

3. Building a need-for-training in much the same way KEDI builds budgets -- starting by department or office, and constructing a KEDI-wide

program for in-service training within the inevitable financial and time constraints.

It is quite possible, and even natural, that these suggestions be perceived as impractical given the heavy demands upon KEDI for services. Obviously the Ministry of Education looks more and more to KEDI as a problem-solver, and tasks thus created must be done. But KEDI, if it is to continue to respond to needs and to also be on the growing edge of education in Korea, has no alternative but to assure the availability of responsive and inventive human resources. Therefore, involvement of an expanded talent pool, and the continuous growth among KEDI personnel are not only practical efforts; they are imperatives!

It is recognized that some of the suggestions, such as the seconding procedure, may be very difficult to implement, in part because there exist government regulations and inter-institutional perceptions which discourage any but consultant type relationships. However, a proposal could be made to the government to clear the way for appropriate arrangements. One alternative for KEDI is a ballooning personnel roster and a concomitant preoccupation with day-to-day management.

D. External Relations

Relationships between KEDI and MOE continue to be very good at top levels. As has been suggested, MOE clearly sees KEDI as an effective organization and one on which great expectations may be placed. While it is professionally rewarding to be perceived as effective, continued profit from such perceptions depends almost entirely upon the degree to which KEDI and MOE agree upon and live with KEDI's mission.

It might be argued that KEDI does not exist in order to ease the burden of the MOE but to increase that burden. If KEDI performs R and D functions and the results are educationally persuasive, then it is up to the MOE to do the policy and system-wide diffusion work. Unless KEDI's limited resources have limited focus, then it becomes something both more and less than an R and D operation, and ultimately more and more like a ministry of education.

With MOE, then, it is not only important that "good" relations exist, but also that "clear" functional relationships exist. Again, statements under the KEDI mission section of this report should be given consideration.

In terms of other relationships, there is the question of how much autonomy is necessary to attract and hold high level professionals and to permit research generated from within KEDI. Obviously, KEDI's

autonomy will be limited by its setting. Nevertheless, it could decide to aggressively seek private, nongovernmental sponsors in order to lessen reliance upon MOE and permit the performance of KEDI-initiated R and D activity.

In order to be attractive to nongovernmental sponsorship, it may be that KEDI should design some basic research projects in teaching, learning, administration, and the like; perhaps utilizing pieces of the Supplementary Resource Involvement strategy discussed above. In external relationship terms, such activity would enhance KEDI's reputation among university scholars, help achieve status such as that enjoyed by KDI, and emphasize the long-term significance of KEDI.

KEDI has made particular efforts over the past year to relate to various groups. Among those efforts are the following:

1. Public hearings to survey opinion on appropriate policy in reference to school repeaters;
2. International conference on curriculum development attended by representatives from Malaysia, Thailand, Philippines, and Sri Lanka;
3. A conference on the diffusion of innovations involving the administrators of provincial boards of education and pilot school principals;
4. A nine-day symposium, co-sponsored with the National Economic Association, attended by scholars, journalists, and businessmen to discuss educational policy;
5. A seminar on diffusion and teacher training involving deans of 13 teachers colleges, MOE personnel, KFEA representatives, and KEDI researchers.

III. The Elementary-Middle School Development Project

A. Introduction

The purpose of this report on the growth and development of the E-M Project is to provide KEDI, USAID, and others an analysis of activities for the period July, 1976 to July, 1977. In the spirit of an analytic case study no attempt is made to document all detailed happenings nor to repeat in detail information reported in other documents. The highlights for this report are grouped under: (1) accomplishments, (2) observations and reactions and (3) commentary on staff of the E-M Project. An attempt is made throughout to relate the commentary to the basic goals and purposes of the E-M Project.

B. Accomplishments

The accomplishments of the E-M Project are directly related to the continued growth and maturity of the parent organization, KEDI. The Korean Educational Development Institute has grown in scope and in depth and is receiving wider acceptance as a research and development institute by all levels of government, by professional educators and by educationally related organizations and agencies. The E-M Project, as the first and still the major project in KEDI, has been an integral part of this growth through its progress and activities.

Prior to a description of the specific accomplishments of the E-M Project mention should be made of organizational change which has been a facilitator and indirect contributor to the E-M Project accomplishments.

In the Second Interim Report there was a discussion of a revised organizational system for the E-M Project. This revised system was instituted to improve communication, facilitate development, and increase the efficiency of the operations. During the past year this new organization has been refined and has thus improved the internal operations of the project. The functions of the various offices have been more clearly defined, and individuals in different offices now have a better perception of what to expect from each other. It should be noted that, although there is greater clarity of the functions and descriptions of who is responsible for what, there is still a degree of flexibility built into the structure so as not to limit or constrict the developmental activities. The current mix of structure and flexibility appears to meet the needs of the project. Since any organizational scheme is only as good as the people who make it function, the current effectiveness of this scheme is a credit to the leadership team of the E-M Project.

During this year the E-M Project staff successfully completed the second comprehensive demonstration and are midway through the third comprehensive demonstration. The results of the second demonstration indicate a consistent growth in achievement in all subjects within the third, fourth, and fifth grades. In comparisons between the demonstration schools and the reference or control schools the results show that the demonstration schools have, on the average, higher achievement and that a larger percentage of students in the demonstration schools are achieving the established mastery level. Also, of significant note, the

results would seem to indicate that the achievement of the students in the rural areas has increased proportionately more than those in the large urban communities.

Since both improved achievement of all students and a reduction in the achievement gap between the urban and rural areas are major objectives of the E-M Project, the results of the second demonstration indicate that the KEDI system is having the desired impact upon the schools.

In addition to achievement measures the E-M staff also attempted to assess: attitudes toward the KEDI system by principals, teachers and district supervisors; study habits of students; student self-concepts; and student attitudes toward learning. In terms of student self-concept and student attitudes, no significant differences were found between the demonstration schools and the reference schools. However, teachers, principals, and supervisors in the demonstration schools showed favorable attitudes toward the KEDI educational system.

Another accomplishment of the E-M Project staff is the completion of the first small scale tryout of the KEDI system in the middle school. Units in Science and English Language designed to incorporate the total KEDI system were tested in two middle schools, one in Seoul and one in Inchon. Materials for this tryout included prototype teacher guides, student workbooks, and broadcasting units of 5 ITV programs and 3 IR programs. Three ITV programs and two IR programs were for English Language, two ITV for Science and one IR for Science. In addition to the various materials, the

classroom management system and the teacher training system were incorporated in the tryout. The results of this tryout have provided KEDI with valuable information on the adaptation of the KEDI system to the middle school.

Also, during the past year, the E-M Project staff has completed work on the curriculum, student guides, and teacher guides for the sixth grade, and work is either in progress or completed on the curriculum and student and teacher guides for the second grade. The curriculum and materials for the sixth grade students are being utilized in the third comprehensive demonstration now under way. From informal feedback from teachers the content and quality of the KEDI developed materials for the sixth grade is excellent. The quality of these materials reflect the careful planning procedures now in operation, as well as the improved skills and abilities of the developers that experience generates.

Related to the materials development completed during this year is the work of the Social Studies team in their development and field testing of a prototype social studies text book unit. Their work clearly indicates the sound substantive knowledge and the creative abilities of the E-M Project staff. This unit, which encompassed the textbook and much of student guide materials in one volume, should provide valuable information to KEDI on costs, limitations of production, student and teacher acceptance, and other related matters. Prototype development such as this must be a continued involvement of KEDI and the E-M staff in particular.

Yet another accomplishment of the staff has been their involvement in the Newsletter that goes to the demonstration and cooperating schools. The emphasis of this newsletter on helping the teachers to improve their teaching has necessitated the involvement of nearly every staff member on the E-M Project. The time and effort devoted to this endeavor seem to be appreciated by the teachers and principals in the field. Related to this task was the publication by KEDI of the results of local research carried out by the various research responsible teachers and in one case by a group of schools working cooperatively with a Junior Teachers College. This latter report titled, Field Studies on Implementation of the New Educational System, includes various studies on achievement, attitudes and student study habits. Studies such as these should be encouraged by KEDI and included as an on-going activity.

Still another accomplishment of the E-M staff has been their involvement in 37 additional cooperating schools for the third demonstration. With the addition of these schools, KEKI now services over 179,000 students and 3,093 teachers in 16 demonstration schools and in 179 cooperating schools. For these schools KEDI has provided teacher training, coordinated the printing and distribution of the materials, and serviced the schools through a variety of ways. Considering the size of the E-M staff, this must be considered a major achievement.

Another accomplishment, though not of the same type of those mentioned above, is the apparent change in verbal references to the KEDI system. A year ago most teachers and principals and even some KEDI staff spoke of the materials as though these are the KEDI system. This year, however, a

change has occurred. Teachers and principals with whom team members spoke seem to recognize that the materials are a reflection of the system and not the system itself. All of the KEDI staff seem to recognize this factor.

In addition to the many accomplishments of the E-M Project, the staff has continued to serve in a supporting role to many of the other activities of KEDI. During this year the number of visitors to KEDI, both Korean and international, has continued to grow. The E-M staff has participated in some way in the activities of most of these visitors. In addition, the staff has been heavily involved in the programs designed for local school personnel, including teachers, principals, vice principals, and supervisors. In all, more than 1,000 educators and future educators have benefitted from the lectures and discussions provided by KEDI. Closely related to this activity are the more formal professional seminars and workshops provided to teachers, administrators, and supervisors to acquaint them with the KEDI instructional system. The time and effort devoted to these activities will undoubtedly facilitate KEDI's work in the future.

One significant development that reflects the government acceptance of KEDI as well as the recognition of KEDI as a viable R and D institute by many professional educators is the current decision by MOE to have KEDI take over the responsibilities for the compilation of textbooks for the elementary and secondary schools. The Korea Times, Sunday, July 3, 1977, reported

The Korean Educational Development Institute will take over the compilation of textbooks for the primary and secondary schools from the Ministry of Education at the beginning of the 1979 academic year, ministry sources said yesterday.

The KEDI, braintrust of the ministry, will be responsible for the planning, selecting writers, copy reading and editing of the proposed textbook manuscripts, according to the sources.

During the past few months the staff of the E-M Project has devoted considerable amounts of time to developing plans and procedures in preparation for this new venture. Members of the E-M evaluation staff have been analyzing the curricula, existing textbooks, and other supportive materials to determine the magnitude of the tasks. Members of the E-M subject matter teams have been involved in curriculum analysis and content specifications, and some members have begun to assemble sample textbooks and supplementary materials to determine the feasibility of including in the proposed textbooks portions of materials similar to what now appears in the KEDI student guides. This potential involvement of KEDI in textbooks revisions and eventual curriculum development and revision is essential if KEDI is to achieve its long term goals for educational innovation and improvement in Korea.

There are of course other accomplishments and important involvements of the E-M Project staff that could be mentioned. However, the attempt here is to give a broad perspective to the efforts of the E-M staff and to give the reader a sense of the scope and achievements of such project.

C. Observations and Reactions

The purpose of this section is to examine more carefully some of the important tasks and happenings that involve the E-M Project and to provide some observations and suggestions related to these. The instances singled out to be reported on at this time relate to KEDI's progress toward the achievement of the major goals and purposes as well as the projected specific goals of the E-M Project for the next year or two.

The plan for and the eventual data collection and analysis from the involvement in the second demonstration is in keeping with the proposed system of evaluation for the E-M Project. The data collected and analyzed seriously attempts to address the stated "Payoff Goals" specified by the KEDI plan. (See First Interim Report, Analytical Case Study of the Korean Educational Development Institute, AACTE, 1976.) The planned report on the findings of the second demonstration is comprehensive and sound and should be of interest to many researchers involved in change projects throughout the world.

In addition to the planned project use of the data on the second demonstration, there are several other uses for these data that should be considered by the KEDI researchers. First of all, these data should become part of a continuing pool of information that can serve as base line or bench mark data for longitudinal analyses. To serve as such, there must be a consistency in the assessment instruments to provide valid comparisons.

Further, there are interesting research questions that grow out of a review of the data, such as:

1. What are the possible explanations for the continued rise in achievement scores evidenced by the reference or control groups?
2. What difference is there in performance of teachers who have had one and two years experience with the KEDI model?
3. What difference is there between KEDI schools that incorporate various aspects of the management system?

In this regard, one research study conducted during the second demonstration should be of special interest to the researchers in the E-M Project. This study, The Relative Importance of Selected Variables in the New Educational System in Terms of Class Achievement, looked at such variables as the degree of implementation of the instructional model by the teacher, the emphasis given by the teacher to the higher level thought process, use of instructional radio in the classroom, and eight others. The results obtained in this one study are not only important for current project use but should help raise similar questions and related questions for further research.

The work of the curriculum development staff has continued to improve. Both a review of some of the newly developed materials as well as a consideration of the types of revisions being made in the previously used materials support this belief. As was noted earlier, several of the teachers have commented on the improved quality of the materials, especially those designed for the sixth graders.

In its efforts to continuously improve the quality of the materials provided to the students and the teachers, KEDI has made continued use of university scholars and provincial research specialists, and has involved teachers in the participating schools both as paid consultants and interested reactors in the KEDI review process. The active involvement of all of these persons is essential for continuous feedback to the subject matter specialists. If anything should be considered for possible change in the current procedures, it would be a return to the principle of small scale tryouts of prototype materials in each subject area with a few students. There are many small elements related to student use that can only be examined by testing the materials with the proposed users before large scale printing and dissemination.

During the past year KEDI has moved ahead very well in the involvement of teachers and other professionals in the developmental work of the E-M Project. Several of these activities have been mentioned above, including the Newsletter, the Field Research Report, and the teachers' role in materials' review. KEDI should continue to expand such efforts and should examine other processes by which teachers may be further involved. One needed area of assistance for many teachers in which selected teachers might be involved is that of providing demonstration lessons. KEDI should seriously consider developing demonstration classrooms that can show a fully implemented system to the teachers. It is one thing to describe a situation, but it is entirely different to see one in operation.

KEDI has done an excellent job in implementing its current management procedures that are designed to service the existing demonstration schools and cooperating schools. Providing materials and service to 195 schools, 3,093 teachers and over 179,000 students is a complicated process. Yet, KEDI has been able to meet this challenge. However, as the time approaches for more widespread diffusion, KEDI must develop a comprehensive diffusion schedule and plan. Such a comprehensive plan must be developed well in advance of the actual time for implementation to give many professionals outside of KEDI a chance to review and react to the plan. It is certain that such a comprehensive plan will require support and services from other institutions, agencies, printing companies, MOE, and others, since KEDI will not have the capabilities for providing all of the components of a truly comprehensive plan. The actual role of an R and D institute in national diffusion must always be carefully considered not only to protect the original intent of the innovation, but also in keeping with the staffing capabilities of an R and D institute.

