ABSTRACT
        This team report, one in the series described by SO
008 058, identifies representative cases of certain categories of
projects involving nonformal education (NFE) and describes them using
fairly uniform elements and a common framework. Nonformal education,
as defined for this application, is intentional and systematic, but
unlike formal education, subordinates form to mission. Eight
"families" of case studies represent a sample from a larger number of
possibilities categorized according to the project's mission and its
sponsorship. The eight categories include projects for agricultural
development, family planning, literacy, health and sanitation, and
projects sponsored by colleges, universities, voluntary associations,
armed forces, and industry--all taking place in both developed and
developing nations. Chapter 1 provides the rationale and methodology
used by the study team. Chapter 2 consists of a short listing of
cases surveyed, along with abstracts. All of the cases are described
more extensively in chapters 3-10. The final chapter synthesizes the
families of case studies and makes generalizations that will provide
practical lessons for the future of NFE. Appendixes carry
supplementary reports. (JH)

Program of Studies in Non-formal Education

Team Reports

CASE STUDIES

IN

NON-FORMAL EDUCATION

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FOREWORD

The Michigan State University Program of Studies in Non-formal
Education, made possible by the Agency for International Development,
has two primary objectives: to build a systematic knowledge base
about non-formal education, and to apply knowledge through consultation,
technical assistance, workshops, and the distribution of useful ma-
terials in developing areas of the world.

This series of Team Reports is directed at the first objective,
knowledge building. The series consists of the final statements of
nine teams of faculty members and research fellows, each working on a
separate aspect of non-formal education for a substained period of
time. The reports range widely over non-formal education. They deal
with its history, its categories and strategies, economics, and
learning. Other reports made comparisons among country programs,
survey case studies, examine the feasibility of designing non-formal
education models, look at administrative alternatives and draw plans
for participant training in non-formal education.

The teams were cross-disciplinary in composition, representing
such areas as economics, labor and industrial relations, political
science, public administration agricultural economics, sociology and
education. Together, members of the teams produced nearly one hundred
working papers, many of which were shared and debated in three series
of semi-weekly seminars for all project participants. The working
papers, copies of which are available upon request, provide the basic
ideas of the reports in this series.

In the interest of the freest possible exploration each team
was encouraged to range widely over its domain and to develop its own
set of conclusions and recommendations. Coordination was achieved
through the common seminars and the exchange of data and experience.
A summary volume, pulling together and synthesizing the main thrusts
of all the team reports in this series, is being prepared under the
editorship of Marvin Grandstaff. Like the working papers, the summary
volume will be available for distribution.

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In line with our first objective (knowledge building) the papers in this series are conceptual in nature. In the pursuit of knowledge, however, we have tried to keep one question steadily before us: what assistance does this knowledge provide to those whose primary concern is with action--the planning and implementing of non-formal education at the level of practice? That question isn't easily answered. At best our knowledge is partial and it needs the experience dimension to make it more complete. For thought and action are not antithetical; they are necessary complements. One of our hopes is that this series of team reports may help to stimulate further dialogue between those who approach the subject of non-formal education from a conceptual point of view and those whose questions and problems arise in the exigencies of practice.

What is the role of non-formal education in future development planning? As these reports suggest, it is probably great, and will be even greater through future time. The limitations of formal schooling are coming to be better understood. As the Faure report concludes, the schools "will be less and less in a position to claim the education functions in society as its special perogative. All sectors-public administration, industry, communications, transportation must take part in promoting education. Local and national communities are in themselves eminently education institutions".

The non-formal education component of most societies is strong, indeed frequently vigorous, and fully capable of further development and use. It is estimated that roughly half of the present educational effort in the developing countries is in the non-formal sector. Collectively, these programs exhibit characteristics indispensible to development. For example, they tend to arise in response to immediate needs; they are usually related to action and use; they tend to be short term rather than long; they have a variety of sponsors, both public and private; and they tend to be responsive to local community requirements. More importantly non-formal education shows strong

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potential for getting at the human condition of those most likely
to be excluded from the formal schools, the poor, the isolated, the
rural, the illiterate, the unemployed and the under-employed, for
being carried on in the context of limited resources, and for being
efficient in terms of time and cost.

Clearily, attention given to designing new strategies for the
development of this old and promising resource is worthwhile. Through
this series we seek to join hands with others who are attending to the
development of non-formal education.

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CHAPTER I

INTRODUCTION

Rationale and Purpose of the Research

The Case Study Survey Team of the Program of Studies in Non-Formal Education is one of nine established for the purpose of systematically building the knowledge base of non-formal education so that practitioners in the field may use this knowledge to plan and implement non-formal education related programs. The charge of the team is as follows:

> A survey will be conducted of specific examples of non-formal education. Potential case studies might be examined more completely to determine such matters as their replicability in other settings, cost-benefit comparisons, problems of measurement, variables important to success, and relationships to formal educational systems.

This charge implies that the methodology of case study survey has something to contribute to the knowledge building enterprise in NFE. Case studies are useful in that they provide an insightful, deep and comprehensive description of a subject. It is logical for a relatively new research field, like NFE, to first undertake a descriptive research. Descriptive research is a necessary step before one proceeds to a type of research, that yields explanation and prediction. Through this intensive work, one can generate variables which can be operationalized, their interrelationships assumed, and finally verified through further investigations. Given a number of case descriptions, and assuming that the descriptors used in each of the cases are comparable, a set of findings can be generated. The cases can be grouped into certain categories and each category may be characterized further. For instance the cases may be classified into "success stories" or "failure stores." Patterns can then be identified according to the frequency of occurrences of certain

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elements in a group, such as: success cases had more technical and communication competent field workers.

The purpose of this study is to identify representative cases of certain categories of NFE related activities/programs/ projects and describe them using a fairly uniform set of descriptor elements and a common heuristic framework. A case in this study refers to an organized activity, program, or project whose intended outcome is/was educational, i.e., change in any or combinations of the following general domains: cognitive, psychomotor skill, and affective. More specifically, it refers to programs/activities that promote learning of information, ability to perform required tasks (competence), or values and attitudes as bases of decisions with desirable consequences.

The Research Problem and Objectives

One may treat NFE as a new framework, a perspective, for viewing what is already existing. It is like changing one's green-tinted eyeglasses with a gray-tinted pair. The things being looked at are the same as before but the perception of them has changed because the tool for viewing them was changed. In going about this study it was assumed that there were indeed existing activities/ programs/projects, whether acknowledged as NFE or not, that perform NFE functions. The question for this study was--in what ways are these existing activities performing NFE functions? Put another way, how is NFE being manifested by these activities? Where can these cases be found? What can be learned from the description of these cases?

Specifically the research objectives for this study have been:

1. To define non-formal education and identify its functions.

2. To develop a scheme for guiding the identification and description of existing cases that could be considered as manifesting NFE functions.

3. To identify, select and describe cases.

4. To identify the lessons that can be learned from the description and analysis of these cases.

Research Procedure

The research has been underway approximately two years. As this summary report is being written, numerous surveys are still ongoing as study projects of graduate students. Three MSU faculty members have participated in the research with some interruptions due to retirement by one and a foreign assignment by another. Six graduate students in continuing education have served as research assistants. More than 20 others have participated for one or more academic quarters, in independent study or as a seminar in Continuing Education. These students came to the regular work-seminars because of their interest in NFE as an area of study and concern. All together nearly 30 graduate students have participated in the investigation with varying roles. Generally the undertaking has been functioning as a component of the program of graduate studies in continuing education of the MSU College of Education.

The study format was largely that of a work-seminar with regular weekly meetings. Documentary research and actual case investigations were done between the seminar meetings. Data for the study have come principally from three sources: (a) program reports from scores of agencies and institutions involved in NFE, (b) formal case studies conducted and reported by others, and (c) case studies conducted by members of the team.

During the early part of the investigation resource persons were invited to discuss research methodology, conceptions of NFE, and expositions of case studies. To supplement local (MSU) materials, letters were sent to approximately 150 addresses, mostly international organizations requesting reports and other publications on activities and programs that could be considered as instances of NFE as defined elsewhere in this report. The response to the letters was substantial although utility of much submitted material was limited due to inappropriateness of scope and framework. Most of the materials received were in the nature of project reports; a relative few were intended by their authors as case studies.