One other comment should be made relative to the national diffusion of the E-M Project. The KEDI innovative system, which is unique to Korea, was designed to utilize ITV and IR as basic components. If, as the project moves ahead, it appears that either one of these components can not be included in the initial program

designed to reach a significant number of the most needy population, then real alternatives to ITV and IR must be examined and developed until such time as ITV and IR are fully available. It is not enough to simply add sections to the teacher's manual to describe the ITV or IR lessons so that teachers can substitute for these lessons. Such an action is saying that these components are actually supplementary and not basic to the program. If, on the other hand, these components are truly basic, then some temporary alternative substitution must be arrived at through careful analysis and field tests. It is certain that KEDI designers of the system considered alternatives to ITV and IR in the early stages of development but disregarded many of them because they were considered less effective or because of expense or lack of human resources. These alternatives should again be reviewed and a case made for additional funds or manpower, if these are essential. At the same time, plans for eventual use of ITV and IR should be continuously reviewed, updated, and improved.

KEDI's productivity and efforts during the past year have led to improved relations with outside institutions and agencies, higher quality materials and services, and a more highly competent research staff developed through the several training programs, through actual working experience, and well-planned staff recruitment. However, KEDI must now examine its long and short term personnel needs and begin to look ahead and plan for continued staff training and upgrading.

Currently there are seven members of the E-M Project staff participating in either short-term courses or degree programs at Florida State University and other U.S. institutions. This number of staff on leave obviously affects production. However, since the training contract with Florida State is terminating and since available funds must be used, this is an exceptional situation. It is evident that others in the E-M Project are working harder to compensate for this temporary loss of staff, so the effect on production seems to be minimal. However, in the future KEDI should attempt to space the training programs in terms of work needs. This observation is not meant to suggest that KEDI lessen its commitment to staff development, but to simply suggest that as KEDI matures, it must plan for staff development in a systematic way that considers both research and development needs as well as staff needs.

Related to the training of staff of the E-M Project, there are three suggestions that might be considered:

1. Staff of KEDI should be encouraged to continue study in their respective fields at local universities.
2. Experts in each of the subject areas should be given time to work with the staff on learning and curricula problems. For example, linguists could be brought in for several days to work with the Korean Language team on structure and content.
3. The researchers of KEDI should be given time to pursue some

independent research studies that will have long term payoff for curriculum development.

Although the materials as developed have been improving in quality, there is still a need for Korean Language specialists to work with the various subject matter teams to assist in insuring a consistency of language and vocabulary throughout the materials. The student materials should reflect a high quality of language that is written to the reading level of the students who are expected to study and understand the printed word. This is most important if KEDI is to become responsible for the total textbook compilation in Korea.

D. Commentary on the Professional Staff of the E-M Project

Throughout this report as well as in previous reports, many references have been made about the staff of the Elementary-Middle School Development Project. There is no doubt that the successes and accomplishments of this project as well as much of the recognition of KEDI is a result of the efforts of this staff. Currently, there are 47 professional staff members (excluding senior administrators and research professors) involved in activities of: curriculum and materials development, teacher training, system evaluation, demonstration and diffusion, school and classroom management procedures, materials control and diffusion, and data collection. Considering the range of activities required in the development and dissemination of a massive innovation, the involvement of 195 schools, 3,093 teachers and

179,000 students, and the rigorous time schedule set out in 1973 for the completion of the tasks, it is obvious that extraordinary demands have been made on this group. In spite of these demands, KEDI has been able to maintain a high degree of stability within the project. The figures in Table I give a breakdown of the year of hire for the 47 staff members.

Table I
Year of Hire for E-M Project Staff

Year of Hire	Number	%
1972	8	17
1973	11	23
1974	14	30
1975	6	13
1976	8	17
	----- 47	----- 100

As the figures indicate, approximately 40% of this staff has been involved in the E-M Project from the early stages, and 70% since 1974.

Another set of figures related to the stability of staff of the E-M Project is provided in Table II. This table provides a summary of all staff

hired by KEDI (again, excluding senior administrators and research professors) for the E-M Project since 1972. As the figures indicate, 81 staff members have been hired and of these, 61 still remain at KEDI. The 14 staff members still at KEDI but no longer assigned to the E-M Project should be expected in a growing and developing institute. The fact that KEDI has retained 75% of its E-M Project employees and that 77% of those retained are still involved in the E-M Project are positive signs of stability, flexibility, and mobility for staff.

Table 2

Employment Pattern for the Professional Staff of the E-M Project - 1977

Category	1972	1973	1974	1975	1976	Total
Number hired	11	23	31	8	8	81
Number leaving after 1 yr.		2	6			8
Number leaving after 2 yrs.	1	2	6			9
Number leaving after 3 yrs.		2				2
Number leaving after 4 yrs.		1				1
	----	----	----	----	----	----
Number remaining-1977	10	16	19	8	8	61

It is obvious that so far KEDI has been successful in recruiting, training, and retaining competent staff to carry out the demanding tasks of research, development, and demonstration of an innovation. In reviewing and comparing salaries of E-M staff members to comparable positions elsewhere in Korea, it is safe to say that it is not the salaries that hold the staff at KEDI. It appears that the leadership of the President and the senior administrators, the involvement in a conceptually sound innovation, and other less tangible factors are to be credited for this success to date.

IV. TEACHER EDUCATION

A. Introduction

With the continued progress of the Elementary-Middle School Development Project and the recognition of the vital role that teacher education/training must play in the development and inauguration of a new educational system for primary and middle schools, KEDI has intensified its efforts relative to (1) basic improvements in the current national system of teacher education, both pre-service and in-service, (2) expansion and improvement of in-service teacher training for teachers involved in the comprehensive demonstrations of the new educational system developed by KEDI, (3) planning for the national pre-service and in-service teacher training program that will be necessary when the new KEDI educational system is established on a nationwide basis.

In these efforts KEDI has utilized not only its own resources and expertise, but has called upon support and cooperation from a wide variety of other institutions and organizations: the Ministry of Education, universities, junior colleges of education, provincial and city boards of education, administrators and teachers in the demonstration and cooperating schools, and professional teacher organizations. As a result of such cooperative efforts under the direction of KEDI, major strides have been made relative to the role of teacher education in the diffusion and adoption of a new educational system for Korea.

B. Basic Studies in Teacher Education

Recognizing the need for basic studies relative to teacher education, KEDI staff have been involved in a series of research tasks aimed at identifying the knowledge and skills that elementary school teachers in Korea should possess. The study was carried out through an intensive review of current literature in the field of teacher education, a comprehensive review of the present curriculum for training elementary school teachers, and consultation/discussion sessions with professors of the junior teacher colleges and with master teachers of elementary schools.

Five task areas were chosen for the analysis of the professional functions and competence necessary in a qualified and competent teacher. These are:

1. Planning instruction
2. Directing teaching - learning
3. Evaluating student achievement and growth
4. Counseling and guidance
5. Research

The outcome of this study and others planned by KEDI are intended not only to provide important input into KEDI activities relating to the in-service training of teachers involved in the demonstration and cooperating schools, but also into those KEDI tasks related to the long-range responsibility of pre-service and in-service teacher education for the nationwide implementation of the KEDI educational system.

C. In-service Education for Demonstration School Staffs

In-service Education Plan

Until 1976, in-service education for researchers, principals, supervisors, and teachers in the demonstration schools involved an intensive 15 to 20 hour workshop conducted in a five-day period prior to the opening of school and followed by supervisory visits and conferences on the part of KEDI field staff throughout the year. Beginning in 1976, this program was expanded to one of 60 hours of duration with two intensive workshops of three to four days each, four field-based in-service sessions conducted by KEDI staff at the demonstration school sites, plus supervisory visits and conferences.

Other in-service training activities include (1) information and continuing interaction among demonstration school teachers, (2) formal meetings conducted by senior researchers for master teachers and staff at the demonstration school, (3) periodic meetings for master teachers from the demonstration schools at the KEDI headquarters. In addition, KEDI has given high priority to a careful and continuing observation of classroom teachers, the evaluation of student achievements and attitudes, and the involvement of parents and students in discussions and surveys of the new educational system. All of these are viewed as important in the development of information useful to the improvement of in-service teacher education.

Publications

In addition to the basic publications for general use in the classroom, such as teacher guides and student guides, KEDI has published for dissemination to members of the staff of the demonstration schools and cooperating schools as well as others, both a Newsletter and a Research Guide for Teachers. These publications, as well as others, are most useful to teachers, administrators, and supervisors involved in tryouts and demonstrations of the KEDI educational system.

Instructional Materials Development

A number of instructional materials have been developed to augment and improve the in-service teacher training program in demonstration and cooperating schools. Among these are the following:

1. Sixteen instructional modules for in-service teacher training were developed by KEDI staff with consultation and assistance from professors in higher education institutions. These modules are to be used in both demonstration and cooperating schools.

2. A total of 140 television programs for in-service teacher education had been produced by the summer of 1977 with 24 more to be completed. These programs are intended for use during the noon hour and are coordinated with printed materials made available to teachers. A questionnaire study will measure teacher perceptions of the effectiveness of the television training program. The programs were developed with the consultation and cooperation of professors who prepared the content and classroom teachers who participated in the demonstrations.

3. Progress has been made in the development of videotapes for in-service training. These videotape presentations provide actual demonstrations of planning, teaching, evaluation, and follow-up procedures utilized by teachers in the classroom.

4. Certain in-service institutes and demonstrations have been held. Two such institutes were conducted at two junior teacher colleges for college staff and for several hundred principals. Seventeen regional demonstrations were held for representatives from demonstration and cooperating schools, from teacher training colleges, and from the Ministry of Education. In addition, special lecture sessions were conducted at the National Institute for Educational Research and at the Seoul National University In-Service Education Institute.

Future Plans

Future plans call for the involvement of supervisory educational personnel from the provinces and the counties to serve as teacher trainers, visiting demonstration schools once or twice a month on a regular basis, and visiting more often in response to special problem needs. These supervisors will also have access to in-service videotapes for use locally with teacher groups. According to the plan, as the supervisors assume a greater role in teacher training, KEDI researchers will have greater opportunity to work with the content and the development of the system of teacher in-service education.

Another possible plan for the future involves the pairing of a KEDI researcher and a KEDI curriculum specialist for training sessions and school visitations. This has grown out of a recommendation made by teachers, supervisors, and KEDI staff.

Still another idea under consideration is the development of a training program for teacher trainers. With the growing complexity and urgency of in-service and pre-service teacher training activities, the inauguration of such a program would appear to be most important.

All of the above plans are contingent upon the needed financial support from provincial boards of education and/or the Ministry of Education.

Applications of In-Service Programs and Materials

Although the programs and materials, including television programs and videotapes described in this section have been initially developed for use in the training of teachers and other staff in the demonstration and cooperating schools, it is clear that they have a much broader application. Eventually, as changes are made in the pre-service program of teacher education, and as efforts are undertaken for a nationwide in-service teacher training program, much of what has been developed can be used or adapted for use in these more massive teacher education tasks.

D. Nationwide Pre-Service and In-Service Education

Seminar on Pre-Service Education

In recognition that pre-service education is a task of major proportions and of vital importance in the long-range operation of the new KEDI educational system, KEDI has intensified its efforts toward the identification of appropriate mechanisms for the planning and development of a new and improved pre-service education program for elementary teachers who will in the near future be involved in the implementation of that system.

In the spring of 1977, KEDI gave leadership to a seminar which focused on pre-service education. The seminar, which had participants not only from KEDI, but also from the junior teacher colleges, the Ministry of Education, and the Korean Federation of Education Associations, after extended discussions recommended that:

1. KEDI make a study of the curriculum of the junior teacher college system and that a revision of the curriculum be made on the basis of that study.
2. Teacher college professors spend time at KEDI in research training and research activity.
3. KEDI utilize junior teacher college elementary schools as demonstration schools for the new KEDI educational system.
4. The term of the junior teacher colleges be lengthened in order to improve the quality of elementary teacher education under a revised and improved curriculum.

5. The imminent nationwide implementation of the new educational system be reflected in the curriculum of the junior teacher colleges.

6. The Ministry of Education make an effort to reflect the concerns and recommendations from the seminar and from related research in its policy decisions relating to teacher education.

These recommendations, coming as they do from a broad professional constituency, give strong support to the role of KEDI in the improvement of teacher education.

The Role of KEDI in Pre-Service Education

There is developing in Korean educational circles a clear recognition of the leadership that KEDI has undertaken in relationship to the improvement of pre-service teacher education and of KEDI's important role in the years ahead.

The KEDI activities, programs, materials, and other resources that have been described in the discussion of basic teacher education studies and in-service teacher education developments already provide a firm base for the planning, development, and implementation of a new and improved program of pre-service elementary teacher education. This is a task to which KEDI can give direction and leadership. However, it is one that must involve the continuing participation of faculty from teacher preparation institutions, Ministry of Education personnel, staff from the provincial boards of education, the Korean Federation of Teacher Associations,

selected staff from a representative number of public and private schools, as well as other interested and competent individuals.

Further, it is important to recognize that perhaps the most important role that KEDI can assume in this task is one of planning, research, development, and monitoring of implementation activities. The actual implementation is obviously a massive task and one that will require the full resources of the Ministry of Education and the provincial boards of education. However, KEDI can be an invaluable resource to the efforts.

The Role of KEDI in In-Service Education

Parallel to the recognition and status that KEDI has achieved in pre-service teacher education has been a similar recognition and status as a leader in in-service teacher education.

The experience of KEDI over the last three years in developing and implementing an in-service education program for the teachers in the demonstration schools and cooperating schools has been unmatched in Korea. This experience, coupled with a significant production of print and non-print materials for use in in-service education programs -- guidebooks, journals, newsletters, instructional modules, television and radio programs, has given KEDI preeminent leadership.

However, as in pre-service education, it is important to recognize that the task of providing in-service training in the new educational system on an intensive and on a continuing basis to all the teachers of the elementary and middle schools in Korea is a task that will require

full mobilization of educational resources of the nation. Again, KEDI's role is viewed as one of planning, research, development, and monitoring while the major implementation will need to be undertaken by the Ministry of Education and provincial boards of education. However, the central role of KEDI in the process is unmistakable and clear.

E. Reactions from the Education Community

Demonstration and Cooperating Schools

The team members encountered considerable evidence of enthusiasm and interest among staff, students, and parents represented in the demonstration schools and cooperating schools. There is constant pressure from additional schools throughout the country to become cooperating schools and to be able to share in the benefits of the new educational system developed by KEDI. Principals and teachers expressed a feeling that involvement in the KEDI program and access to KEDI-produced materials are excellent training experiences for new teachers and a valuable supplement to their pre-service training.

However, in a cooperative spirit of free interchange of ideas that has been fostered by KEDI, administration and staff members from the field express a number of concerns. Among these are:

1. A need for additional in-service training with KEDI support and with involvement of local school system expertise.
2. Need for additional time to provide individualized assistance to underachievers -- a problem growing out of large class size and amount of content in student workbooks.

3. Official government policy that provides for transfer of teachers every four years thus creating problems of new untrained (in KEDI system) teachers each year.

4. Shortages of student workbooks that occur as new students are transferred into a school after initial distribution of materials to students.

5. Need for a new channel for IR broadcasts because of electrical interference from North Korea on the present channel.

However, it is clear that these concerns are relatively minor when contrasted to the enthusiastic acceptance of the new educational system and the confidence in its ability to provide an improved education to children. Nevertheless, it is important to note that KEDI regularly seeks from teachers and others information relating to problems encountered in the new educational system and is continuing to make efforts to overcome any difficulties that exist.

Korean Federation of Education Associations

KEDI has continued to receive strong interest and support from the Korean Federation of Education Associations. During the past year, the K.F.E.A. invited KEDI staff to appear on the program of their annual meeting and also heard reports on the KEDI experience from teachers in both demonstration and cooperating schools. Consultation by K.F.E.A. representatives with KEDI staff resulted in a revision of the radio broadcast schedule and action to more closely tie the curriculum to KEDI materials.

K.F.E.A. officers and members continue to reiterate their confidence in the KEDI educational system and suggest continuing relationships in the form of consultation, conference, participation and other joint activities.

National Institute of Education

The National Institute of Education and its Department of In-Service Training, presently is deeply involved in the training of administrators and teachers for the New Community Movement. However, the N.I.E. has expressed a desire to work with KEDI and possibly become involved in in-service training for teachers in the demonstration and cooperating schools. This points to an area that KEDI may well want to explore further in order to assemble a pool of talent and resources for the massive task of in-service education on a nationwide basis.

F. Priority Tasks

KEDI is approaching the time when the research efforts, small scale tryouts, and comprehensive demonstrations of the new educational systems for the elementary schools are reaching completion and the task of national diffusion and implementation must be faced. This means that KEDI must intensify its efforts in the planning and development of a program of nationwide pre-service and in-service teacher education focused on the needs and demands of the KEDI system.

Already KEDI has made considerable progress toward the achievement of this responsibility as evidenced by the descriptions of activity, materials development, and achievement earlier in this chapter. However,

continuing success will require the following:

1. Joint planning with the Ministry of Education for nationwide inauguration of new pre-service and in-service teacher education programs.
2. Completion of cooperative efforts with the junior colleges of education for a reform of teacher education curricula, and a focus on the needs implied by the KEDI educational system.
3. Completion of a national plan of in-service teacher education that will involve the Ministry of Education, provincial boards of education, junior teacher colleges, university colleges of education, and other resources.
4. Development of a plan and a program for the training of teacher trainers -- an essential element in the massive undertaking of retraining all teachers in the elementary schools.
5. Development of a capacity for the utilization of both television and radio in teacher education, both pre-service and in-service.
6. Continued development of instructional materials such as text materials, instructional modules, television and radio programs, video-tapes, and others that will be essential for such a national effort.

As indicated, KEDI has already made considerable progress in this area of responsibility. However, the immensity of the task and the urgency with which it must be completed, point to the need for a continuance of the cooperative relationships already established with many areas of the education community as well as for an expanded enlistment of qualified individuals to participate in the completion of the task.

V. EDUCATIONAL BROADCASTING

A. Introduction

The reorganized Department of Educational Broadcasting is established with five sections: (1) Broadcast Council, (2) Program Planning, (3) TV Production, (4) Radio Production, (5) Engineering. Each section is administered and coordinated by a "chief" or "director" of the section. There are 126 regular fulltime employees in the Educational Broadcasting Department with an additional 23 part-time employees serving for special purposes in radio and television production.

The role/function of the Broadcast Council is to review and evaluate instructional television, (ITV) and instructional radio (IR) programs prior to their being aired. In addition, the Broadcast Council establishes criteria for production and broadcast quality, conducts research related to ITV and IR effect on learning, and solicits feedback from users.

The Program Planning section is responsible for the overall coordination of planning and production of programs within the broadcast department and for the broadcast schedule.

The role and function of the TV Production section is to produce high quality TV programs in relation to KEDI's various programs such as the E-M Project, teacher training activities, and others.

The Radio Production section is responsible for producing high quality radio programs for KEDI's various programs such as the E-M Project and the Air and Correspondence High School.

The Engineering Section is responsible for the maintenance and operation of the broadcast studio facilities as well as developmental planning in relation to the electronic and equipment needs of KEDI.

Because of the continuing technical difficulties with the T-COM transmission system, KEDI was not able to implement its educational broadcasting program according to its original plan. However, even without a functioning transmission system, KEDI has continued to produce ITV and IR programs.

At this point in time the number of produced ITV programs is 1,148 with less than 60 having been aired. Those that have been aired, were aired via a Videotape Recorder and TV monitor in a Closed Circuit TV arrangement. KEDI's IR programs have been broadcast over KBS/MBC/CBS facilities through a cooperative agreement negotiated between KEDI and these agencies.

The lack of a viable transmission facility has precluded KEDI's full testing of ITV and IR in the E-M Project as well as various other projects envisioned by KEDI in its effort to reform education. Only a very small portion of the total amount of ITV and IR programs have been used. Because of this, the KEDI instructional model has operated under handicaps and has not had an adequate opportunity to demonstrate its full worth during the research and development stage and the implementation phase of the E-M Project. This deficiency could produce a basic change in the original concept of KEDI's instructional model for educational reform. Losing a large portion of an instructional model, even for a temporary period, that was originally envisioned to play a major role

and function in that model may bring about considerable and basic changes in the model.

If the original goal of educational reform planned and established by KEDI for Korea is to be tested, an alternative to the T-COM broadcast and transmission system is necessary. ITV and IR programs were originally planned as a major component of the educational reform effort that, due to the transmission problems mentioned, has not been available for that purpose.

During this time KEDI is continuing to define the role of television and radio utilization. Three roles have been identified: (1) instructional television and instructional radio, (2) curriculum related television and radio, and (3) general educational television and radio. Of the three roles or a combination thereof, the one that will emerge is not known at this time. Perhaps more extensive experience after the transmission difficulties are resolved will provide a basis for the decision.

Instructional Television and Radio programs are designed and produced specifically to fit the KEDI model of instruction for the elementary and middle schools. These programs are integral parts of a larger instructional unit or lesson plan designed by KEDI for the E-M Project. They are to be broadcast on a pre-set schedule to specific points in the lesson plan throughout the course of the semester.

Curriculum Related Television and Radio programs are designed and produced in relation to the school curriculum in general and are not scheduled to occur at a particular point in time or at a specific grade level. These programs are indirectly related to the KEDI instructional model of this E-M Project.

The General Educational Television and Radio programs are those that have applicability to the Korean population at large. They are not designed according to the KEDI instructional model or the E-M Project, neither do they relate directly to the school curriculum or a particular grade level. They are produced and designed generally for the adult population, but are often useful for the school age population as well.

The yearly production schedule, January 1, 1977 - December 30, 1977, called for 1,140 TV programs and 3,360 radio programs to be produced. At the end of 1977 this goal had been met and a grand total of 5,119 TV and 3,949 radio programs had been completed.

B. ITV and IR in the E-M Project

The full implementation of KEDI's instructional model is to follow a research and development design that calls for a step-by-step development through small scale tryouts and comprehensive demonstrations. There were four small scale tryouts between May 1973 and July 1975, each lasting from 5 - 8 weeks. The results of the first three small scale tryouts were reported in the First Interim Report. The Second Interim Report presented results from the fourth small scale tryout and preliminary data on the first and second large scale demonstrations.

This current report presents additional educational broadcast information on the first and second large scale demonstrations, the third large scale demonstration and the first small scale tryout of the E-M Project in a middle school.

First Large Scale Demonstration

The first large scale demonstration occurred throughout the second semester of the 1975 school year. Over 50,000 third and fifth grade students in 139 schools participated. Fourteen of the schools were utilized as research schools in order to test the effectiveness of the new instructional model. The differences in academic achievement levels of the students were in favor of KEDI's instructional model.

Due to transmission difficulties with the T-COM system no ITV or IR programs were used.

Second Comprehensive Demonstration

The second comprehensive demonstration occurred from March 1976 to February 1977. This demonstration involved approximately 100,000 students in grades 3, 4, and 5 (grade 4 was a new addition) in 161 schools. The students in the KEDI experimental schools showed higher scholastic achievements than those that were not in KEDI schools.

Due to technical difficulties with the T-COM broadcast system, no ITV was utilized in the second comprehensive demonstration. The IR programs were broadcast via KBS facilities. The IR programs presented

lessons in all subject matter content areas for students in grades 3, 4, and 5. No research results on the effect of the IR programs are available.

Third Comprehensive Demonstration

The third comprehensive demonstration (March 1, 1977 - February 28, 1978) was being conducted at the time of the team visit. There are 16 demonstration and 179 cooperating schools participating in the demonstration with approximately 179,764 students in grades 3, 4, 5 and 6. This third comprehensive demonstration was enlarged to include grade 6.

IR programs broadcast via KBS facilities present lessons in each subject matter content area at each grade level. Due to the continuing technical difficulties with the T-COM system no ITV program broadcasts were planned. However, one school with a closed circuit TV capacity has been selected to utilize ITV lessons. Results of this effort will be reported upon completion of the demonstration in 1978.

First Small Scale Tryout in a Middle School

The main purpose of this small scale tryout conducted during September and October of 1976 was to determine the effectiveness of KEDI's new instructional system in the middle school. One of the specific concerns was KEDI's instructional materials, part of which are radio and television programs for the middle school.

For this tryout the first year students in two middle schools were used. One public school (Shin Cheun) was in Seoul, and the other, a public girls school (Sang Inchun) was in Gynaggi-Do. The tryout involved 1,770 students in 26 classes of English and Science.

The experimental design of testing the KEDI model called for an experimental group and a control group. The experimental group was given a pre-test, the experimental treatment, and a post-test. The control group was given the pre-test and was taught by the previously existing and continuing system.

English and Science were the subjects taught via television and radio with eight of the 26 classes receiving TV and IR lessons. These eight classes studied four ITV lessons and two lessons in English; two ITV lessons and one IR lesson in Science. The school in Seoul had color TV programs while the school in Gynaggi-Do had black and white TV programs.

The experimental treatment was to test the effectiveness of the KEDI print and non-print instructional materials. Therefore, one group was given printed materials with ITV and IR and another group was given only printed materials. These two groups were then compared with equivalent groups in other schools without the KEDI materials.

Results show that the higher achievement scores were obtained by the students in the KEDI schools. Within the KEDI schools, higher achievement scores were obtained by students taught by ITV and IR. The ITV and IR programs were particularly significant in the listening scores in English.

C. Instructional Television and Instructional Radio in Special Programs

Air and Correspondence High Schools

Under a contract project arrangement with the Ministry of Education, KEDI continues its direct involvement with the Air and Correspondence High School (ACHS). This involvement includes the administration, supervision, and evaluation of the ACHS project, as well as the preparation of the broadcast and supplementary materials for the various subject matter content areas in the ACHS program.

Currently the following subjects are available for high school students via ACHS -- national ethics, Korean language, mathematics, English, German, science, music, fine arts, physical education, geography, politics and economics, national history, world history, biology, general industry, general technology, Chinese language, and communication studies.

Because of the continuing transmission problems of the T-COM system, KEDI currently uses KBS, CBS, and MBC for transmission of its IR programs. The broadcast schedule follows on the next page.

Grade Level	Region	Subjects	Time	Studio
High School grade I	All Korea	A11	5-5:30 AM	MBC
High School grade II	Seoul & vicinity	A11	10-10:30 PM	KBS
	Taegu, Kueng Joo, Pusan, Chun Joo	A11	11-11:30 PM	CBS
	Choon Chun and 8 other cities	A11	5:30-6 AM	MBC
High School grade III	Seoul & vicinity	A11	10:30-11 PM	KBS
	Chun Joo Kueng Joo	A11	5:30-6 AM	CBS
	Taegu, Pusan	A11	6-6:30 AM	CBS
	Choon Chun and 8 other cities	A11	12-12:30 AM	MBC

There are 40 school centers designated by KEDI in the ACHS system. Of these 40 school centers, 35 now have all three high school grade levels offered and the remaining five school centers have high school grades one and two only. It is anticipated that these five centers will add high school grade three by next year.

There are approximately 22,000 students currently enrolled in the ACHS throughout the Republic of Korea. Beginning in 1975, students were accepted into the ACHS program from throughout Korea and not just the Seoul and Pusan areas as had been done previously. Of the nearly 5,000 students registered four years ago in the Seoul and Pusan area, 2,900 graduated in 1976.

The budget for the ACHS as established by the MOE is six hundred million won annually. Approximately one-half of this amount goes to KEDI and one-half to the various school centers. This budget pays for broadcast time (approximately 2,000,000,000 won), teachers at the rate of W 1,000 per hour to lecture, grade papers, and administer examinations. The rate of pay for teachers was expected to be 1,500 won per hour by September 1977.

A profile of the student population indicates that approximately 70 percent of the enrollees are working full or part-time. They range in age from 16 to over 50, and pay tuition which varies in amount based on region. For example, in Seoul, the tuition is 30,000 won per year, while in the smaller provinces and countryside, the tuition may be as little as 15,000 won per year. Approximately 20 percent of the students currently enrolled in the ACHS are recent middle school graduates. The attrition rate in the ACHS remains at approximately 25 - 30 percent.

The relatively undesirable broadcast times may contribute to the attrition rate. As noted in the broadcast schedule, programs are typically very early in the morning, i.e., 5 - 6:30 and late in the evening, i.e., 10 - 12:30.

Recent studies comparing students in ACHS with students in the regular high schools indicate that the student scholastic achievement level of students in ACHS is much lower (by almost 30 points as determined by a basic scholastic achievement test constructed by KEDI)

than that of the regular high school students. This is especially true in English, mathematics, and Korean language. These results are based on a sampling of 3,717 first year high school students in both the ACHS and the regular high schools, and are reported in The Prerequisite Capabilities of the First Grade Students of The Air and Correspondence High School, December 1976, published by KEDI.

In addition to the above report, KEDI has published A Survey on the Actual Condition of the Air and Correspondence High School, Report #37, December 1976. This report, available currently in Korean language, provides information on the status and problems of air and correspondence education in four other countries (New Zealand, England, United States, Japan) and further reports the results of a similar survey on the Korean ACHS.

Publications of KEDI's ACHS program include textbooks (62 volumes with each grade level and every subject matter content area presented), a handbook on radio instructional programs for first semester (32,000 copies), and second semester, (24,000 copies). Also a guidebook (32,000 copies), designed for self-study to help students utilize the radio programs effectively, has been designed and produced.

Some of the problems KEDI is experiencing with ACHS are as follows:

1. Work loads of teachers are excessive, and the pay is disproportionately low.
2. The academic background and preparation of most students is inadequate to follow the subject matter content via radio.

3. Due to the wide range of individual differences, teachers have difficulty dealing with the large numbers of students coming to the centers twice a month.
4. There is no rebroadcasting of radio programs. Consequently a student having missed a program has no chance of hearing it at another time.