A major problem faced by the team was to develop a working definition of NFE to guide the next step, namely--case inventory and case classification. Flowing from the working definition eight elements were identified as descriptors for describing cases. They were: mission, sponsor, mentors, students, content, media, time and setting. For systematic taxonomy of the cases, a matrix for discriminating programs, principally by the variables of sponsor and mission, was developed. Table I shows in detail the two-dimension matrix. Any case that a team member encounters can be located in this matrix. This device was useful in giving the team a systematic view of the variation in programs/projects and their distribution. Out of this matrix the team, largely on the basis of member interest, selected eight "families of cases." That is, eight column and row items in the matrix were selected and subsequently assumed by team members as sectors of the investigation which each would pursue. Four of the sectors were mission based: (1) Agricultural Development, (2) Family Planning, (3) Literacy, (4) Health and Sanitation; the remaining four were sponsor based: (5) College and University, (6) Voluntary Association, (7) Armed Forces, and (8) Industrial Firms. In effect these eight families of cases constitute case studies themselves. The individual cases compiled under each family can be regarded as sub-sets belonging to the set called family of cases. For example, under the set (family) Comprehensive Agricultural Development, the Chilalo Agricultural Development Unit in Ethiopia, the Puebla Project in Mexico, etc. In each set the sub-sets were compared and analyzed generating patterns, conclusions, and lessons.

A set of criteria was developed to guide the researchers in their selection of specific cases to be included in the family of cases. The criteria were:

1. Purpose/Mission--Is the mission or purpose of the program oriented to development, growth, and the betterment of the living conditions of the people and the country in general?

2. Significance--Does the program contribute substantially toward economic, social, health, and/or educational growth or amelioration of problems?

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TABLE 1.--Toward a Classification System for Non-Formal Education Programs.

Mission \ Sponsor	Educational Institutions	Industry	Religious Communities	Armed Forces	Mutual Benefit Associations	Department of Ministries of Government	International Assistance Agencies	Indigenous Tribal or Other Structures	Other
COMPREHENSIVE PROGRAMS									
Agricultural Development									
Community Development									
Educational Development									
Industrial Development									
Manpower Development									
Other									
SPECIAL FOCUS PROGRAMS									
Agriculture									
Civic Education									
Consumer Education									
Family Planning									
Health and Sanitation									
Home Arts									
Ideology									
Leadership									
Literacy									
Professional Upgrading									
Public Service									
Religion									
Vocation									
Other									

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3. Availability of Information--Are published materials concerning the program available locally, or is it feasible to acquire materials about it?

4. Time--Has the program been in operation long enough to have passed through a series of maturation stages?

5. Continuity--Has the program continued to operate or did it become extinct after a limited period of operation and before it accomplished its mission?

6. Evidence--Does the report provide evidence as the the factors which have contributed to success or failure of the program?

Toward a Contextual Definition of Non-Formal Education

Education is to human resources as development is to natural resources. Each is a complex process through which native potential is realized.

Generally defined, education is the sum of all the experiences through which a person or a people come to know what they know. Experience is encounter, direct or mediated, between a person and his environment. Encounter educes change (learning) in the person; and it produces change (development) in the environment. Learning yields knowledge in the form of cognition (perceived, interpreted and retained information), competence (intellective and/or motive skill) and volition (value, attitude, appreciation or feeling based preferences for acting or reacting). What comes to be known may be intended or unintended and it may be true or untrue; it is simply what is taken (believed) to be true.

In one enormously pervasive sector of education the day-to-day direct and unexamined experiences of living constitute the bases of beliefs, habits, values, attitudes, speech patterns and other characteristics of a person or a people. Such experiences are educationally unintentional; but they are nonetheless powerful. The results are so common and they are produced so completely without awareness or intent that they are commonly thought to be "natural" or "inherent." The fact is, of course, that they are learned. They constitute incidental education.

The same or similar experiences may be consciously examined
and deliberately augmented by conversation, explanation, interpreta-
tion, instruction, discipline and example from elders, employers,
peers and others, all within the context of day-to-day individual and
community living. Such examination and augmentation may be intended
as educative, but the experiences themselves usually are not con-
sciously contrived to be so. Such augmented real life experiences
constitute informal education.

What is more commonly called education is much more inten-
tional and systematic. It involves deliberate selection and
systematic structuring of experiences, direct or mediated, and the
establishment of explicit missions, roles and patterns of operation.
Sooner or later it is likely to become the socially assigned function
of a school or a system of schools.

Such an intentionally devised educational system has three
primary subsystems, each having two major components:

1. Organizational
   A. Mission: The legally and/or consensually
   established framework of intention within
   which particular purposes, goals and
   objectives are evolved and pursued.

   B. Sponsor: The political, religious, industrial and/or
   other institutional complex which initiates,
   supposts and governs the enterprise and
   within which operating institutions (often
   schools) are established, legitimized
   and managed.

2. Human
   A. Mentors: The personnel, whether specially trained
   and certified or not, who teach, counsel,
   administer and otherwise staff the
   enterprise.

   B. Students: The participants whose cognition,
   competence and/or volition are to be
   educed.

3. Curricular

    A. Content: The body of knowledge (information, competence and/or preference pattern) which students are expected to learn.

    B. Media: The materials, equipment, plant and processes by means of which direct or vicarious experiences are provided for participants.

To the extent that an education system is firmly committed structurally and/or substantively and tends to constrain its human and curricular components to its own stability or maintenance requirements it represents _formal education_.

To the extent that it is not firmly committed structurally and/or substantively and is either created or adapted as a system to accommodate to the requirements of specific mission or new components, whether organizational, human or curricular, it represents _non-formal education_.

We conclude that:

Non-formal education is any intentional and systematic educational enterprise (usually outside of traditional schooling) in which content, media, time units, admission criteria, staff, facilities and other system components are selected and/or adapted for particular students, populations or situations in order to maximize attainment of the learning mission and minimize maintenance constraints of the system.

Non-formal education is discriminated from incidental and informal education in that it is intentional and systematic. More significantly, non-formal education is distinguished from formal education not by the absence, but by the non-centrality, of form--by the persistent subordination of form to mission.

Non-formal education has many variations, each with its unique characteristics. Several of those characteristics, while not universal and therefore definitive, appear so frequently that they clearly deserve to be noted:

1. It is not likely to be identified as "education."

2. It is usually concerned with immediate and practical missions.

3. It usually occurs outside of schools; any situation which affords appropriate experiences may be employed as the learning site.

4. Proof of knowledge is more likely to be by performance than by certificate.

5. It usually does not involve highly organized content staff or structure.

6. It usually involves voluntary participation.

7. It usually is a part-time activity of participants.

8. Instruction is seldom graded and sequential.

9. It is usually less costly than formal education.

10. It usually does not involve institutionally prescribed admission criteria; potential students are those who require the available learning or who are required by the situation to have it.

11. Selection of mentors is likely to be based more upon demonstrated ability than on credentials; and voluntary leaders are frequently involved.

12. It is not restricted to any particular organizational, curricular or personnel classification; and it has great promise for renewing and expanding any of them.

13. It has potential for multiplier effects, economy and efficiency because of its openness to utilize appropriate personnel, media and other elements which may be available in a given situation without concern for externally imposed, often irrelevant and usually expensive criteria and restraints.

CHAPTER II

A CATALOG OF CASES AND ABSTRACTS

In order to provide an overview of the detailed descriptions presented later, this chapter consists of a short listing of cases surveyed, along with abstracts of the detailed studies.

List of Specific Cases Surveyed

A. Agricultural Development

Name	Objective/Mission	Location & Date
1. Rice Production Improvement	1. To improve the production of rice in the area by introducing improved techniques of rice cultivation. 2. To strengthen the already existing agricultural cooperation and coordination between the Royal Office of Cooperation, and the Agricultural Extension Service, and the USAID.	Cambodia, 1960's
2. Introduction of Vegetable Growing	To introduce vegetable growing as a source of supplementary income and for consumption and nutritional improvement of the people.	Orissa, India, early 1950's
3. Case Study of Extension Effort in Popularizing the Olpad Threshers in Delhi Villages	To popularize the threshers through demonstration of its relative economic advantages and savings in time in the villages.	Kanjhawalla Community Development block in Delhi State, India

Name	Objective/Mission	Location & Date
4. A customary System of Reward and Improved Production Techniques	To compare the reaction of these two villages towards the introduction of the Japanese method of rice cultivation.	Wangala & Dalena in Mysore State, India
5. A strategy for Introducing a Small Irrigation Project	To construct an irrigation dam as a means of providing a reliable water supply to sustain a good crop.	India, 1953
6. An experiment in extension	To train professionals especially agronomists to prepare them for extension work and to prepare female personnel to carry out rural home economics programs.	Uraguay, 1940's
7. The "Train-the-Trainers" Approach in Comminication Training: The Adeco Course	To train Latin American extension workers in the best known principle and methods of transmitting new farming ideas and practice to the ultimate users.	San Jose, Costa Rica, mid 1950's
8. Checking up: A Maize Fertilizer Campaign	To increase maize yields through fertilizer demonstrations on government maize farms.	Accra, Ghana
9. The Puebla Project in Mexico	1. To develop strategy for rapidly increasing yields of basic food crops among small landholders. 2. To train technicians from other places on the strategy developed. 3. To increase the maize production of the farmers in Puebla.	Puebla, Mexico, 1967
10. The Chilalo Agricultural Development Unit (CADU)	1. To improve the living conditions of the small farmers. 2. To evolve a methodology of agricultural development with a view of replicating the lessons to other areas. 3. To train Ethiopians for development work.	Ethiopia, 1967

Name	Objective/Mission	Location & Date
11. The Pakistan Academy for Rural Development	1. To test strategies and tactics to modernize traditional farming. 2. To serve as a laboratory for training government officials for rural development work.	Bangladesh, 1960.

B. Manpower Development in the Urban Sector

Name & Location	Sponsor	Mission
1. Christian Industrial Training Center, Nairobi, Kenya	Church Missionary Society	The training of local teenagers for employment as artisans in Kenya's industry.
2. Opportunities Industrialization Center, Lagos, Nigeria	U.S. Agency for International Development	To provide training in locally needed skills for those unable to find employment and thereby promote small business enterprise.
3. The Oldsmobile Apprentice Training Program, Lansing, Mich.	The Firm	To train employees and some non-employees as journeymen in crafts useful to Oldsmobile operations.
4. The Management Training and Advisory Center, Campala, Uganda	1. UNDP 2. The National Trading Corp.	To offer management education to Ugandans at all levels and to build up an internal training cadre.
5. The Small Scale Industries Development Association, India, 1954	Central Government	To assist in and coordinate the work of state governments in developing small industries.
6. The Hong Kong Productivity Center, 1967	Hong Kong Productivity Council	To cultivate interest in, to assist the study of and collect and disseminate information regarding productivity.

Name & Location	Sponsor	Mission
7. The American Management Association, U.S.A.	Self-supporting body. Derives some of its money from conference and members fees.	To exchange information and promote scientific research into basic and advanced principles of management.

C. Literacy: Internationally Sponsored Programs

Name	Location	Date Begun
1. Experimental World Literacy Program	Algeria-Sradueli Bon Nawonssa	1967
2. Experimental World Literacy Program	Mali	1967
3. Experimental World Literacy Program	Ecuador	1967
4. Experimental World Literacy Program	Sudan	1969
5. Experimetal World Literacy Program	Zambia	1971
6. Experimental World Literacy Program	Brazil	1968
7. Experimental World Literacy Program	Iran	1967
8. Experimental World Literacy Program	Somalia	1954
9. Experimental World Literacy Program	Afghanistan	1969
10. Work-Oriented Literacy Project	Tanzania	1968
11. Work-Oriented Literacy Experiment	Iran	1967
12. Work-Oriented Literacy Experiment	Madagascar	1968

Name	Location	Date Begun
13. Work-Oriented Literacy Experiment	Ethiopia	1968
14. Work-Oriented Literacy Experiment	Guinea	1968
15. Work-Oriented Literacy Experiment	India	1967
16. Work-Oriented Literacy Experiment	Iran	1967
17. Fundamental Adult Literacy and Community Education in West Indies	Port Pierce Louis	1952
18. Functional Literacy Program	India	1968

Literacy: National Government Sponsored Programs

Name	Location	Date Begun
1. Adult Education	Malaysia	1961
2. Adult Education	West Pakistan	1967
3. Adult Education	India	1956
4. Adult Education	Ceylon	1969
5. Adult Education	Jordan	1965
6. Adult Education	India, Mysore State	1940
7. Adult Education and Functional Literacy	India: Hyderabad	
8. Adult Literacy Program	Malaysia	1961
9. Argo-Mind Study-- Industrial Program of ABB	Chicago	1966
10. Budu Community Development Scheme	Barawak	1954
11. Functional Literacy	Algeria	
12. Functional Literacy	India	1967

Name	Location	Date Begun
13. Literacy Program	Iran	1969
14. Literacy Program	Kuwait	1958
15. Literacy Project	Burma	
16. Literacy Project	Cambodia	1963
17. Literacy Project	West Pakistan	1954
18. Literacy Project	Syria	
19. Literacy Television Project	Arab Republic of Egypt	1972
20. Mass Literacy Drive and Regular Literacy Course	Indonesia	1952
21. National Literacy in the Khmer Republic	Khmer Republic (formerly Kingdom of Cambodia)	1965
22. Rural Women Program	Tunisia	1968
23. Television Program	Tunisia	1968
24. Television Program	Tunisia	1968
25. Workers Program	Tunisia	1966
26. Yangyi Commerce	China (Mainland)	1950

Literacy: Local or Regional
Government Sponsored Cases

Name	Location	Date Begun
1. Literacy Program	Kenya	
2. Literacy Program	Gujarat, India	1947
3. Literacy Program	Southern Cameron (Bawenda)	
4. Literacy Program	Kuwait	1958
5. Literacy Project	Italy	1947
6. Literacy Project	Malta	1946
7. Literacy Project	Syria	

Name	Location	Date Begun
8. Adult Education	Nigeria	1946
9. Adult Education	India, Mysore State	1940
10. Adult Education	Bangladesh	1964
11. Adult Education	Philippines	
12. Adult Education	Jordan	1965
13. Adult Literacy	Jamaica	1962
14. Adult Literacy Program	Zambia	1964
15. Adult Literacy Program	Malaysia	1961
16. Basic Education, Adult Education Service	Canada	1965
17. Bunyoro Literacy Campaign	Uganda	1961
18. Mass Literacy Functional Literacy	Cuba	1961
19. Mass Literacy Drive and Regular Literacy Course	Indonesia	1952
20. Functional Literacy Program	Nigeria	1967
21. Head Start Parents' Adult Basic Education Project	New York City	1967
22. National Campaign for Literacy & Cultural Promotion of Adults	Spain	1963
23. National Campaign for Literacy & Cultural Promotion of Adults	Mexico	1966
24. OEO Seasonally Employed Agricultural Worker Educational Project	Alabama	
25. Project ENABEL	U.S.A.	1969
26. Project "Impact"	Brazil	1948
27. Television Program	Tunisia	1968

Name	Location	Date Begun
28. Title VII, Project No. 417, National Defense Education Act, 1958	Alabama, U.S.A.	1960
29. Worker's Program	Tunisia	1966
30. Work-Oriented Adult Literacy Project	Sudan	1948

Literacy: University Sponsored Cases

1. Adult Basic Education	Missouri and Texas	1963
2. Adult Education	a. Fore	
	b. Afzora	
	c. Kawite	
	d. Daga	
	3. Wahgi, New Guinea	1963
3. Adult Literacy Program	Tanzania	1971
4. Functional Literacy for Tobacco Growers	Nigeria	1967
5. Project ENABEL	Michigan	1969

Foreign-Mission Sponsored Cases

1. Adult Literacy Program	Liberia	1946
2. Adult Literacy Program	Uganda	

Local Missions

1. Coptic Evangelical for Social Services (CEO)	Egypt	
2. Yemissrach Dimt Literacy Campaign	Ethiopia	1962

D. Health and Sanitation

Name and Date Founded	Mission
1. The Healthy Village, West China, 1949	Preparation of audio-visual material
2. The Akufo Village Scheme, Nigeria, 1965	Training medical students in community practices.
3. Health education in Upper Egypt, 1952	Health education campaign
4. Health education in Industry, Yugoslavia, undated	Health education program in a factory
5. Pilot Project in Egypt, 1951	Community health, education and action
6. A programme of Health Education in Uganda, 1951	Community health education
7. Audio-Visual Aids in a Health Education Program of a Christian Mission, India, undated	Training missionaries in health education and practices
8. Maturiki: a pilot project in community development, Fiji Islands, Pacific, 1952	Community educatio. in sanitation
9. An experiment in community development, Tanzania, 1951	Training course in health practices for community leaders
10. The Pholela Health Center, South Africa, 1951	Health Center and community health education
11. Health Education Program in Puerto Rico, 1952	Development of health education program for schools and communities
12. Two Experiments in Brazil, undated	Retraining of health educators
13. Rural Health Demonstration and Training Center, Philippines, 1952	Identifying community needs for a Health Education Center