During future considerations, KEDI may give attention and emphasis to vocational and technical education via the ACHS programs. Currently, there appears to be little or no effort being made in this area. It seems to be a service needed as students prepare themselves for future employment.

In-Service Teacher Education

As attempts continue to overcome the technical difficulties with the T-COM transmission system, KEDI has continued to produce television and radio programs for in-service teacher education. While a number of TV programs designed for in-service teacher education have been produced to date, their relative effectiveness has not been established because of the transmission problems. Of particular note is a program entitled, An Introduction to Educational Technology.

Social Education

Due to the transmission problems very little has been done since the Second Interim Report in the broad and general areas of social education. KEDI continues to develop and record television and radio

programs in the area, but until a viable transmission system is established, little can be accomplished. This general area is perhaps one of the areas in which television and radio will have its greatest impact in Korea.

Sinahn County Broadcasting System

The Sinahn County Broadcasting System continues to broadcast KEDI developed radio programs to the inhabited islands off the coast of South Korea. When the KEDI broadcast and transmission system is fully established, this role is expected to expand.

D. The Construction of a Land Based Transmission System

It appeared in July, 1977, that a decision was imminent for KEDI to develop and install a land based transmission system to replace T-COM. With the implementation of this system, several factors need to be considered if the system is to function at its full potential.

KEDI's program of in-service education for the preparation of teachers to make maximum use of educational television and radio will need to be expanded. Teacher resources and lesson plans to date have had portions of subject content that were to be available via TV and radio. Since TV and radio were not available for this purpose, teachers have presented the content in alternative ways. This in turn may have produced a situation wherein the role of TV and radio is seen as non-essential. The teacher role in relation to the utilization of TV and

radio will need to be thoroughly examined by KEDI and an extensive in-service education effort developed.

Research on the effectiveness of TV and radio will need to be conducted. Also, a decision-making procedure needs to be established to determine what programs should/should not be broadcast.

The maintenance and repair of the land based system will soon be of concern to KEDI. Will KEDI have a roving repair and maintenance squad? An on-site repair and maintenance crew? A system of geographic regions or districts throughout the country, each with its own staff? Or, can repair and maintenance services be contracted for with a repair and maintenance business concern? Could such a system of maintenance and repair also include servicing the color TV sets and the radios in the school classroom?

Concerns that have been presented in the previous interim reports are briefly repeated here for emphasis. For fuller explanation, see the First Interim Report and Second Interim Report.

1. A role definition for TV and radio in the E-M Project and other KEDI Projects will need development: Instructional TV and Radio, Curriculum Related TV and Radio, General Education TV and Radio.
2. On-site origination of program production may need to be provided.
3. Animation, graphics, and photographic production services will likely have to expand in order to meet the need for the increase in the volume of programs produced.
4. Script writing procedures will most likely need to be streamlined. Procedures for determining what media will be used to do what jobs will need to be established and implemented.

5. Budgeting procedures for determining the cost of TV and radio programs is needed for a variety of internal and external reasons.
6. Provisions for program rehearsals outside the studio are needed.
7. Individual differences in student learning abilities, backgrounds, achievement levels and in school class schedules must be attended to by KEDI if nationwide TV and radio broadcasts are to be successful.
8. Additional levels of appropriate hands-on experience for KEDI's Program Production staff will become essential as the full time broadcasts grow and develop due to the implementation of the land based system.

E. Comment

As KEDI's role expands and as television and radio take their proper place in KEDI instructional system, several issues will need to be investigated. In an effort to assist this effort, the following items are offered:

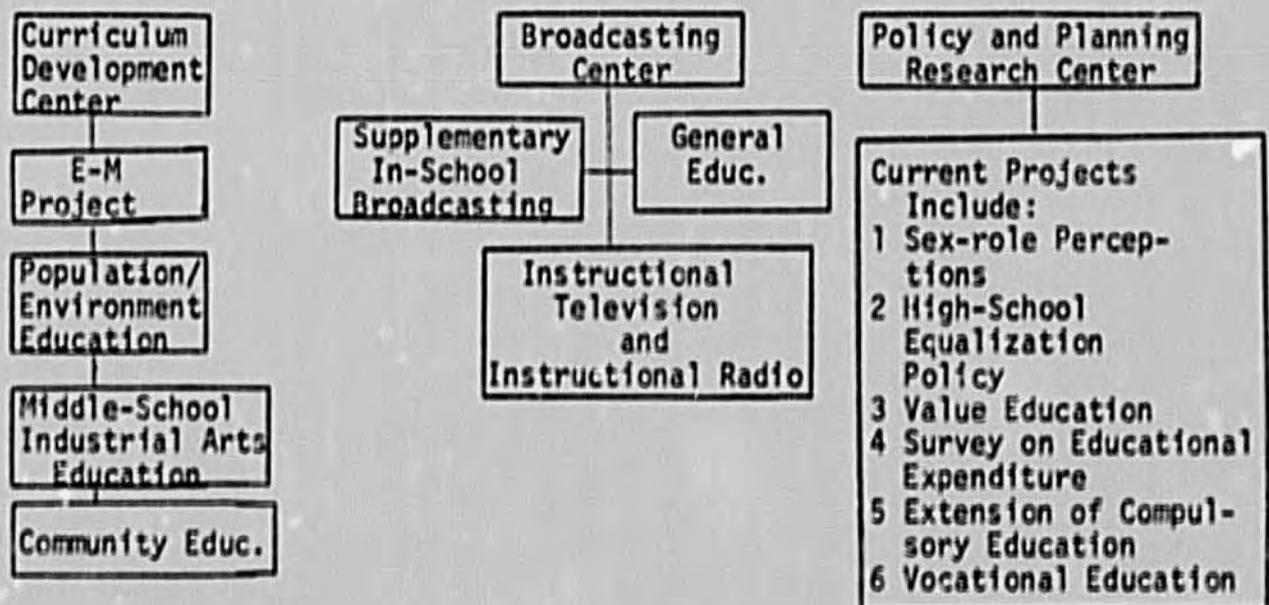
1. The ability of TV and radio to respond to individual differences will need to be ascertained. This will pertain to schools and their schedules as well as students and their abilities.
2. Serious consideration should be given to full scale research into the effectiveness of television and radio in Korean education.
3. Continued attention to solving the problem of on-site production and origination of programs is recommended.
4. The appropriate role of television and radio in Korean education will need continued study. Currently three roles appear to be emerging -- instructional television and radio, curriculum related television and radio, general educational television and radio. Perhaps a combination of the above will also emerge.

VI. THE EXPANDING ROLE OF KEDI

A. Introduction

In previous interim reports, it has been noted that KEDI's major programmatic activity has been the Elementary-Middle School Project, and that other policy, planning, and curriculum development work has been done on a project-by-project basis. Events during the past year, however, have led to KEDI's having been designated as the curriculum development and textbook compilation center for the Ministry of Education, thus subsuming the E-M Project and all other curriculum projects under a recognized, ongoing curriculum development program.

Although the details of a reorganization to reflect this change in function were not available in the summer of 1977, the general idea will be to structure KEDI educational responsibilities in three units as follows:



The new structure thus combines all elements of previous projects which had to do with curriculum development into the new Center for Curriculum Development; combines all policy and planning projects into one unit; and recognizes that the broadcast unit will have programmatic functions not only related to the E-M Project but related to the dissemination of general education material, supplemental material for classrooms, and curriculum material at all levels.

As in previous reports, this chapter concentrates on policy and planning aspects of KEDI's program. Included is a status report on certain curriculum areas (population and environmental education, middle-school industrial arts, and community education) which, in the future, will be subsumed under the Curriculum Development Center, along with the E-M Project. This chapter also discusses KEDI's continuing relationships with organizations outside Korea and internal relationships within Korea related to policy and planning (Internal relationships within Korea affecting the E-M Project are discussed in early chapters.).

B. Policy and Planning

KEDI is increasingly recognized as an organization equipped to create public confidence in education through its program of policy studies. It performs this function through a series of studies on critical educational problems, studies which involve a broad spectrum of leaders throughout the Korean community.

For instance, the ruling Congress Party is currently developing guidelines for a long-term fifteen-year Korean development plan. The Party has requested KEDI to draft the education sector plan. At the same time, the Korean Development Institute has consulted KEDI for help in developing the education sector portion of the fifteen-year plan draft being developed by that organization. Thus, KEDI at one and the same time is helping the legislative body and the executive branch of government in the design of the long-range educational plan for the country.

These long-range activities, in turn, build on a variety of studies in specific problem areas. The study of the increasing numbers of repeaters taking the university entrance examination, for instance, was undertaken with broad participation of community, government, and academic communities, and recommended an extensive list of reforms at the secondary and university level. A number of these recommendations will appear in the fifteen-year plan and will likely be supported by the public because of the broad participation in the study. (See the Second Interim Report for details of the Repeater Study, and a brief section below on the aftermath of the study.)

Specific educational policy and planning studies are undertaken by KEDI both at the organization's own initiative and at the initiative of the Ministry of Education and other government and legislative units. International financing is used when the Ministry of Education is agreeable and, of course, when such funds are available. Examples include

the Sex Roles study (U.S. Agency for International Development); Population Education study (United Nations Fund for Population Activities), and the Vocational Education studies (funds were initially requested from the United Nations Development Program, although the proposal was ultimately rejected by the Ministry of Education).

Of the current projects discussed below, three were undertaken at the initiative of groups other than KEDI (Sex Roles; Extension of Compulsory Education, and High-School Equalization Policy), while three were undertaken at KEDI's initiative (Survey of Educational Expenditure; Value Education, and Vocational Education). Needless to say, the projects which are proposed by others and which KEDI accepts generally bring funds with them. Projects initiated by KEDI must be supported from KEDI's budget. So far, the government provides limited non-earmarked funds for KEDI-initiated policy studies. Thus, these studies tend to be underfinanced.

Even those studies initiated at the government request often bring less funds with them than are needed for adequate conduct of the project. There is a tendency for those in government to feel that KEDI can absorb some of the costs of such studies. There would appear to be a need to negotiate with the government some continued programmatic support for educational policy and planning studies so as to avoid the need for the diversion of resources to support these activities within KEDI.

Of the moment, the lion's share of KEDI's resources are allocated to the broadcasting activities. Less than half of the broadcasting budget

(perhaps as little as 25%, according to how costs are allocated) is provided for all of KEDI's policy, planning, and curriculum development work. With the restructuring of KEDI during the coming year, it is assumed that some of these imbalances will be corrected.

The Repeaters Study

The so-called "Repeaters Study" is not, technically, a current project. It was completed in 1976 and is described in our last report. It made a number of comprehensive recommendations for dealing with the problem of the ever-increasing numbers of those repeating the university entrance examinations. However, because of the importance of the project, it was extended to 1977.

Even before the recommendations had been officially adopted by the government, there were a number of suggestions in the report that influenced government policy. For instance, the number of additional spaces to be added in universities during the current plan period has been upped from 2,300 to 5,000. The secondary and university entrance examination systems are undergoing changes, and the university will give weight in the future to recommendations of the high schools as well as to the scores on the entrance examinations. Those who take the university entrance examination more than three times will be discouraged from further attempts.

Public support for the recommendations of the study is evidenced by a clear recent trend among employers who are increasingly hiring high-school

graduates to fill posts available until recently only to those with more advanced qualifications. If this trend becomes marked, it will, of course, ease the problem of unemployed high-school graduates, but it may only postpone the problem by deferring it to the level of university graduates unless the current pattern of economic growth that creates more professional job opportunities is continued.

Simulation model approaches also will be used to examine the possible effects of other possible policy decisions in order to help establish appropriate compromises between policy based on manpower estimates versus that based on aspirations of parents and students. For instance, what would happen if admission to junior technical colleges were limited to those passing the university entrance examination? What might happen if different kinds of incentives were offered students in junior technical colleges?

On July 21, 1977, the policy recommendations developed by KEDI were officially reported to the executive branch of the national government. Following extensive discussions and study, appropriate revisions were made reflecting the viewpoints of implementing agencies, such as the Ministry of Education and others. Following the adoption of policy guidelines by the government, a task force was established in the Ministry of Education with the responsibility of carrying out the tasks required for complete implementation.

Survey on Educational Expenditure

A number of KEDI studies have suffered because of lack of good educational cost data by region, type of school, and sponsorship of school (public or private). A study of such costs is now underway at KEDI. This is an in-house initiated study, without outside sponsorship, although the data generated will be useful in a number of other studies which do have outside sponsorship.

The study was begun in the summer of 1977 and will:

1. Examine annual investment in education, both public and private, and by level and region;
2. Examine any apparent relationships between investment and academic achievement;
3. Identify cost differentials by level, school, and region;
4. Project educational expenditure for the next five-year period, both public and private (1978 - 1982).

Investment in education is defined to include all institutional costs plus all costs to the parents and to the pupils. Included at upper levels will be "opportunity costs," in essence, the wages that students might have earned had they not been studying.

Information will be collected from some 21,000 students enrolled in private schools and their parents by means of a log book questionnaire sent out in mid-1977 and to be filled out at mid-term, at the end of the term, during vacation period, and at the beginning of the next school year. Students at each school level will be included. In addition, data from public schools will be gleaned from government documents supplemented by interviews with school principals, school boards.

Data from the study will be useful in examining equality of educational opportunity in Korea. They will also be valuable in simulation studies when the cost of various alternative futures is being assessed. The data should also be helpful in estimating the social and private marginal rates of return by school level on the basis of available data on average wages of school leavers.

This is the kind of study the team has suggested in previous reports as needed in order for KEDI to establish a data base on which to build other policy and planning studies.

Extension of Compulsory Education

Government policy is to gradually introduce compulsory middle school education during the remainder of the current five-year plan (1977-1981) and during the next five-year plan (1982-1986). By 1986 it is assumed compulsory middle school education will be a fact.

KEDI has been asked by the Ministry of Education to undertake a two-part study to guide in the implementation of the new middle school policy. The first part of the study will be to identify what must be done during the current five-year plan to lay the groundwork for the implementation of the new policy. The second part of the study will detail the specific measures necessary during the next five-year plan (beginning in 1982) in order to extend compulsory middle school education throughout the country by 1986. Other studies, such as the cost study described above, and the equalization study, described below, will feed useful data into this study.

A part of the study will be to undertake international comparisons, examining the situation in other countries comparable to Korea. Recommendations are expected to take into account experience elsewhere but will recommend steps which are appropriate in the cultural and economic context of Korea.

Vocational Education

KEDI's middle school vocational arts project, described in previous reports, was designed to improve the pre-vocational curriculum at the middle school level for both boys and girls. Demonstration teaching modules were prepared and tested. A portion of the project also included the goal of establishing shops in middle schools for pre-vocational skills training.

The most recent project activity was a seminar on May 20-21, 1977, to explore innovative industrial arts approaches at the middle school level. Included were specialists in industrial arts education, vocational education, home economics, general education, curriculum and industrial arts, as well as a number of laymen and KEDI specialists. This seminar and future seminars will lay groundwork for the time when the government will give high priority to industrial arts training at the middle school level. Of the moment, it appears that government policy is to strengthen secondary vocational education, without diverting funds needed at this level to the middle school.

In the meantime, KEDI is testing its middle school materials in two schools, and the Economic Planning Board has given encouragement for possible mass introduction of the new materials at some time in the future.

Because of the government's policy emphasis on secondary vocational education, KEDI is now turning its attention to policy studies in this area. Just beginning are the following studies:

1. Analysis of Employment Behavior of the Graduates of Vocational Schools. This will be a kind of tracer study designed to find out what happens to graduates of vocational schools. The first stages of the study will analyze the kinds of employment offered graduates and the numbers who continue to university and will interview such graduates to find out what they think has been good or bad in their training. For example, as noted in previous reports, many employers prefer graduates of middle schools plus Labor Institute training over graduates of secondary vocational schools. Also, many employers take general secondary school graduates and give them on-the-job vocational training (all businesses with over 300 employees must maintain training facilities). For certain kinds of technicians employed by such large industries, expensive technical high schools may not be needed. It might be cheaper and more efficient to introduce pre-vocational programs in all general secondary schools, with the idea that industry will then provide the specific skills through its own training. KEDI should examine such questions, through employer interviews.

2. Analysis of Labor Force Supply and Demand. This study will review the manpower estimates as they appear in the current fourth five-year development plan and examine the capacity of the present vocational high school

system to fill the demand. Again, we assume that KEDI is aware that middle level technical manpower is generated from several sources, and that vocational high schools will never be the sole source. However, the government wishes to dramatically expand national technical high schools from the eleven now in existence to seventy by 1980. Ten are being added in 1978. It is, of course, quite appropriate for KEDI to examine the implications of such expansion.

3. Cost-Effectiveness Analysis of Vocational High Schools. KEDI intends to compare the costs of vocational high school education with the employment behavior and wages of vocational high school graduates. This approach, of course, is based on rate-of-return analysis which assumes a free labor market which reacts freely to supply and demand. In Korea (as in all countries) government salary scales and other regulations often artificially set wage scales by type of job or level of education received, regardless of the supply of labor at that level. Such artificial pegging of salary and wage levels makes any attempt to assess productivity of labor, through studies of wages paid, very tenuous.

KEDI indicates that it will compare the wages paid graduates of middle schools who have Labor Institute training and graduates of general high schools who have in-plant training with those of graduates of vocational high schools with similar jobs. This kind of analysis will provide useful additional information for those charged with vocational education policy in Korea. It will also link with the study on educational expenditure, described earlier, and other studies on the equalization of educational

opportunity. As noted above, however, the fact that vocational high school graduates are paid more than Labor Institute graduates should not be interpreted to mean that these graduates are, in fact, more productive. Salary scales are traditionally higher for high school graduates than for those without a high school diploma, regardless of the productivity of the employee. This fact is dramatically illustrated by a 1977 survey of the Office of Labor Affairs which showed that blue-collar workers averaged 51% less in wages than white-collar workers. By any measure of productivity, it would be difficult to prove that white-collar workers are twice as productive as blue-collar workers. Norms other than productivity and scarcity of candidates are used in setting such salary and wage scales.

Nonetheless, the above studies will begin to build a data base useful in future policy and planning studies in the area of vocational and technical education. KEDI appears to be working closely with other concerned units of the government in undertaking these studies, including the Office of Labor Affairs, the Korean Development Institute, and the Economic Planning Board.

High School Equalization Policy

In 1974, high school entrance examinations, through which students would compete for the school they wished to enter, were abolished. This policy applied equally to public and private schools, and even the private

schools lost their ability to select their students. All secondary school applicants are now assigned on a more or less random basis to available places in the public and private high schools of their regions, and the individual schools are further restricted from any ability grouping of students within the schools.

This policy has caused considerable controversy. Those in favor of the policy feel that it has equalized secondary school opportunity for all children by randomizing the high school population in each region and within each school. Those against the policy feel that it has lowered the quality of Korean secondary education to the lowest common denominator. Private schools have been the hardest hit since the new policy was accompanied by a second policy which prohibited private schools from charging more than the fees charged by public schools. Many of these private schools have made the case that they cannot maintain quality of education under these conditions unless they receive government subsidies. Fees charged at public schools, of course, do not cover all salaries and operational expenses, much of which is paid by the government.

KEDI is beginning a study of the complex issues involved in the above controversy. Survey research will be undertaken in five cities in an attempt to assess the impact of the new policy on academic achievement in the schools of those cities. Excluding the financial issues mentioned above, the substantive issue is clearly whether Korean

high schools should group students by ability or whether they should follow the current policy of heterogeneous, random placement policy.

Obviously, the KEDI studies will not resolve the issue, but will provide information to help in making further policy decisions. For instance, it may be found that achievement of students with lesser abilities is improved under the current policy, but that achievement of the brighter children has been somewhat slowed. If so, the government will have to decide whether the acceleration of the slow achievers is worth the dampening effect on the high achievers. Furthermore, if such short term trends are noted, one might speculate that these effects might not endure over longer periods of time. Thus, further longitudinal studies might be needed.

Again, KEDI has entered a highly controversial field where public support and confidence is essential. As data from these studies are analyzed, it is assumed that KEDI will convene a broad spectrum of community, government, and business leaders to discuss their implications.

Value Education

In late 1976 and early 1977, KEDI completed two studies having to do with student attitudes. One was a study of students' attitude toward the national referents, and the other was a study on the principles of attitude change.

The study of attitudes toward the national referents explored the attitudes of elementary and secondary school students toward the government,

national symbols, the Korean people, the native soil, ancestors, the national future, and patriotism. Degrees of egalitarianism and altruism were explored; attitudes assessed toward duties of tax payment and national economic development, government personnel in general, soldiers, judicial officers, assemblymen. Further explored were attitudes toward the flag, the national flower, and the national anthem.

Nearly two thousand students from elementary school to university were surveyed in the study. Generally speaking, student attitudes toward the national referents were positive. However, the higher the school level, the lower the attitude scores related to virtually every referent. Furthermore, rural students generally had more positive attitudes than the urban students.

The study concluded with recommendations which suggested that:

1. Content in the national curriculum related to the national referents be increased.
2. Various social organizations and their programs be examined to see if their influence is positive and to find ways in which their influence can be coordinated toward improving attitudes toward the national referents.
3. Educational materials be prepared which stress attitude change and which encourage the use of intensive and active methods related to the national referents.

This and the second more theoretical study on attitude change have led to a new project on value education. This study will review the

literature on value education and will suggest ways in which values can be taught in schools. Experimental teaching materials will be developed and tried out in schools. Based on these preliminary studies, further recommendations will be made.

KEDI is undoubtedly entering into an important area with these studies. However, the studies to date seem to make a somewhat naive assumption that attitudes can be taught much as math or biology or history. If attitudes toward the national referents are poor, put more about the national referents in the curriculum. If social organizations do not reinforce positive attitudes toward the government, tell them to do so. If the students do not have proper values, however defined, develop some teaching materials to teach values.

Attitudes are the product of a total family, school, community and nationwide environment. They are the product of the entire curriculum insofar as the school is concerned, and not of some units called value units or attitude units. KEDI studies seem, so far, to be only scratching the surface of this interesting and often elusive problem.

As a KEDI-initiated program of studies, value education suffers from a lack of resources. Only one researcher is assigned the area, and this researcher has limited resources available to tackle a very complex research problem.

Sex Role Perceptions

With Agency for International Development support, KEDI has initiated studies of sex role perception in Korea. The explicit purpose of these studies is to explore a significant indicator of modernity, mainly the role of women in society and the perception of society as to the proper role of women. Based on these studies, KEDI will prepare pilot educational materials designed to change sex-biased attitudes.

Completed during late 1976 and early 1977 was a major survey of the role of women in various occupations in Korea, the mode of distribution of family income, of educational opportunity, and the degree of involvement of the two sexes in education, religion, politics, labor unions, clubs, and other community institutions. Furthermore, Koreans' perception of sex-related role behavior was studied (personality traits, occupational perception, and ability attitude) and their attitudes were related to modernity of the total and sub-populations studied in the survey (as measured by a modernity scale based on studies of modernity in the scholarly literature).

The study found that Koreans tend to be home bound, regardless of sex, and the degree of involvement in various kinds of organizations is low. Men tend, however, to be more active in political and labor union activities while women tend to be more active in religious and educational institutions.

Both men and women have sex-biased attitudes in Korea. One's level of education, occupation, and degree of industrialization of the community

affects the degree of bias. Some rural and urban differences were significant. Differing dimensions of modernity were strong in each area, with high liberal attitudes in urban areas and high sharing among men and women of decision authority in rural areas.

KEDI is currently completing a small scale pre- and post-test of 10 lesson units for middle schools, combining the content of industrial arts and home economics programs. The new units are designed to change sex-biased attitudes by teaching both boys and girls the basics of both home economics and industrial arts. Preliminary reactions to the units by both parents and teachers is good. The new units are tentatively titled: "Learning the Basics in Life."

KEDI has tackled an important area with a sophisticated study design based on theoretical models of modernity. The problem is, of course, that modernity quite properly can mean different things in different cultures. To the extent that KEDI can contribute to scholarly and popular understanding of various interpretations of modernity this project will have significance

The study report described above, however, is far too complex to be of interest to any but the most dedicated scholar. It includes over 300 tables and numerous mathematical analyses of very minor points. It is suggested that next steps of this study concentrate on those aspects of sex-biases and of women's education where some concrete action might be indicated within educational programs of the future. The pilot curriculum materials now being tested are a step in the right direction.

Population and Environment Education

United Nations Fund for Population Activities support for KEDI's population education work is phasing out and the Korean government is beginning to pick up the costs of diffusion of the curriculum materials developed by KEDI (see previous interim reports). Late in 1977, seven volumes of resource materials for population education will be completed by KEDI, summarizing much of the material previously issued in various reports. These volumes will include the following:

1. Total program design and summary
2. Population analysis approaches
3. Population increase and social development
4. Population change and economic development
5. Population growth and management of the environment
6. Reproduction and population
7. Family life and maternal and child care

In addition, KEDI will distribute a set of fifty slides and two population education films developed during the project, develop a new teachers' guide for population education in high schools, do research on training materials for middle school teacher training, and prepare a report of the first three years of the project during which UNFPA funds were used.

During the summer of 1977, the Ministry of Education trained 7,000 high school teachers in the use of KEDI materials. Colleges of education in eleven universities participated in this effort.

Beginning in 1978 and succeeding years, training efforts will be extended to middle school teachers and to primary school teachers. In addition, more concrete curriculum materials will be developed for high school, middle school, and elementary school, emphasizing not only population education concerns, but environmental concerns as well. All of the basic research concerning the content of population education has been completed, and conceptual work is now underway to define the content of the environmental education components. By 1982, it is assumed that complete sets of curriculum materials in population education and in environmental education will be available for use in primary schools through the high schools, and the first round of in-service training at all levels will have been completed.

First steps to identify concepts of environmental education were taken by a KEDI convened seminar in June, 1977. Some 30 top specialists in Korea plus numerous observers explored various approaches to environment education, including social/psychological, physiological, and ecological. It is anticipated that the KEDI approach will be eclectic, borrowing from these various approaches.

The gradual shift in research emphasis from population education to environmental education illustrates the KEDI movement from projects to programs. Once the basic work has been done on population education, and the research work was well on its way to being translated into concrete

curriculum and teacher training activities, KEDI shifted its attention to a related problem, that of environment. Where population and environmental concerns overlap, they will be treated concurrently in the new curricular materials to be developed.

Community Education

Early studies of KEDI related to community (Saemaul) education have been completed (see interim reports of previous years) and there is currently little follow-up by KEDI on these studies. The unofficial National Association for School and Community continues to support school efforts in community education, but local members of the association have difficulty in motivating people to participate in activities. As shown in KEDI's recent study of sex-biases, Koreans tend to be home-bound and are not highly motivated to participate in community activities.

Various local units of the National Association for School and Community sponsor activities for women (flower arranging, singing, etc.) and a number of local units sponsor evening classes in various skills such as typing and welding.

The idea suggested in earlier reports that KEDI undertake a study of the various adult and community education organizations in the country, looking toward a plan of integrated action, has not been taken up. Perhaps such a study is not feasible or needed at this time.

C. External Relationships

KEDI's external relationships continue to be healthy. Among significant recent activities in cooperation with other organizations have been the following:

1. Asian Program for Educational Innovation and Development (Bangkok). KEDI has prepared seven case studies for APEID dealing with industrial arts in Korea; the learning skills development project for disadvantaged middle school students; the mastery learning project in Korea; the development of the Air and Correspondence High School; the Elementary-Middle school project; the vocational training project in Korea; Saemaul education in Korea. A number of teams from other countries have visited KEDI under APEID auspices and KEDI will host, in September, 1977, a preparatory meeting for the forthcoming UNESCO regional meeting of Ministers of Education. KEDI will send a representative of APEID's forthcoming Advanced Level Workshop in Education for Rural Development (Iran, August, 1977). In August, 1976, KEDI hosted an APEID regional meeting on curriculum development, with high level officials in attendance from Malaysia, Sri Lanka, Philippine and Thailand.

2. UNICEF. UNICEF's current five-year program for Korea anticipates the commitment of about 2.7 million dollars in areas related to health, welfare, nutrition, day care, and similar concerns.

Two education related projects recently approved involve experimentation in pre-primary education (Korean Institute for Research in the

Behavioral Sciences) and a plan for the development of decentralized educational resource centers (KEDI and the National Institute of Education).

The latter project will involve the improvement of the educational materials and audio visual centers attached to the various local boards of education. KEDI hopes to be able to use these centers for dissemination of new curriculum materials and for the in-service training of teachers. The National Institute of Education appears to want to use the centers as repositories of equipment in the traditional audio visual mode. Discussions are continuing between KEDI and the NIE as to how the project will be implemented.

A proposal by KEDI for possible UNICEF support of a project to improve the educational planning departments of provincial offices of education was not approved by the Ministry of Education.

3. Center for Production and Training for Adult Education and Television (CEPTA/TV Singapore). The cooperative relationship between KEDI and this organization, described in previous interim reports, is continuing. KEDI trainees continue to visit Singapore, and CEPTA/TV is currently assisting KEDI in the production of a film on urban/rural relationships in Korea.

4. German Foundation. Professor Groothof, an educational sociologist of the University of Cologne, responsible for the reorganization of adult education in Germany, will visit KEDI in late 1977 for three weeks.

He will study the Saemaul movement, community education, and KEDI's vocational education projects, offer a series of lectures, visit various projects, and will write a book on Korea's educational development efforts, based on information gathered during his visit.

Good communication also exists with UNESCO National Commission in Korea, and with various United Nations Organizations, both within Korea and internationally. Various bilateral assistance groups, including the British Council, collaborate with KEDI on occasion. And the stream of visitors from many countries and institutions continues to grow year by year.