Name and Date Founded	Mission
14. Organization of medical care for industrial workers, Delhi, India, 1952	Medical services and education for workers and their families
15. The New Brodno Hospital, Warsaw, Poland, 1972	Organization of services and educational programs for patients
16. Promoting Health Engineering in India, 1958	Research center for data collection and training of personnel
17. "Happy Lion" Dental Health Campaign, England, 1969	Dental health campaign for children
18. Experimental Community Mental Health Scheme, South Africa, 1950	Mental health center for out-patient treatment and rehabilitation
19. The Congo Experiment, Congo, 1960	Training medical assistants to become doctors
20. An Adventure in International Collaboration, Tennessee	Developing programs for graduate and undergraduate medical students
21. Rural Health Unit and Training Center, India, 1966-67	Training and action in environmental sanitation
22. Urban Health Center, Calcutta, India, 1966-67	Health services and health education
23. Home Care Program for the Chronically Ill, Pureto Rico, 1966	Home care and education program for chronically ill patients
24. Health Care of Railway Employees in Allahabad, India, 1971	Health services for railroad employees
25. Rat Poisoning Program in a Rural Area, India, 1969	Education and action campaign in rat control
26. Summer Camps for Children's Health Education, Poland, 1964	Health education in a summer camp
27. Crystal Palace National Recreation Center, England, 1964	Leadership training for community recreation

Name and Date Founded	Mission
28. Integration of Chinese traditional and modern medicine, China, 1953-65	Integration of traditional and modern medicine
29. "Mobile Units" anti-smoking campaign, London, 1963-64	Anti-smoking education campaign
30. "Well Women" Clinic, Norwich, England, 1967-68	Publicity campaign for cancer diagnosis in women
31. Infant Feeding Program, Morocco, 1961	Education for mothers and feeding for infants
32. Acceptance of Sanitary Composting in a Rural Area: A Case Study, India, 1969	Study of effect of education: acceptance of sanitary composting practices
33. Dental Health Education, Trailer, England, 1961	Dental Health education
34. Developing a Community Laboratory for medical teaching program. A Case Study, Kentucky, U.S., 1966	Community based medical teaching
35. Project HOPE, Washington, D.C., U.S., 1921	Professional continuing education for physicians and paramedics in various countries
36. National Society for Crippled Children and Adults, Chicago, U.S., 1921	Promote research and public education
37. American Cancer Society, New York, U.S., 1913-1973	Promote research and public education
38. Family Day Care, Potential Child Development Service, California, U.S., 1971	Demonstration education in child development services
39. Health Education for Organized Groups of Adults, Minnesota, U.S., 1965	Health education for older adults
40. Development of a Health Education Program, Northern Mexico and Arizona. 1940	Development of a health education program

Abstracts of the Individual Reports

Each of the eight families of cases has been reported upon in a series of monographs. Abstracts of those reports are provided here. For details, appropriate reports should be consulted.

1. Non-Formal Education for Rural and Agricultural Development

Purpose is to examine non-formal education in agricultural production oriented programs. Eleven selected projects were examined, emphasizing their explicit educating functions and other less explicit educational dimensions. Guiding question was, "what are the educational elements that are manifested in these rural development programs and what are their implications for designing non-formal education systems?"

A scheme for classifying the samples is presented. The samples were grouped and regrouped according to region, content of change, program objective, scope, methods and procedures, organization and sponsorship, and result. Lessons from the eleven cases were abstracted and identified. Factors were systematically assigned as either change facilitating or change inhibiting.

A non-formal education perspective of rural development is presented. Paper offers a critique of basic assumption underlying all programs examined, i.e., that of a mechanistic process of ideas, knowledge or technology transfer. Suggests an alternative Friereian notion of knowledge transformation, and adaptation; emphasis on the act of knowing rather than knowledge and on process and people rather than product.

2. Non-Formal Education in Health and Sanitation

A general description of non-formal education related to health and sanitation in less developed countries. Forty different programs around the world were studied to arrive at some conclusions

and recommendations related to the field of health and sanitation and their implications for non-formal education.

A wide variety of programs was found. They were analyzed in terms of resources used, participants, facilities and immediate results.

Some general conclusions:

1. Education is generally not the main objective of the program but the relief of pain, saving of life or community action.

2. Health campaigns and community action programs showed positive results in developing attitudes and taking action beneficial to health of individuals, families and communities.

3. The most common need of developing countries is the retention and better preparation of medical students and other health personnel in community practices.

Some recommendations to the planning of N-F education programs are concerned with the better understanding of the people, their culture, their ideas and socio-economic factors which affect their lives.

3. Survey of Literacy Programs: Their Implications to NFE

Examines more than 80 Adult Literacy Programs found in all regions of the world. These programs are of two kinds: (a) traditional literacy programs, and (b) functional literacy programs. Provides socio-economic rationale, location, participants, mission, substantive content, mentors, and mode of delivery. Findings include: (a) the importance of participant motivation for a program to succeed; and (b) the differential impact of traditional and functional literacy programs.

4. The Non-Formal Education Component in Family Planning Programs

The report consists of three separate works that vary in their geographic scope, intent, and research procedure. The first one traces the growth and development of family planning

acceptance in both developed and less developed countries. The findings include information about communication campaigns or techniques used in promoting the acceptance of various means of contraception.

The second report is confined geographically to Africa. Its focus is to describe the traditional, indigenous value systems and means of transmitting practices related to fertility and child bearing.

The third report is a case study of a local county family planning program in the State of Michigan. The case was described using the following analytical framework: (1) antecedent events; (2) problem-situation; (3) creation process; (4) organizational structure; (5) doctrine; (6) resources; (7) personnel; (8) programs; (9) people served; (10) evaluation; and (11) interinstitutional linkages.

5. Non-Formal Educational Programs Conducted by Higher Education Institutions

A study of the "Extra-Mural Programs" of the University of Nigeria. Presents a participant observer's account of the university's role(s) in developing extra-mural programs within the university setting. Examines the historical development of extra-mural activities within formal institutions in Nigeria. A philosophical and pragmatic outline of the planning and goal-setting processes for non-formal educational ventures within the formal institutional setting of higher education.

6. Manpower Development in the Urban-Modern Sector

A study of the practical aspects of manpower development in the urban-modern sector. Includes a survey of the literature, focusing on both developing and developed nations regarding manpower development. Emphasis upon prevocational and early-vocational training for illiterate and semi-literate workers, supervisors, and

administrative personnel. Promising programs and techniques are
described, as are data useful in evaluating non-formal education in
this sector. In general, findings are encouraging in regard to more
literate and advanced students in Non-Formal Education programs;
regarding the unemployed and out-of-school youths, the findings are
not encouraging, but suggest directions for future programs and
studies.

7. Armed Forces as Non-Formal Educational Institutions

Paper has 4 parts: (a) introduction, (b) historical overview
of the use of military for national socio-economic development,
(c) present developmental activities of national armed forces--called
"civic action," and (d) an annex which contains three case studies
of specific instances of armed forces functioning as non-formal
educating institutions.

Argues that the armed force of any country can be used as an
instrument of national development in time of peace and that national
policy should provide that armed force resources (professional
personnel, equipment, facilities, influence, expertise, etc.) can be
tapped to serve civilians and the whole community. Also argues that
the armed force can be part of a total national system for non-formal
education as well as beneficiary of non-formal education.

Concludes with an optimistic note--"the potential for peaceful
uses of military forces in bringing about socio-economic change is
practically unlimited."

8. Voluntary Association

Basically an essay on voluntary associations, suggesting
that these social organizations are currently engaged in a wide
variety of educational programs and therefore should be considered
as a NFE resource in a given community. Has a good coverage of the
literature on organization behavior particularly community-based
service organizations.