D. Publications and Information Control

As the KEDI program becomes more complex, the publications and dissemination problems also increase. Beginning in late 1977, KEDI publications will be supervised by an editorial committee which will approve all new titles. All manuscripts will be reviewed and approved by this committee before publication.

Also, a system of offset reprints has been established to permit quick and economical reproduction of reprints of publications requested by teachers and academics in Korea. Although editions of many publications continue to be small because of limited financial resources, the ability to do reprints on demand provides a needed additional dissemination vehicle.

KEDI is also cooperating with the Korean Science and Technology Information Center (KORSTIC) in exploring ways of establishing information collection, storage, control, and dissemination in education and the social sciences. KORSTIC has developed a computer-based information storage and retrieval system in the science and technology area, and KEDI would like to extend that system to the education area. As a first step in cooperation, KORSTIC and KEDI have recently jointly published the first issue of a guide to the contents of current journals in education, science, and sociology. This guide lists little more than the table of contents of journals (mainly foreign) available in Korea, but it is a good first step towards a system of information storage and dissemination.

E. Conclusions

One can only conclude that KEDI is maturing in its role as an educational policy and planning institution. The long-term significance of this role for Korean education is certainly equal to the significance of the curriculum research, development, and delivery work of the Institute. In fact, many of the more critical areas of curriculum reform will increasingly depend on results of the policy studies for their conceptual framework (i.e., value education, population and environment education, vocational and technical education, sex role biases, etc.).

The various projects in the planning and policy area are showing signs of developing into continuing programs. This trend would be accelerated if

there were more substantial resources, both financial and human, allocated to KEDI initiated policy and planning studies. Of the moment, KEDI initiated studies are under funded and under staffed. Studies requested by outside agencies often (although not always) bring funds with them and tend to be better staffed.

There must be an attempt on KEDI's part to establish a good, continuing program of policy and planning studies, with continuing data collection and analysis activities that will form a kind of cumulative wisdom, useful in dealing with new policy questions as they arise. In essence, KEDI must keep ahead of the next crisis, rather than reacting to each crisis as it comes along. Urgently needed is a good educational research information, storage, and retrieval system. First steps with KOTSTIC may develop into such a system.

KEDI appears to be collaborating well with universities and research institutions elsewhere in Korea. Personnel of these institutions are invited to participate in KEDI projects, and to some extent KEDI contracts out portions of its work. Certainly, KEDI should have a continuing core program of in-house research, but it should also see as one of its goals the encouragement of other research institutions in Korea, both from the point of view of using available human and

institutional resources, and from the political view of establishing KEDI as an institution which does not attempt to co-opt all research funds in Korea.

So far, KEDI seems to have established a nice balance between basic and applied research. Researchers, even doing basic studies, appear to keep the "so what" in mind. Many projects include a product component: in essence, a pilot set of teaching materials, a teacher's manual, a series of teacher-training workshops, or what have you. Where needed, a basic research study is done to form the intellectual base and conceptual framework for a project (i.e., the studies on principles of attitude and value change).

The KEDI publications program is impressive. Additional funds are needed for larger editions of many studies, but the new reprint service is helpful in meeting requests for out-of-print publications. The new Editorial Committee which must review and approve all publications is a step in the right direction. This will assist in maintaining quality control and will be helpful in developing a coherent publications plan.

External relationships are healthy. KEDI is becoming well known internationally, and this contributes to KEDI's sophistication since KEDI staff keep well informed of international developments relevant to its work.

In essence, KEDI's policy and planning research is asking the right questions and collecting the right information so as to assist authorities

in educational decision-making. It is also acting as mediator between the government and the aspirations of parents and the various Korean communities. To the extent that it can keep ahead of the various crises in educational development in Korea, possibly to the point where many of these crises can be averted, KEDI will establish itself as an irreplaceable educational policy and planning agency.

VII. A PLAN FOR SELF-ASSESSMENT BY KEDI

A. Introduction

This section represents an attempt to create a scheme for viewing, over time, organizations which are charged with bringing about change in societal establishments. Specifically, using the Korean Educational Development Institute as case in point, this discussion proposes a plan for understanding and explaining the corporate and programmatic behaviors of a research and development operation in the education sector.

Throughout the world, R and D centers have been and are being created. In general, such centers attempt new applications of theory to educational problems. Their real reason for being is to gather existing evidence; invent new mechanisms, procedures, and materials; and to cause the larger system to adopt those inventions and to diffuse them rapidly. In order to best serve, they may do basic research as well as applied research. Their power to cause change comes from the persuasive quality of their inventions and syntheses, the capacity and receptivity of the larger system for utilizing inventions and syntheses, and the general economic capacity required for diffusion.

R and D functions first achieved sophisticated levels in industry as scientists were put to tasks associated with new product and process development. If an invention proved practicable and market research suggested future profits, the company involved had the power, in itself,

to cause the changes called for to occur and to produce the changed or new item. The general public has no input to such a process, and cannot alter the product once it comes into the purchaser's hands. Similarly, the workers who manipulate materials, using predetermined process standards and behaviors, cannot materially influence the nature of the outcome.

R and D operations in education, as separate organizational entities, received special attention in the '60s. Although educational research was an old and more or less honored tradition, there was a growing impatience regarding the impact of research on practice. Too, research was traditionally limited to learning research with psychology as the basic discipline.

In the U.S. the impatience was parallel in time to a growing involvement of the Federal Government in education. Those two factors resulted in action on the assumption that well-funded autonomous R and D operations would involve more basic disciplines in educational research, by-pass schools of education, and provide the synthesis needed to cause specific innovation in educational practice. Thus a series of R and D centers was created, each with a different emphasis, throughout the country. They were, and are, attempts at intervention in the general system of education. They have no power -- certainly no authority -- to assure that their inventions are utilized in schools. Nor do the political units at state and local levels have sufficient authority to do so. Therefore, the R and D outcomes are

difficult to legislate into practice. Even more critical, in terms of relative position to industry, are the following: (1) the general public has a long-standing set of assumptions and opinions about education and its importance in the change process, (2) the practitioners in education, unlike the workers in industry, are potent interpreters of new products and processes at implementation levels and (3) the direct consumers of education, the students, can absorb and manipulate the substance of innovation and change in an infinite variety of ways and to widely varying degrees.

In recent years many countries have created R and D centers in an effort to speed up change in education toward greater access to the system, improved materials and delivery systems, and greater efficiency. Again one finds disaffection with existing professional training institutions and with those bureaucracies responsible for education and the assumption that R and D units will cause change. Such centers tend to be less autonomous than U.S. counterparts and more tied into the system's political authority structure. Therefore, it is theoretically possible, given an effective R and D outcome, for the central government to decree the diffusion of the product or process throughout the system in a short time. Even in such centralized systems, however, the public still has certain expectations, the practitioners still can interpret the change differently than intended, and the direct consumer may or may not utilize the results.

Such centers, particularly in emerging nations, are in interesting positions. They, themselves, are interventions into traditional systems. They may be offensive to universities, they may shock public understanding of how education looks and behaves, and they may threaten the careers of vast numbers of practitioners.

The R and D operation in a centralized system, then, must behave within a complex structure of authority, power, and expectations. The political entity (the government) represents the authority to effect change, the practitioners hold the power to render change ineffective, and the expectations of the society range from the traditional to the utilitarian.

KEDI, to be an effective instrument in the improvement of the educational system, must ultimately influence all three. Its efforts at self-assessment may need to emphasize the process of influence even more than the results of specific program endeavors. The attempt here is to create a professional-political scheme for self-assessment -- a way to systematically view the corporate behaviors of KEDI.

B. An Approach to Development of a Self-Assessment System for KEDI (Criteria of Success)

The literature on educational administration and evaluation produces many models which contain the elements which must be included in the development of criteria of success. In general, administrative models place the organization within a societal context and survival and legitimacy are

assumed within that context. The emphasis is upon the skills administrators develop and bring to bear upon the classic identification of processes associated with administration -- planning, decision-making, communicating, organizing, and the like. Evaluation models, except for the normative and conventional wisdom efforts associated with accreditation and bureaucratic approvals, come from efforts to assess individual programs. Although the models can be used at institutional levels, they become somewhat bulky when applied to complex, multi-program situations. Efforts at development of a body of theory around institution building concepts have also been useful, particularly in accepting the value of understanding philosophical and political forces and their impact upon organizations.

All of these contribute to this attempt and elements of each are found in the conceptualization in this paper. In the interests of serving KEDI, however, an effort is made to relate relevant theoretical and empirical work to a developmental and managerial situation unique to KEDI.

Because the attempt here is to find a systematic approach to organizational self-assessment, the criteria are related to those levels within the organization at which information is utilized for decision and control purposes above program levels. The rationale for that limitation may be seen in the following statement of assumptions.

1. Organizations (institutions) exist in education to allow and encourage optimum order and effectiveness in the delivery of services within a general philosophical and goal framework.

2. Any organization, then, will be accountable for delivery of those services for which it accepts responsibility within its existing and evolving mission.

3. Administrative management structures and people exist in order to assure: (a) the survival of the organization so that service delivery is possible, (b) professional legitimacy so that the services delivered are valuable, (c) the presence, development, and appropriate allocation of all resources required for delivery of services.

Given those assumptions, a system for KEDI self-assessment as an operational organizational actor on the Korean educational scene, should assure attention to the following categories of evidence:

1. Legitimacy Criteria
2. Management Criteria
3. Planning Process Criteria
4. Product and Services Outcomes

These categories will form the general headings of the Criteria of Success plan. Each of the categories should be viewed in two ways: (1) in relationship to its environment, and (2) as a complex operating entity.

KEDI as Institution in Korean Society

Because KEDI exists to respond to and cause change in education, assessment criteria must include items about how it relates to its environment. Relevant data about that environment might be categorized as follows:

1. Political

- a. General national political climate;
- b. Institutional interface with political units and agencies in government;
- c. Institutional interface with other educational institutions and groups.

2. Social

- a. Educational expectations of general society;
- b. Social priorities of the people;
- c. Diversity of ethnic, linguistic, geographic, and economic origins.

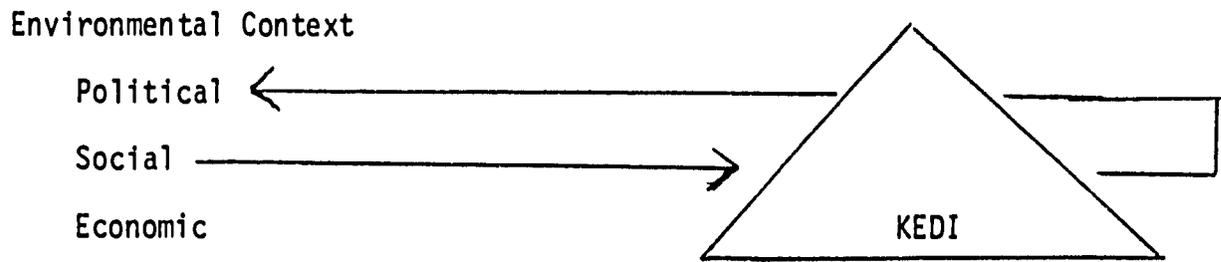
3. Economic

- a. Gross measures of economic wealth and growth;
- b. Economic commitment to education sector;
- c. Economic development directions

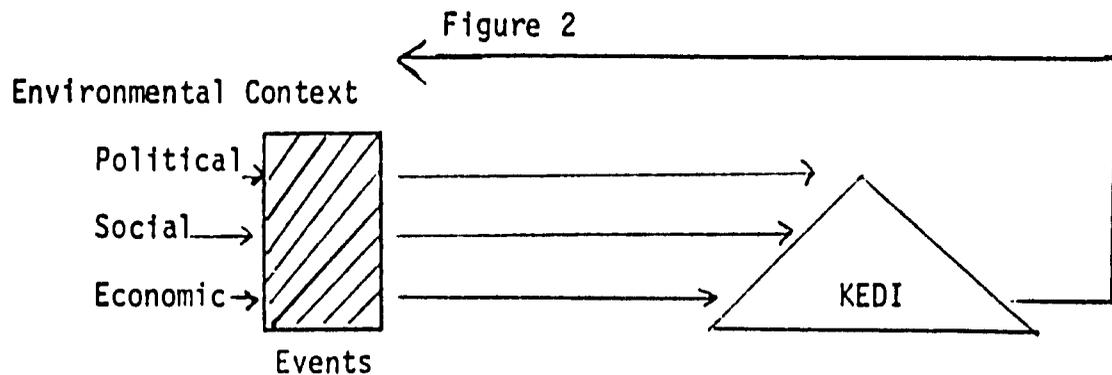
Within its political-social-economic environment, KEDI must exist and have purpose. How its leaders select and interpret environmental data and how they behave in response to it will, to a large extent, determine the effectiveness with which KEDI serves.

To this point we have a fairly standard schematic for the relationship of an institution to its environment.

Figure 1



Thus, an institution must not only operate within a "normal" environment, it must also be able to anticipate, adjust to (or combat), and perform legitimate roles when rapid change occurs. To the schematic in Figure 1, then, we add an external event filter.



Often an event causes dislocations in a system for very short periods of time and effects can be isolated and treated. Other events may be symptomatic of larger problem/opportunity trends. And still other events may signal permanent changes in basic data flows. If the effect of an event can be observed over a long period of time it becomes a normal data input and must be used to understand the system's environment.

External events may affect aggregate environmental data which impact upon the the institution. Examples could be: severe economic recession/upturn; change in government policy for socio-economic development; war or threat of war.

Or the event may not disturb normal flows of aggregate data but appear in the form of pressure to include/exclude new persons, programs

or processes in the institution. Examples include: ad hoc requests from MOE to assume tasks; AID's support of specific programs; confusion over territorial rights with other institutions. The latter kinds of events do not directly affect KEDI's mission as might those which change aggregate data. They tend, instead, to affect institutional internal behaviors.

To this point, emphasis has been upon KEDI's relationship to its external environment. Now, it is necessary to turn to the need to assess how it operates internally.

KEDI as Complex Entity

Although KEDI, like most R and D institutions, operates in a climate of high uncertainty and is influenced by its external environment, it must also assess itself as an organizational entity. KEDI shares with other educational institutions the feature of having a high percentage of professionals among its personnel. That characteristic suggests that a strong internal culture may provide stimuli for organizational change and may shape the manner in which activities are defined and carried out.

Although we have referred to "corporate" or "institutional" behavior, we realize that only persons observe, analyze, and act upon environmental data within the institution. And it is persons who determine the internal character of an institution. We do know, however, that the peculiar situation of a given institution is a strong determinant in the behavior of persons working in that institution. Ultimately, it is the amalgam of

person behaviors which are recognizable as a corporate stance. Therefore, both the over-all scheme of self-assessment and the resultant criteria must focus upon what persons accept and respond to from environmental data, how resources are marshalled and deployed, how processes are determined and applied, and how products and services relate to institutional mission.