CHAPTER III

NON-FORMAL EDUCATION FOR RURAL AGRICULTURAL
DEVELOPMENT

by

Rogelio V. Cuyno

Introduction

Rationale and Purpose
of the Research

In the past the agricultural sector of a country has been
relegated to the sidelines in favor of the industrial or urban segment.
The theory was that a country needs a nerve center--industry or urban
communities--to generate goods and services as well as a changing
climate which in turn can stimulate production and economic activities
in the villages. Industry and urban communities were thought to pro-
vide employment and absorb surplus manpower from the farming communities.
As labor forces in the villages decrease, those that remain will then
have to resort to a more efficient means of production, and unit pro-
ductivity will consequently increase. So goes the argument. The use
of Gross National Product (total goods and services produced and
marketed in the country) as a measure of developmental growth is an
outgrowth of this policy of national development. The assumption is
that if we take care of GNP, poverty will take care of itself,
unemployment will be eliminated, and income will be redistributed later
through fiscal means.[1]

What happened with this policy? On the average the LDC's have
met the 5% GNP growth standard set by the UN for the first development
decade, but the policy failed to end poverty, eliminate unemployment,
or redistribute income adequately. Robert S. McNamara says

> current development programs are seriously inadequate. They
> are inadequate because they are failing to achieve development's
> most fundamental goal: ending the human deprivation in
> hundreds of millions of individual lives throughout the
> developing world.[2]

Further evidence of the failure of the past policy is the ever widening
gap between the income of the few haves and that of the majority have
nots.[3]   McNamara goes on to say that significant advances in the
quality of life for the majority of the peoples of the LDC's are not
guaranteed by increases in GNP because it is not reaching the masses
of people that are poor. As R. Weitz, a development expert, says,
"the most reliable criterion for judging success of a development
plan is the condition of the 'little man.'"[4]

Another manifestation of the failure of the policy is the
birth of 'dualism' in the world, the existence of the affluent and
the poor, two separate social and economic systems developing within
a given country. Weitz says that "there can be no salvation as long
as these two totally unintegrated systems fail to interact."[5]

There has been a recent backlash against overemphasis on
industrialization and urbanization and increasing attention toward
accelerating the development of the rural agricultural sector. We
are now hearing with greater frequency the theme of "development with
social justice"[6] and the assertion that "a prior condition for any
development is an accelerated development of the agricultural sector,
that is an increase in scope and efficiency of agricultural production."[7]

The Organization for Economic Cooperation and Development's
(OECD) renewed thrust in integrated rural development in its inter-
national assistance program reflects this trend in national development
policy. Three reasons are offered for the emphasis on integrated rural
development. They are: (1) around 70% of the developing country's
population live in rural areas; (2) if rural development can reduce the
inequalities in income, opportunities, and amenities between town and
country, it will then be able to slow down migration to the major
cities; and (3) there is a need to increase agricultural output for
food and for raw materials for local industries.[8]

One strategy being explored to accelerate rural development
relates to the role that education should take in the total effort.
One area in education which has been neglected, possibly an offshoot of
the past policy favoring industrialization and urbanization, is the

education and learning occurring outside of the formal schools. This area of instruction has been referred to recently as non-formal education. (We will provide a conceptual definition of this term in the latter part of this introductory section.) Several international assistance donors such as the World Bank, the UN, USAID, and other OECD member countries are financing investigations of this form of education because of the belief that this type of education "will make more direct and less costly contributions to rural development."[9]

The purpose of this study is to contribute to the knowledge base of Non-Formal Education, by inquiring into existing instances of this form of instruction within the so-called agricultural production programs, projects, or activities. We will select a few agricultural production and community oriented improvement projects and describe them using certain convenient descriptors. The perspective we will use for examining these cases will be defined in the section on research framework. Hopefully we can demonstrate the fact that the so-called agricultural development programs have non-formal education dimensions, which present a potential strategic point for approaching rural development.

Statement of the Problem and Research Objectives

Numerous studies of rural development, community development, extension education, etc. projects have been conducted and reported the world over. Most of these studies were done by agricultural economists, sociologists, and cultural anthropologists. They yielded findings that are now part of the body of knowledge in diffusion of innovation, development economics, cultural and social change, and development administration. What is lacking in most previous studies is the lack of focus on the educational or educating dimension of the projects studied. Educational issues are seldom raised. Variables in education are considered irrelevant or unimportant, or they are just taken for granted. If these educational variables are collected in the study, they are not conceptualized as educational variables but as economic, administrative, or innovative variables.

The problem of this present study is to determine what are the educational elements that are manifested in rural development programs and to extrapolate from these elements the knowledge necessary for planning and implementing programs with non-formal educational components.

More specifically the objectives of this study are: (1) to describe the situation that existed when the projects were initiated and the objectives of these projects, (2) to describe the way the projects were organized, their activities in the field, their work patterns, and their outcomes, and (3) to identify the lessons that can be learned from the projects and point out their implications to planning and managing non-formal educational dimensions of rural development programs.

The Conceptual Framework

The pervasive assumption in this present study is that the projects that are examined do perform, consciously or unconsciously, an educating function of a certain type. We shall refer to this type as NFE, defined as "any intentional and systematic enterprise, usually outside of traditional schooling, in which content, method of instruction, time units, admission criteria, staff, facilities and other system components are selected and/or adapted to serve particular students or situations, to maximize attainment of specific learning missions."[10] The universe of NFE objectives includes all learning in out-of-school situations--in the farms and homes, in youth or adult activities, in military training, in social and political organizations, on the job in private industry and in natural environments.[11]

In terms of an idealized system we conceive of NFE as having three subsystems which are interdependent and interacting. They are:

1. Institutional Subsystem

   A. Mission   The legally and/or consensually established
                 framework of intention which constitutes the
                 raison d'etre of the system and within which
                 particular purposes, goals, and objectives
                 are evolved and pursued.

B. Sponsor   The political, religious, industrial and/or
               other institution which initiates, supports,
               and governs the enterprise and under whose
               auspices operating units (often schools)
               are established and managed.

2. Participant Subsystem

A. Mentors   The personnel, whether specially trained and
               certified or not, who teach, counsel,
               administer, prepare materials, and otherwise
               staff the enterprise.

B. Students   The participants whose cognition, competence
               and/or volition are to be educed.

3. Curricular Subsystem

A. Content   The body of knowledge (information,
               competence and/or preference patterns)
               which students are to learn.

B. Media   The materials, equipment, plant, and
               processes by means of which direct or
               vicarious experiences are transmitted.

Methodology and Limitations
of the Study

The strategy used for generating information for this research
is the case study approach. Case study is an approach to get multi-
measures on a single unit (case). For each case, specific elements
are searched and described. The cases are then compared with specific
reference to these elements and conclusions are established from the
comparisons.

The source of information has been published reports and books
about the described projects. This presents a serious limitation for
the study. The limitation lies in the lack of specific information
consistent with the analytic structure set out above. Another limita-
tion is the variability in the perspective taken in the reporting of
the projects. Some were written from an anthropological perspective,
others used the framework of sociology, and still others described the
projects from the point of view of rural development administration.
This posed a difficult problem in making across-the-board comparative

analyses. In terms of errors of perception it is admitted that there is probably a multiplication of errors as "reality" is seen and passed on through many hands. Such a weakness is inherent when one deals with secondary data.

Another aspect of methodology is the sampling of cases. There was no attempt to be exhaustive or very systematic in selecting cases in as much as we are constrained by availability of reported information. In spite of this constraint we tried to select cases that would represent frequently encountered and meaningful situations applicable to the lesser developed countries. We were more concerned with obtaining a wide range of situations that would provide useful information for the planning and administration of rural development programs than in examining a large number of cases of a given typology. We feel justified in doing this in order to insure the reliability of our conclusions. The effect of increasing the number of cases by an arbitrary figure would be negligible in relation to the large universe of rural development projects the world over. In other words we tried to sample for horizontality or spread of situation rather than for verticality or internal consistency.

The Context of the Projects (Cases)

The nature of the rural agricultural development projects that were examined in this research can best be understood if the reader is reminded of the context within which they were functioning. We will identify and discuss three aspects of context, namely: the sub-culture of peasantry, the agricultural production system, and the conception of rural development.

The Sub-Culture of Peasantry

Those engaged in the practice of human development assistance are often counseled by communication experts to know the audience; by education experts to know the students; by planned change experts to know the client or target population. In this study we assume that the audience, clientele, and students we are dealing with are peasants who

have their own culture. It is well documented in anthropological and sociological literature that the response of peasants to change programs is closely tied to certain cultural factors.

It should be recognized that there is a tremendous variation in the cultural and historical background of village life cross-culturally. Rogers cites anthropologist Tax's statements on the principle of diversity:

> Each continent and each region has its own kinds of peasant communities, and in the end, of course, every one is unique. . . . The first advice one offers the administrator of a program is to know the place and the people and the character of the culture.[13]

The converse of this principle of diversity is also true, as Rogers says, "Peasants have certain sub-cultural similarities in common which seem to hold true across countries."[14] What are some of these similarities? Lewis (as cited by Rogers) describes a Mexican peasant named Pedro Martinez as typical of the peasant culture:

> He shares many classic peasant values--a love of the land, a reverence for mature, a strong belief in the intrinsic good of agricultural labor, and a restraint on individual self-seeking in favor of family and community. Like most peasants, he is also authoritarian, fatalistic, suspicious, concrete-minded and ambivalent in his attitude toward city people.[15]

Rogers in his own analysis refers to these characteristics as manifestations of peasant motivations, values, and attitudes. To the list of elements in the sub-culture of peasantry described by Lewis, Rogers adds lack of innovativeness, low aspiration level, lack of deferred gratification, limited time perspective, dependency upon government authority, and lack of empathy.[16] He synthesized these elements from data principally reported from Latin America--and additional information from Africa, Asia, and the Middle East.

The socio-economic condition of the peasant also provides some elements which are relevant to our understanding of peasant life. Although recognizing that poverty is not synonymous with peasantry, Lewis (as cited by Rogers) identifies the following universal elements about poverty which are also characteristics of peasant culture:

provincial orientation, lack of integration into national institutions, low formal participation, and a constant struggle for survival.

To conclude, when we speak of the sub-culture of peasantry and when we identify the modal characteristics of peasants, we don't mean that these elements are disjointed and independent of each other. A culture is a system whose elements are functionally interrelated in consistent harmony.

In showing the profile of peasant life we are not suggesting to the non-formal educator, the agent of change, or the extension worker that he should not bother to systematically and sensitively find a cultural uniqueness of the village that he is working in. We are merely providing a map to assist the worker in getting around the territory and are introducing conceptual labels which may be useful in data gathering, data ordering, and the interpretation of such data.

The Agricultural Production System

The peasant way of life is obviously related to the main source of his life's sustenance, the land. The purpose of this section is to provide the reader with an understanding of the agricultural production system which produces for the peasants, food and shelter and around which revolves their way of life. There is something unique and funda-mental about agriculture as a production system. Anybody who desires to intervene in it, presumably to make it more productive or efficient, must have a thorough understanding of its characteristics.

Mosher and Hill, constant leaders in agricultural development, write that agricultural production is not a mechanical process but one of facilitating biological growth under almost infinitely varying conditions. It is very different from factory production in which it is possible to control within narrow limits the quality and quantity of its input and output. Instead, agriculture is carried on in varying climates under fluctuating weather conditions, drawing upon the supply of the variables of plant nutrients and soil moisture; crops and live-stock grown and raised therein are subject to pests, disease, and other hazards.[17] The basic process, then, in agriculture is the management of biological growth.

Agriculture, however, is an activity of human beings, of people. It is people who make decisions on the farms, who learn new skills, adopt new practices, till the land, and manage the livestock. They are simultaneously the laborers and the managers. They are also at the same time members of families, communities, societies, and cultures who derive much of their satisfaction in life from the degree to which they are accepted, respected, and loved within these groups.[18]

The family farm is the basic unit of organization for production. The family provides the main labor, and it has its own internal management system for production. Peasant agricultural production depends on a large number of individual producers who are inextricably tied to the soil and to traditional institutions. Their technology of production is perhaps primitive in relation to modern methods, but it is tested and proven for the local condition. Their technology is the product of the wisdom of the ages, and the worker knows exactly how to use it. The peasant farmer is also a rational person. He knows how to manage his resources and is able to make both ends meet even under conditions of great constraint.

Guy Hunter (1969) points out that

> There is at least one part of education which the peasant farmer has already, despite illiteracy. . . . Within the means at his disposal, he has the skill of managing his land and crops, handed down with small amendments from father to son through many generations. As with many traditional skills, it will take an agricultural economist quite some research to put on paper all the possible choices and constraints of his farm management and to plot an optimum from them; only to find out[19] that it is often the same course which the farmer has chosen.

Objective of Rural Development

How different would we like the peasant, his agriculture, and his village life to be? This is a difficult question because the answer involves philosophical and moral judgments. But any change agent should have a vision of the end-state that he would like to see reached by the people he is trying to help.

Dr. Mosher seems to provide a succinct summary of what could be the objective of rural development: *Is the objective of rural development to increase satisfaction, economic and non-economic,*

of rural living?[20] There are several implications of this statement.
Mosher continues by explaining that increasing agricultural pro-
ductivity is an important part of increasing the satisfactions of
rural living, for this could mean more adequate food and additional
income. Some aspects of satisfaction in rural living, according to
Mosher, are largely independent of family incomes.

From the peasant farmer's point of view, increased satisfaction
of rural living could mean pride in being able to raise more and
healthier livestock, at being able to grow "two leaves where there
was one before," at being able to sell farm products, and being
able to buy his family new clothes or a transistorized radio. When
he grows more sophisticated, he will find fulfillment in his increasing
ability to manipulate his resources for optimum gains and to get around
natural constraints. Seeing his children become better-off materially
and socially than he is, is a tremendous source of pride and motivation
to a peasant farmer. He finds consolation and self-redemption in the
success of his children.

What about village life? One of the consequences of past
national development schemes which emphasizes the industrial and urban
areas was the neglect of village life. The objective of the past
design of national development implies that people have to escape from
village life and join the more dynamic economic mainstream in the towns
and cities. This, in fact, has occurred, resulting in the clogging of
the cities creating unmanageable problems for city governments.

Our present formulation of rural development does not suggest
that villagers escape village life but that the satisfaction they derive
from living there be increased. A model of progressive village life may
look something like this: (1) high level of peoples' participation and
cooperation in community affairs; (2) strong feelings of community,
togetherness, and loyalty to each other; (3) enough differentiation in
the community structure to produce a variety of activities (farming,
trading, crafts, business, profession, etc.); (4) availability of
community services and utilities such as school, religion, light and
water, governmental services in health, communication, extension, etc.;

(5) accessibility to market and cultural and economic centers;
(6) existence of cultural and recreational facilities; and (7) more
uniformly clean and sanitary homes and public places. In summary we
want to see the village community help the residents satisfy them-
selves economically, socially, culturally, recreationally, and
politically.

Taxonomy of the Sample

One level of descriptive analysis is classification. Through
some sort of classificatory scheme we can account for all the elements
that are brought to our attention for analysis. Taxonomic work can
begin by examining the variation of the elements, individuals, and
cases to be included in the analysis. From here the taxonomist can
develop general labels and sub-labels under which the elements may be
classified. A frequency distribution can then be determined which can
tell us the loading of the elements on the various cateogries. This
level of descriptive analysis can roughly show a gross profile of what
sort of data we have. This can then indicate, although in a limited
way, the territory that we are discussing.

For the present taxonomic exercise of 11 sample agricultural
projects, we shall use eight general lables as descriptors. These
descriptors are: regions where the cases exist, the type of change
being encouraged (content), the objectives of the projects, scope
methods or procedures used, the organizations responsible for the
project, their sponsorship, and the results as they are reported by
our sources.

Region

It is understandable that in the world today most planned change
or intervention programs in agriculture are in the lesser developed
countries. This is because the economy and basic life activities of
these countries are agriculturally oriented. The lesser developed
countries exist predominantly in Asia, Latin America, and Africa. Six
of our total sample are from Asia, three are from Latin America, and
two are from Africa.

The Type of Change (Content)

The process of agricultural change always has content. What we call content here is referred to in sociological and communication literature as the innovation. Most of the cases we have looked at (seven) are about crops. Specifically, they consist of the introduction of a new or improved seed, a new crop, and improved cultural practices like use of fertilizer, pesticides, or new methods of planting. There are two projects that tried to introduce small implements, all developed within the country. Two other projects are concerned with putting up infrastructure facilities, an irrigation dam and an irrigation ditch for flood control.

The change that we are talking about does not refer simply to material things but to a change in behavior as well. This change in behavior is not limited to the clients but includes also the change agents. Five of the eleven cases examined have the intent of training the change agents or providing them with a realistic learning experience in technical knowledge as well as in extension, communication, and pedagogy.

Program Objectives

Program objectives simply mean the goals which the project expects to attain. Eight of the projects were established to increase the productivity of crops; five were partly designed to improve the quality of the change personnel; three were designed to establish a rural development administrative machinery; four projects were intended to popularize an innovation; two are infrastructure projects (irrigation dam and ditch). Let us be reminded that the sub-categories are not mutually exclusive. For instance a project with the object of increasing crop productivity also incorporates the objective of staff development and the improvement of rural development administration.

Scope

Scope simply refers to whether a project deals with only one type of innovation or whether it deals with several in a single program. Seven projects are singular type projects, i.e., crops,

implements, or infrastructure. Three projects are considered compre-
hensive types because they deal with several innovations simultaneously,
such as: simultaneous introduction of farmers' cooperative movements,
new crops, better health and sanitation, community development, etc.