Examination of the institution includes attention to internal policy, organizational structures which show formal flows of authority and information, personnel function and organization, and administrative processes. Among these, an emphasis has been given to the internal planning process. This has been done because planning can include all other critical processes and provides a suitable sequential framework for assessment.

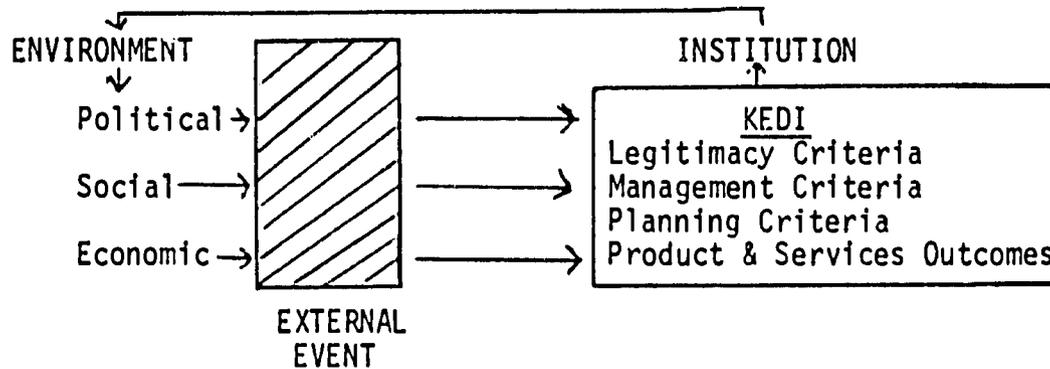
Further, in-depth self assessment must go beyond the formalized schemes of form and function and include informal relationships which affect communication channels, influence and power, and sources of motivation, dissatisfaction and contentment.

KEDI's leaders, by virtue of the unique place KEDI holds within the total educational system, are in constant contact with their external environment. They must assure a balance between response to that environment and to internal requirements for stability and professional satisfaction.

The scheme for self-assessment permits one to systematically study the mutual impact of the environment-institution dynamic and/or to study the institution as functioning organism. Ultimately, of course, it is not possible to separate the two. But, for the purposes of data collection, it is essential to ask discreet questions within the Criteria of Success categories.

Figure 3, then, combines the concerns about the normal environment, external events, and the internal behaviors of the institution.

Figure 3



C. The Criteria of Success Instrument

The instrument, a draft of which is presented here, is presented for review and refinement by the membership of the Korean-American study team, its advisory board, and by KEDI staff. It is hoped that, in final form, the instrument will have the following characteristics:

1. It should present an opportunity for open-ended comment by individuals for response from a variety of perspectives as well as serve both internal and external study groups.
2. It should serve as a check-list of things to attend to on the part of KEDI leaders.
3. Data collected in its application should be for internal review and interpretation by a wide representation among personnel.

One will note that the instrument does not elaborate Product and Services Outcomes Criteria. It is assumed that data collected under Planning Process Criteria will lead to practices in program evaluation to be applied to each program activity. Therefore, the programs will receive separate and specific attention as they develop, are implemented, and culminate in products and services.

It should not be assumed that the lack of attention to programs suggests their relative unimportance. Early in this paper the prime reasons for approaching the Criteria of Success development were stated. The opening statements of assumptions make clear that it is products and services that provide KEDI with a reason for being and that weigh heavily in determining appropriate management and process behaviors. Therefore, all data collected around the criteria which have been elaborated must be judged on the basis of the programs undertaken within the KEDI mission.

CATEGORY I: Legitimacy Criteria

Institutional survival and success depend in part on the legitimacy given the institution by its environment. KEDI is directly dependent on the government for its legal standing, on sponsors for its fiscal resources, and on a broad professional community for the support of its research and the implementation of its results.

1. INSTITUTIONAL SURVIVAL

1.1 LEGAL STATUS

Is the existing legal status considered an adequate guarantee for the near future?

1.2 BUDGET

To what extent has there developed a stable, long term means for provision of essential fiscal resources?

2. INSTITUTIONAL MISSION

2.1 GOALS AND DOCTRINES

To what extent are KEDI's goals and doctrines understood and accepted by the organization and its environment? Do various groups in the environment perceive KEDI mission differently?

2.2 ROLES AND RULES

To what extent are the values and norms institutionalized in the formal role structure and in the rules and regulations?

3. GOVERNMENT RECOGNITION AND STATUS

3.1 ACCEPTANCE OF KEDI MISSION

Has there been a periodic reaffirmation of the KEDI mission by government officials? What persisting strains or disagreements are there between the MOE and KEDI?

3.2 INVOLVEMENT IN NATIONAL PLANNING

Has there been a continuing role for KEDI in the construction and revision of national education plans?

3.3 INVOLVEMENT IN NATIONAL POLICY MAKING

To what extent have KEDI staff participated in national policy making bodies or groups?

3.4 INVOLVEMENT WITH PROVINCIAL GOVERNMENTS

What kind and frequency of requests for KEDI assistance have come from provincial officials?

3.5 OTHER INTERACTIONS WITH GOVERNMENT

What is the kind and frequency of other formal and informal communication and involvement with the government? Are there requests for assistance from non-education offices?

4. RECOGNITION BY MEDIA

To what extent is there coverage of KEDI activities by the mass media? What is the nature of that coverage?

5. PROFESSIONAL RECOGNITION AND STATUS

5.1 INTERRELATIONSHIPS WITH PROFESSIONAL AND ACADEMIC ORGANIZATIONS

To what extent do professional and academic organizations request KEDI services? What kinds of services are requested/offered? Are there perceived conflicts between certain organized professional groups and KEDI?

5.2 INTERRELATIONSHIPS WITH UNIVERSITIES AND TEACHER EDUCATION INSTITUTIONS

To what extent do teacher education institutions seek KEDI assistance? In what areas do the requests come? In what areas do universities view KEDI activities as complimentary? As conflicting?

5.3 CONTRIBUTIONS TO PROFESSIONAL PUBLICATIONS

How frequently do professional journals and other publications request contributions from KEDI? From what publications do most requests come?

5.4 INTERRELATIONSHIP WITH TEACHER ORGANIZATIONS

To what extent is there two-way communication with teacher organizations? What are perceived as the areas of support? Of conflict?

5.5 INTERRELATIONSHIPS WITH RESEARCH ORGANIZATIONS

How frequently do other research organizations and research and development institutes seek KEDI service? What is the nature of such requests?

5.6 INTERRELATIONSHIPS WITH SCHOOLS

How familiar are the teachers and administrators of the elementary and middle schools with KEDI activities? To what extent do they wish to utilize KEDI products?

5.7 INTERNATIONAL INVOLVEMENTS

What kind and frequency of requests come from international organizations? What is the frequency of visitation by foreign educators and government officials?

6. INSTITUTIONAL AUTONOMY

6.1 CHOICE OF R AND D PROBLEMS

To what extent can (and does) KEDI choose its areas of research and development? To what extent does KEDI engage in basic research? Do the governmental and professional communities view basic research as a legitimate function of KEDI? To what extent does KEDI have autonomy in the recruitment of its personnel? To what extent is KEDI free to select sponsors?

CATEGORY II: Management Criteria

The efficiency of an organization is generally assumed to relate to the management of its resources. The pressure of completion deadlines, the competing demands on time of individuals and the possible tensions between bureaucratic and professional styles combine to make the internal management of KEDI sensitive and demanding.

1. FISCAL RESOURCES

1.1 REAL MONEY SUPPORT

Have fiscal resources been adequate to perform mission? Has the growth in KEDI fiscal support kept pace with general growth in support for education?

1.2 FINANCING STRATEGIES

Thus far, what have been the results of long-term financing strategies?

1.3 PROPOSAL FUNDING

How successful has KEDI been in having R and D proposals funded?

1.4 BUDGETING AND CENTRAL PROCESSES

On what basis are fiscal resources allocated for organizational tasks? Can internal approval for expending funds be quickly obtained?

2. PHYSICAL RESOURCES

2.1 SPACE

Is space adequate for the current mission? How is space allocated?

2.2 EQUIPMENT

Is there sufficient administrative and research equipment? On what basis is equipment allocated? Is it necessary to use equipment of other organizations? Is such reliance cost effective?

2.3 AMORTIZATION AND REPLACEMENT STRATEGIES

Is there a replacement strategy for equipment? How was it determined?

3. HUMAN RESOURCES

3.1 NUMBERS

Are there adequate numbers of personnel to carry out the department and project objectives?

3.2 QUALITY

Are there personnel of adequate quality to carry out the department and project objectives? Is there an appropriate mix of specializations among the personnel?

3.3 RECRUITMENT AND RETENTION

Can KEDI compete successfully with other organizations in recruitment and retention of high quality personnel? Does recruitment tend to be personalized or take place on the basis of an open and objective selection of talent?

3.4 TRAINING

Are there adequate resources allocated for training? Has overseas training been adequate? Has it been cost effective? Is there a comprehensive training program in KEDI for research and support personnel? Where does the basic responsibility for training lie?

3.5 SATISFACTION

Do KEDI personnel exhibit pride in their work and in KEDI? Does the behavior of personnel reflect an identification with the institution? How is morale assessed?

3.6 REDUCTION AND TRANSFER

Has there been a need to reduce or transfer personnel? Have there been excessive voluntary resignations?

3.7 UTILIZATION

Are some researchers overused and others underused? How is an equitable distribution of work achieved? How extensively are outside professionals used? Are fees sufficient to attract high quality outsiders? Is there an attempt to utilize outside professionals from a large number of institutions? How are the roles of the outside professionals defined?

4. COMMUNICATION

4.1 VERTICAL

Are there vertical channels for communication in both directions? Are these channels recognized? Do personnel know to whom they report?

4.2 HORIZONTAL

Are there horizontal channels for communication? Is horizontal communication encouraged? Does the physical location of personnel facilitate communication?

4.3 FEEDBACK

Are there identifiable channels for feedback of information on organizational performance? Does distortion occur?

4.4 DISPERSEMENT

Is significant information pertaining to KEDI dispersed throughout the institution?

5. DECISION MAKING

5.1 DISTRIBUTION OF POWER

What is the degree of centralization of power? What is the level of participation in institutional decision making? What informal power and influence networks exist?

5.2 AUTHORITY AND RESPONSIBILITY

Are the authority and responsibility associated with each organizational position understood? Is the process by which major decisions are made clearly identified? What are the distinctions in responsibilities between the President (and Vice President), department heads, and OPC?

5.3 RESPONSIVENESS

Can the decision making process respond quickly to internal and environmental problems or demands?

CATEGORY III: Planning Criteria

Although planning may be considered as a function of management, the planning process in this outline is separated out to emphasize its significance. KEDI needs an ability to adapt to changing supports and demands from its environment. Anticipating the future thus becomes a major organizational concern.

1. DESIGN FOR PLANNING

1.1 RESPONSIBILITY

Is the planning responsibility identifiable? Are the lines of planning responsibility between OPC and the departments clear? At what levels is there analysis of future demand and future capability? Are alternative futures considered?

1.2 STATUS

Does the leadership of KEDI support the concept and practice of planning?

1.3 RESOURCES

Are resources in terms of time, technology, and staff available to develop and evaluate plans?

2. OBJECTIVES

2.1 MISSION STATEMENT

Does KEDI have a clear comprehensive Mission Statement? Is there evidence of mission support by the leadership and among the departments?

2.2 REVIEW AND ANALYSIS

Is there an established process for reviewing and revising the institutional and departmental mission statements? Who is involved in such review?

3. PROGRAM-MISSION CONSISTENCY

3.1 MISSION-NATIONAL POLICY

Is there congruence between the KEDI mission and the national educational plan? Between KEDI mission and MOE bureau plans?

3.2 MISSION-PROGRAMS

Is there congruence between programs and projects accepted and KEDI mission? Is there congruence between the programs and policies initiated and KEDI mission?

4. GENERATING AND UTILIZING TECHNICAL INFORMATION

4.1 PLANNING TECHNOLOGY

In attempting to describe the future, are modern planning technologies employed? Cost effectiveness? Simulation? Future analyses? Need assessment? PERT? Linear programming? Delphi techniques? Which techniques are employed in program planning? Which evaluation technologies are used?

4.2 DISSEMINATION AND UTILIZATION

Is there a clear responsibility for generating and disseminating

planning information evidence that new technical information about the future influences, the direction of programs and projects?

5. IMPLEMENTATION

5.1 NEW PLANS AND POLICIES

How are new resources and demands translated into institutional goals? How are goals translated into departmental programs and projects? Where do the responsibilities lie for such implementation?

CATEGORY IV: Center Products and Services Outcomes

In final analysis organizations and individuals with which KEDI relate will all ask the question, "How effective is KEDI?" The criteria employed in such judgment may well be different for the government, for universities, and for teacher groups; indeed, such criteria may never be made explicit. A crucial function of KEDI, then, is to demonstrate to its various publics its level of performance and success in achieving its mission.

1. OUTPUTS

1.1 PROGRAM AND MATERIALS DEVELOPMENT

How complete is the design of the new instructional system? What diagnostic tests have been produced? Curriculum materials? Remedial materials? TV/radio programs? Test materials? Teacher guide?

1.2 PROGRAM DIFFUSION

How extensively have the new educational system and materials been diffused?

1.3 TECHNICAL PAPERS AND MONOGRAPHS

How many technical papers have KEDI staff published? How many monographs?

2. DIRECT OUTCOMES

2.1 EDUCATIONAL ACHIEVEMENT

What changes in educational achievement can be attributed to the introduction of KEDI programs?

2.2 TEACHER COMPETENCE

As the result of participation in KEDI activities are teachers viewed as being more competent? By students? By administrators? By themselves?

2.3 EDUCATIONAL EQUALITY

Has the KEDI instructional system reduced regional disparities in educational achievement? How cost effective is this effort?

2.4 NATIONAL PLANS AND POLICIES

Has KEDI's technical input to national planning been reflected in official plan documents? Has KEDI's technical advice been incorporated into national policies?

3. INDIRECT OUTCOMES

3.1 STUDENT, TEACHER, AND PARENT ATTITUDES

In addition to changes in student achievement, have there been changes in attitudes attributable to KEDI programs? Level of student interest in schooling? Teacher satisfaction? Level of parental participation?

3.2 IMPROVED EDUCATIONAL RESEARCH

Have KEDI's efforts helped to promote a belief in the utility of educational research and innovations among Korean teachers? Have KEDI trained researchers who have left KEDI continued significant research involvement? Have KEDI's efforts with demonstration and cooperative schools stimulated research or development activities in the research centers attached to provincial boards of education?

3.3 NEW COOPERATIVE EDUCATIONAL LINKAGES

Have KEDI's efforts promoted a belief in the need for closer collaboration between research training and administration in education? Has there been growth on the part of MOE officials in the belief in the utility of a national research and development institute?