Methods and Procedures

Methods and procedures are the means used by the agent of change
to mediate the content of change to the target population. The
demonstration of results, advantages or benefits of the innovation
following a process is often used by the projects. Public information
programs were used by five projects. Two employed method demonstra-
tion, or showing "how," in person. Fairs and exhibitions were used by
two projects. Five projects used a combination of at least two methods
(result demonstration and public information program).

There are six projects whose objectives included the training
of agents before regular employment or on-the-job training. Five of
these projects employed a field laboratory concept of training,
actually exposing the trainees to the work conditions and to the task
environment as interns or apprentices. One project used a seminar
format.

Organization and Sponsorship

Any program of planned change involves a change or advocate
system which employs field agents, provides resources for field opera-
tion, and develops doctrine that guides local programming. Of the
projects examined, six are part of a national extension organization.
Three are local development authority types of organizations where
administrative headquarters and field operations are on the local
field level with no national or regional organizational structure above
it. Three projects are institute or academy types which handle
residential instruction to trainees as well as coordinate field
training activities.

Six of the projects are materially and technically assisted
(foreign assistance in cooperation with the national government), and
five are pure national programs.

Result

In selecting the cases for this study, we tried to use a
criterion of balance with respect to the "success" and "failure"
of the result. Of the 11 cases studied, four are considered successful (Case Nos. 1, 9, 10 and 11) and two are considered failures
(Case Nos. 5 and 8). Five projects have glimpses of both success and
failure; that is, they are successful on one count and are failures on
another (Case Nos. 3, 4, 5, 6, 7). The criteria of success-failure
are based on whether the projects had impact on: (a) positive attitudes
towards the innovation or the project, (b) increased productivity,
(c) increased number of adoptors, and (d) increased income of the
program recipients.

We employed another set of standards for determining success-
failure of the staff development type projects. These were: (a)
increase in technical knowledge, (b) increase in extension or
pedagogic competence, and (c) "multiplier effect"--that is, did the
trained agent extend himself and what did he learn from others?

For the reader who wants to know more details about the cases,
their individual descriptions are found in the appendix.

Discussion and Lessons

It is quite apparent that from the size and distribution of
our sample we don't intend to make a statistical inferential type of
study. What we are hoping to accomplish in this study is to identify
lessons which are highlighted in these cases with the goal of alerting
the practitioners to these lessons as they design and implement
planned change projects in the area of agriculture. To the extent
possible, we would like to emphasize those lessons which are related
to education, particularly to non-formal education.

It is safe to state that the cases examined represent realistic situations the world over, wherever planned change in agriculture is being carried out. Therefore, while the sample is obviously small, it is representative.

In the abstract, the basic process that we are dealing with is change. Whether we take the perspective of education, cultural anthropology, communication, or sociology, the underlying process is identical. We shall define change as any alteration of the present state of the system. Change could be positive, such as in the process of growth, achievement, and fulfillment. It could also be negative-- death, destruction and decay are change processes too.

From the educational point of view, change is commonly referred to in terms of an alteration of the state of cognition (knowledge- information), competence (intellectual abilities and skills; productive use of cognition), and volition (feeling, attitude, interest, will to act) of the individual. Cultural anthropologists talk of change as cultural borrowing, adaptation, adoption, and introduction of artifacts into a cultural system through contact and interaction between an indigenous and an external culture. Communication posits change as alteration of human behavior reflected in the sharing of meaning of symbols by individuals in interaction. Sociologists view change as alteration in statuses and roles within a social system.

These four conceptions of change could serve as disparate fountainheads from which we can draw elements to analyze our present problem. Our present problem could be viewed as a combination of these four modes of analysis. Warren Bennis presents a more combined con- ception called "planned change." He defines planned change as the process of conscious, deliberate, and collaborative effort to improve the operation of a system . . . through the utilization of scientific knowledge.[21] The process of planned change involves a change agent, a client system, and the collaborative attempt to apply valid knowledge to the client's problems.

The present problem of rural agricultural development could be re-formulated as follows: "How can professional agricultural change agents apply appropriate technology (knowledge, skills, materials) to help clients solve their problems?"

The system unit of change could range from the individual, the group, the community, the society, or the culture. In this present study we will focus on the individual as the subject and producer of change. We recognize, however, that the individual is interlocked into the community system, and the two are interdependent and interacting.

How does rural agricultural change take place? We can approach this question by first picturing the desired state of change. As a simultaneous producer and manager of the farm enterprise, the client should be able to make intelligent decisions and direct his action toward the attainment of specific goals, relative to his resources and situation. As an intelligent farmer he should be able to assess the potential of his available resources, set realistic goals, consider several options for reaching these goals, weigh these options comparatively, make an informed and calculated decision, and implement that decision toward fruitful ends. The nature of the farm enterprise is such that change is commonly seen in terms of the volume and quality of crops and livestock produced, in the diversity of the enterprise, and in the overall appearance and condition of the farm. As an economic activity one legitimate measure of success in the enterprise is income from sales of produce. The literature in agricultural economics, in sociology, and in communication have referred to this end state as the "modern type of agriculture."

There is obviously a wide gulf between the traditional peasant agriculture and modern agriculture. The traditional farmer is more dictated to by traditional institutions than by new opportunities, by the security of tested practices rather than the risk and a potentially more efficient and more productive method or seed, by self-sufficiency rather than more commercially oriented goals, and he is more influenced by the past and the present rather than by the future.

How does a farmer change from being traditional to "modern"?
Kurt Lewin, a German psychologist, posited a theory of change, some-
times called the field theory of change. While highly complex in its
formulations and applications, the generic concept is that in many
defined social situations, the present level of accomplishment is
supported by some forces and held back by others. This basic notion
has been expanded and applied to cultural change. George Foster, as
cited by Leagans,[22] contends that each society can be thought of as
hosting two kinds of countervailing forces--one seeking to promote
change and the other trying to prevent change from happening.

From the individual perspective it can be said that these
forces of inhibition and promotion create a tension in the person which
results in realignment or change in the person's psychological con-
figuration.

Change Inhibiting and Change Promoting Factors:
Lessons from the Cases

Using the above framework we can then group the factors or
lessons extracted from our 11 case reports into change inhibiting and
change promoting or facilitating factors. We shall state these
lessons in the form of general emperically based propositions or
hypotheses.

Change Promoting Factors

The factors that seem to favor change could be further cate-
gorized into: (1) external inputs; (2) physical environment; and
(3) internal elements.

External Inputs.--This consists of ideas, persons, organizations,
and materials introduced from the outside into the local system.

1. Kind of Innovation: A change toward a new agricultural
   innovation is facilitated if the innovation is proven
   locally as clearly more superior and advantageous than
   the traditional technology that it is to replace. In
   the cases considered successful in this study, it was
   found that the new seeds, the fertilizer recommendations,

the new implements introduced, and the new vegetables introduced were clearly more advantageous than their local counterparts in terms of yield and efficiency.

In all of the cases that were considered successful, an applied research or field test component was present. The field test had served the purpose of sorting out the practices that are locally applicable and had helped communicate their advantage to the local farmers.

2. Competence of the Change Agents: The acceptance of an agricultural innovation is favored by the demonstrated ability of the change agent in: (1) technical knowledge and skills related to the innovation, and (2) his communication and pedagogical competence. An agent is more credible in the eyes of the clientele if "he knows the stuff," i.e., if he speaks with confidence and authority about the innovation he is trying to promote and can convincingly demonstrate its features and procedures to the clientele.

The agent's skill in establishing a positive social relationship with the clientele and his skill in choosing the appropriate pedagogical approach and technique can directly influence the clientele's reaction to the innovation that he is recommending.

In all of our success projects, agent competence was present and was provided through pre-service or on-the-job training programs.

3. Leadership Ability: The ability of the rural development project to get popular grassroot support and to inspire the personnel working in the project is related to the leadership quality of the project leader. We further suggest that the factor of leadership is more eminent in comprehensive projects than in narrow projects.

In both of the two comprehensive success projects that were studied, the role of leadership had been well documented. The specific qualities of leadership mentioned were: charisma, dedication, sincerity, local identity, strong moral character, and skill in the administration of people and resources.

4. Social Infrastructure: A project is likely to get more local participation and more acceptance if the administrative and organizational form and processes are oriented to local operation rather than to general national headquarters. Agricultural innovations are often physical in nature (fertilizer, seed, water, pesticides, etc.). A change agent can talk with a farmer about an innovation, day-in and day-out, and the farmer may be interested in it,

but unless the required supplies are physically
available in the locality, the exercise will end up as
just lip-service. The local availability of these
supplies could be either hindered or facilitated by
the efficiency or inefficiency, and by the commitment
or lack of it, of the whole agricultural delivery and
support system (governmental bureaucracy and agri-
business firms).