3.4 NEW FUNCTIONS OF MOE

Are the functions of MOE changing as a result of KEDI? As MOE gives its problems to KEDI, does it give up professional competencies?

3.5 INTERNATIONAL EDUCATIONAL STATUS

Have KEDI's activities received favorable international recognition? Have KEDI's efforts increased the international perspectives of Korean educators?

ANNEX A

-List of Publications

Research Report*

- No. 35 The Korean People's Consciousness of National, Insoo Son and ChaeHyuk Joo, 1976 (500).
- No. 36 An Application of a New Education System (Report of the first comprehensive demonstration of the KEDI educational system), Jaebum Kim, Sukwoo Chang, Jaemoon Park, Jonghee Ro, Soonjeong Kim, 1976 (1,000).
- No. 37 A Survey on the actual condition of the Air and Correspondence High School, Kihyung Hong, Sungil Kim, Iljae Sung, Kwangpyo Lee, Jeongbok Lee, and Minshik Jeong, 1976 (500).
- No. 38 Design on Resource Material Development for Population Education, Sooil Kim, et al., 1976 (2,000).
- No. 39 Population Analysis for Population Education, Sooil Kim, Kun Ja Shin, and Dougwoo Lee, 1976 (2,000).
- No. 40 Population Increase and Social Development, Sooil Kim, Kisook Yoo, and Yong-ui Song, 1976 (2,000).
- No. 41 Population Change and Economic Development, Sooil Kim, Wanyung Pyoo, and Raeyong Park, 1976 (2,000).
- No. 42 Population Growth and Management of Environment, Sooil Kim, Tongjin Ha, and Maeshun Lee, 1976 (2,000).

*Figure in parenthesis indicates number of copies published.

- No. 43 Family Life and Maternal/Child Health, Sooil Kim, and Park Hyejung, 1976 (2,000).
- No. 44 Reproduction in Human Population, Sooil Kim and Kim Chongsik, 1976 (2,000).
- No. 45 Findings on Demonstration of Population Education in Elementary and Secondary Schools, Sooil Kim, Hyejung Park, and Tongjin Na, 1976 (2,000).
- No. 46 Survey on Population Consciousness of Students' and Teachers' in Elementary and Secondary Schools, Seho Shin, Sooil Kim, and Kisook Yoo, 1976 (2,000).
- No. 47 Objective Elaboration of Population Education Instruction, Sooil Kim and Kunja Shin, 1977 (2,000).
- No. 48 A Study on the Students' Attitude Toward the National Referents, Daeshik Hong and Sungil Kim, 1976 (500).
- No. 49 The Principles of Attitude Change, Daeshik Hong, 1976 (300).
- No. 50 Preliminary Study on Curriculum for Teacher Education, Choonghoe Kim, Jaemoon Park, and Moonhyun Cho, 1976 (500).
- No. 51 Effect of ITV on Learning and Attitude, Kukbom Shin and Yoojai Song, 1976 (500).
- No. 52 Toward a New Educational System Development for the Middle School, Yoontai Kim, Hyungrip Kim, Anjn Yoo, Jaesul Kwon, Jonghee Ro, Chunghwa Suh, Sulmin Chang, Mooil Jeong, and Wonjo Lee, 1976 (500).

- No. 53 Opinion Survey on Field Implementation of the New Educational System, Yungkye Byungand Sungyun Jeon, 1976 (500).
- No. 54 A Study on the Model Development of New Textbook, Scho Shin, Yoontai Kim, Myunbee Kim, Yongyi Song, Wonho Cho, Kyungja Han, and Kyisoo Yoo, 1976 (500).
- No. 55 A Study for Structuralization of Social Studies Curriculum in Elementary and Middle School, Seku Jeong, Myunhee Han, Yongyi Song, and Kyungja Han, 1977 (200).

Periodicals

1. KEDI News, No. 20-25, 1976. 7 - 1977. 6. (5,500 per Vol.)
2. Studies in Classroom Teaching, No. 13-17, 1976. 8-- 1977. 4. (15,500 per Vol.)
3. The Journal of Korean Education, No. 3-6, 1976. 6 - 1977. 4. (1,000 per Vol.)
4. Korean Educational Development, No. 3, 1977. 5. (1,000 per Vol.)

Research Data

- No. 6 Educational Innovations in Korea, 1976.
- No. 7 Educational Broadcasting -- An Annotated Bibliography, 1976.
- No. 8 Field Studies on Implementation of the New Educational System, 1976 (1,000).

Books

1. Problems in Education for National Identity, 1976 (800).
2. Manual of Educational Objectives for Elementary School, 1977 (16,000).

Others

1. Teacher's Guide for ITV and IR, (for 2nd Demonstration), 1976.
2. Teacher's Guide for ITV and IR, (for 3rd Demonstration), 1977.
3. Teacher's Guide for the first small scale tryout of the Middle School, 1976.
4. Learning Guide for the first small scale tryout of Middle School, 1976.
5. Teacher's Handbook for KEDI's New Educational System, 1976.
6. Teacher's Handbook for KEDI's New Educational System, 1977.
7. The Prerequisite Capabilities of the 1st Grade Students of the Air and Correspondence High School, Kihyung Hong, Sungil Kim, Jeongbok Lee, Boyung Jin, Kwangpyo Lee, 1976 (520).
8. Teacher's Handbook for School Radio Broadcasting (2nd Semester, 1976, Elementary School), 1976 (8,000).
9. Teacher's Handbook for School Radio Broadcasting (1st Semester, 1977, Elementary School), 1977 (6,000).
10. Handbook for Instructional Radio (2nd Semester, 1976, Air and Correspondence High School), 1976 (22,000).
11. Handbook for Instructional Radio (1st Semester, 1977, Air and Correspondence High School), 1977 (32,000).

EMP

Instructional Material Development for 2nd Comprehensive
Demonstration (Second Semester 1976, 3-5 Grades)

Book	Grade	Set	Circulation (set)	Unit Cost
Teacher's	3rd	8 Volume 1 set	532	2857.-- 84
Guide	4th	9 Volume 1 set	559	2857.-- 84
	3rd	9 Volume 1 set	546	2857.--
Total		26 Volume	1,627	
Learning	3rd	4 Volume 1 set	32,093	400
Guide	4th	4 Volume 1 set	33,039	400
	5th	4 Volume 1 set	32,163	400
Total		12 Volume	97,295	

Instructional Material Development for 3rd Comprehensive
 Demonstration (first Semester 1977, 3-6 Grades)

Book	Grade	Set	Circulation (set)	Unit Cost
Teacher's Guide	3rd	8 Volume 1 set	796	6 1804.-- (revised)
	4th	9 Volume 1 set	758	6 1804.-- (revised)
	5th	9 Volume 1 set	780	6 1804.-- (revised)
	6th	9 Volume 1 set	759	44 3645.--(first printed)
Total		35 Volume	3,093	
Learning Guide	3rd	4 Volume 1 set	46,785	84 379.--(revised)
	4th	4 Volume 1 set	44,248	94 379.--(revised)
	5th	4 Volume 1 set	44,899	94 379.--(revised)
	6th	4 Volume 1 set	43,832	28 490.--(first printed)
Total		16 Volume	179,764	

Instructional Material Development for 3rd Comprehensive
 Demonstration (Second Semester 1977, 3-6 Grades)

- In Print -

Book	Grade	Set	Unit Cost
Teacher's Guide	3rd	8 Volume 1 set	6 1804.-- (revised)
	4th	9 Volume 1 set	6 1804.-- (revised)
	5th	9 Volume 1 set	6 1804.-- (revised)
	6th	9 Volume 1 set	44 3645.-- (first printed)
Total		35 Volume	
Learning Guide	3rd	4 Volume 1 set	94 379.-- (revised)
	4th	4 Volume 1 set	94 379.-- (revised)
	5th	4 Volume 1 set	94 379.-- (revised)
	6th	4 Volume 1 set	28 490.-- (first printed)
Total		16 Volume	

Population Education Materials

- A. A Study on the Curriculum and Instructional Materials for Population Education; Findings out of the 1st Experimental Tryout
 - 1. Elementary and Middle Schools (Nov. 1975)
 - 2. High School (Dec. 1975)
- B. Teacher's Guide and Student's Workbooks for Population Education (Dec. 1975)
 - 1. Elementary School
 - a. Fourth grade
 - i. Social Studies
 - ii. Arithmetic
 - iii. Vocational education
 - b. Fifth grade
 - i. Korean History
 - ii. Social Studies
 - iii. Arithmetic
 - iv. Vocational education
 - c. Sixth grade
 - i. Korean History
 - ii. Social Studies
 - iii. Arithmetic
 - iv. Natural Science
 - v. Physical Education
 - vi. Vocational Education
 - 2. Middle School
 - a. First grade
 - i. Social Studies (Geography)
 - ii. Mathematics
 - iii. Physical Education
 - iv. Home Economics

b. Second grade

- i. Korean History
- ii. Social Studies (World History)
- iii. Science
- iv. Mathematics
- v. Home Economics

c. Third grade

- i. Korean History
- ii. Social Studies (Civics)
- iii. Mathematics
- iv. Science
- v. Physical Education
- vi. Home Economics

3. High School (Non-Grade but Subject Matter)

a. Korean History

b. Social Studies

- i. World History
- ii. Politics and Economics
- iii. Society and Culture
- iv. Korean Geography
- v. Human Geography

c. Mathematics

d. Biology

e. Physical Education

f. Home Economics

C. Exemplary Learning Units for Population Education (May 1976)

D. Resource Material Development for Population Education (Sep. 1976)

- 1. Design on Resource Material for Population Education
- 2. Population Analysis for Population Education
- 3. Population Increase and Social Development

4. Population Change and Economic Growth
 5. Population Growth and Management of Environment
 6. Family Life and Maternal Child Health
 7. Reproduction in Human Population
- E. Findings on Demonstration of Population Education in Elementary and Secondary Schools (Dec. 1976)
 - F. A Survey on Population Consciousness of Students' and Teachers' in Elementary and Secondary Schools (Dec. 1976)
 - G. Objective Elaboration of Population Education in Elementary and Secondary Schools (Jan. 1977)

ANNEX B

List of all Meetings

1. KEDI has been carrying out a study which aims at framing policy prescription against the difficult issue of the "repeater". A public hearing was held on July 24, 1976 to collect opinions of scholars, educators, journalists, parents and students on the policy draft. These data will be further refined on the basis of the expressed opinions of the different groups before it is finally adopted as a policy measure.
2. International Conference on Curriculum Development was held at the KEDI Conference room in August 2-9, 1976, with a view to exploring a curriculum model which provides a dynamic force for national development. The conference was participated in by the representatives of Malaysia, Thailand, Philippines, and Sri Lanka.
3. A conference for the diffusion of educational innovation was held under the auspices of KEDI on October 5-6, 1976. It brought together the administrators of provincial boards of education in charge of elementary education and the principals of pilot schools across the nation. The issues discussed at the conference centered around the elementary-middle school development project (E-M Project) and diffusion strategies of the innovative program.

4. Seminar on the Men and Women's Role Perceptions of Korean People was held under the auspices of KEDI on October 20-21, 1976. It was intended to throw light on the causes and practice of the prevailing prejudices with regard to the sexual roles and explore the ways to remedy them.
5. Symposium, co-sponsored by KEDI and the National Economic Association, was held under the auspices of KEDI and National Economic Association for nine days beginning on November 2, 1976. It provided a forum for an exchange of views among scholars, journalists, and businessmen with regard to the issues related to education policies.
6. The National Professors' Evaluation Team headed by Dr. Bom Mo Chung conducted analysis of the KEDI's activities in educational innovation for a week beginning on November 22, 1976.
7. A workshop on school management planning was held on January 24-25, 1977. It brought together 40 research teachers of pilot and cooperating schools and supervisors to discuss matters pertaining to management planning at the school level.
8. Seminar on Diffusion of Educational Innovation and Teacher Training
Participants: Deans of 13 Junior Teachers Colleges,
Chief of Superintendent at MOE, Section Chief of
Teaching Affairs at MOE, Section Chief of Teaching
Affairs at KFLA, Researchers at KEDI.

Date : -- June 11, 1977

Place : KEDI Conference Room

- Objectives :
- 1) To report outcomes and current status of E-M Project
 - 2) To explore the possibility of cooperation of pre- and in-service teacher training institutions for diffusing educational innovation.

Suggestions made by participants to KEDI and MOE:

- 1) The term of current junior teacher's college be prolonged to improve the quality of elementary school teacher and also the curriculum be revised.
- 2) Study for the division of junior teacher's college system and its curriculum be assigned to KEDI, and revision be made on the result of the study.
- 3) In order to secure elementary school teachers of ability and optimize the ratio of male and female teachers, incentives for teacher's college be emphasized systematically.
- 4) In order to meet rapid changing society of future, maximize the efficiency of education, and emphasize individual differences of student and higher mental process, elementary teacher training programs be reformed. Since the New Educational System of KEDI is efficient for innovating current system, its diffusion at nationwide level be recommended, and the new system be reflected in teacher's college curriculum.

- 5) In order to expand in-service training opportunity and participate in educational reform programs actively, teacher's college professors should spend a certain period of time at KEDI for research training.
- 6) KEDI ought to use attached elementary schools of teachers colleges as demonstration or cooperative schools.
- 7) In order to make the compulsory education substantial, decreasing number of class students and increasing equipment and materials should be achieved.
- 8) MOE ought to make a great effort to reflect the comments from seminar and research related to teacher training in its policy decision.
- 9) Seminar for Exploring the Innovative Approach of the Korean Middle Schools Industrial Arts Education

Time: May 20-21, 1977

Number of Participants : 59 persons

- . Specialists of the Industrial Arts Education

(Engineers)	9 persons
-------------	-----------
- . Specialists of Vocational Education 5 persons
- . Professors of Home Economics 5 persons
- . Specialists of Education 5 persons
- . Curriculum Specialists of Industrial Arts Education 5 persons
- . Teacher of Industrial Arts Education 7 persons
- . Laymen 8 persons
- . KEDI members 15 persons

Topics:

1. Exploring the new orientation of the industrial arts curriculum
 - a) Defining the nature of the industrial arts education
 - b) Describing the general objectives of the industrial arts education
 - c) Providing the criteria for selecting content
 - d) Providing the principles for organizing content
2. Exploring the effective learning and teaching processes of the industrial arts education
 - a) Providing the learning and teaching model of the industrial arts education
 - b) Planning the development of the learning and teaching materials
 - c) Exploring the evaluational techniques of the industrial arts education
3. Exploring the effective supporting systems of the industrial arts education
 - a) Exploring the effective methods of teacher education
 - b) Providing the tools and facilities

Seminar on Environmental Education

The seminar was held to establish the directions of environmental education appropriate to the Korean environmental situation. Specialists of all the fields related to environmental problems as well as curriculum specialists took part in the seminar on June 22. Main contents discussed in the seminar were as follows:

1. Principles and Structure of Environment
2. Environment and Human Living
3. Development and Conservation of Environment
4. How to Implement Environmental Education.