Physical Environment.--Agricultural production systems are
basically a biological process and therefore its growth and response
to management is greatly influenced by the condition of the soil,
supply of nutrients and water, favorable sunshine, and absence of
pests and diseases.

Local Systematic Elements.--There are elements internal to the
system that favor acceptance of innovation.' Some of these elements
are: (1) previous contact and experience with change programs;
(2) individual personality characteristics; and (3) "change climate."

1. Previous Contact with Programs of Change: A farmer's or
    a community's receptivity to innovation is related to
    their experience with previous programs of change. If
    the experience has been rewarding and positive the
    reaction to new programs will tend to be favorable.

2. Individual Personality Characteristics: An individual's
    receptivity to innovation is partly determined by
    personality characteristics such as high motivation,
    interest, aspiration, and a favorable general attitude
    to change.

3. "Change Climate": The individual who resides in a
    community that is overwhelmingly pro-change will likely
    be receptive to innovation.

Change Inhibiting Factors

The factors that seem to restrict change and maintain the
status quo can be classified in the same way.

External Inputs.--

1. Kind of Innovation: Innovation that is perceived as not
    filling the individual's need will be received with less
    interest. The cocoa farmer in Ghana did not adopt maize

fertilization even when its benefits had been proven in his own farm because maize production is not his major enterprise.

2. <u>Local Training</u>: Projects that require local managerial ability, such as cooperatives, often fail because of the program's failure to provide adequate training of local leaders.

3. <u>Change Agent Social Competence</u>: Failure of program agents to solicit local participation and involvement in the planning of the project often results in rejections or poor reception of the project. Participation in planning by those who will be affected by the change provides assurance of local legitimization, relevance to local needs and problems, and will likely avoid unanticipated consequences of failure.

4. <u>Administrative Bottleneck</u>: Bureaucratic red-tape, very elaborate and tedious rules and regulations, favoritism, passing the buck, and other administrative mal-practices demoralize people and result in a poor turnout and decreased voluntary participation for the project.

<u>Physical Environment</u>.--Adverse weather conditions like drought and flood could create a climate of fatalism, resignation, and lack of interest in innovation.

<u>Local Systemic Elements</u>.--Internal conflicts, institutional factors, and previous negative experiences with program changes could serve as impediments to change.

1. <u>Internal Conflict</u>: Internal village rivalry and animosity could create conflict and dissension which are destructive to cooperation within the community. Such a climate could be too involving and distracting for individuals to consider innovations.

2. <u>Traditional Social Arrangements (Institutional)</u>: Existing institutionalized patterns of relationships within the family and within the community such as customs and norms are often threatened by the introduction of an innovation, and, therefore, individuals who value such institutions would react negatively to the innovation.

3. <u>Adverse Experience of Previous Programs</u>: A farmer or
    community whose previous experience with programs of
    change had been antagonistic or negative would react
    unfavorably to subsequent change programs.

We can summarize the influences of these two countervailing

forces graphically as shown in Figure 1. The downward arrow repre-

sents the composite forces that work against change or any deviation

from the usual and expected course. The upward arrow represents the

composite force that tends to induce change or deviation from the

usual course of events, and the dotted arrow represents the

theoretically intended direction of change.

<u>Conclusion and Implications: Non-Formal</u>
<u>Education for Rural Development</u>

The very first tasks of rural education are helping the villages
to walk out more confidently into a wider world, emphasizing the
trust which education must win, the continued support which is
needed from the system of values and observances, the need for
technical help in improving the means of livelihood.

--Guy Hunter[23]

The work of the agronomist thus cannot be the schooling or even
the training of the peasants in techniques of plowing, sowing,
harvesting, etc. If he limits himself to a simple form of
training, he can in certain circumstances obtain a better work
output. However, he will have contributed nothing (or nearly
nothing) to their development as people.

--Paulo Friere[24]

Some peasant nations may well achieve a civilization which has
qualities which the West will envy, even if their physical
wealth is less.

--Guy Hunter[25]

In the section on the objectives of rural development, we pre-

sented a more comprehensive notion of the concept. In summary, we

said that rural agricultural development must result in: (a) making

the farmer a better farmer, enhancing his capacity and dignity;

(b) making the peasant community a satisfying and enjoyable place to

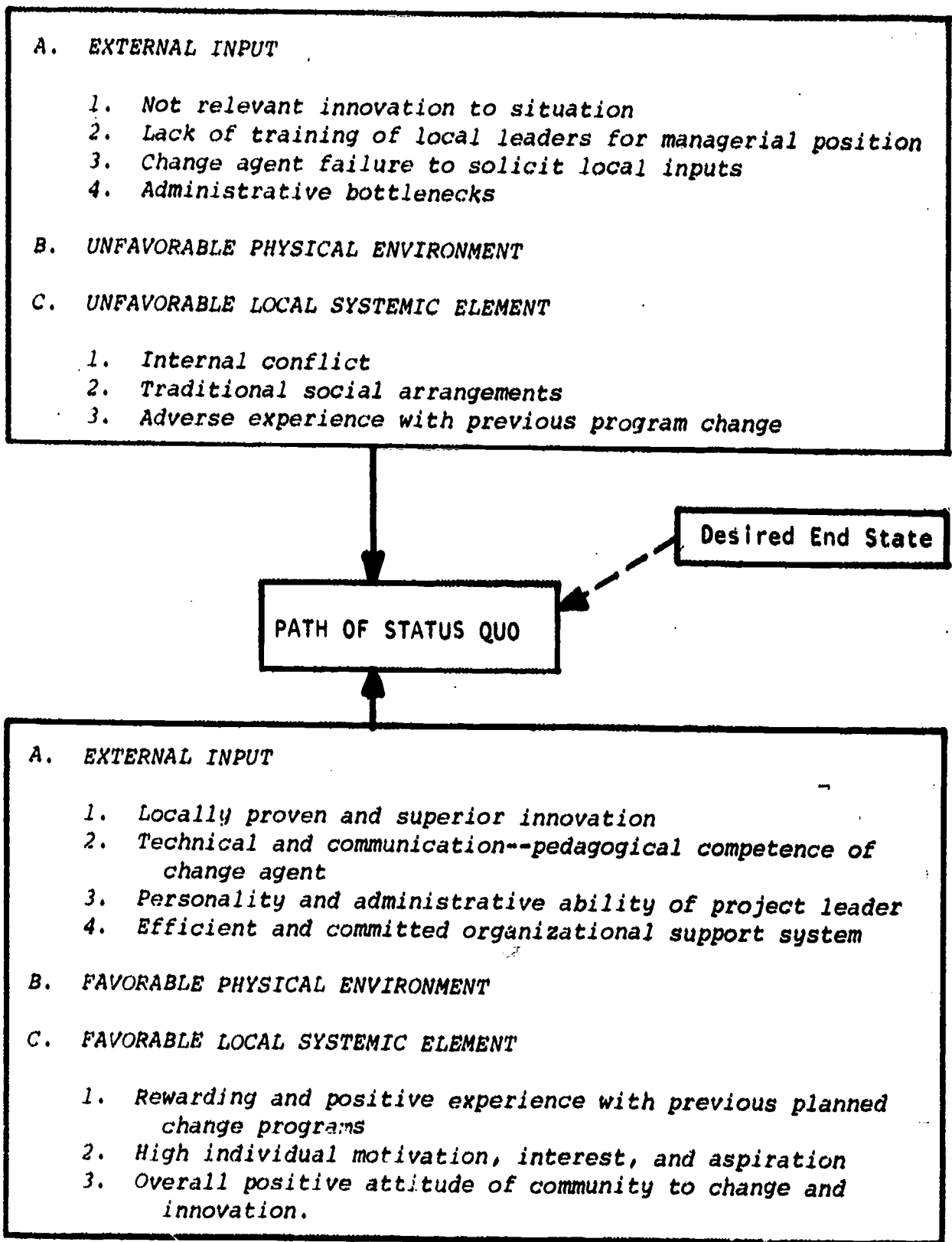live in; and (c) increasing peoples' pride in their community.

A. EXTERNAL INPUT

    1. Not relevant innovation to situation
    2. Lack of training of local leaders for managerial position
    3. Change agent failure to solicit local inputs
    4. Administrative bottlenecks

B. UNFAVORABLE PHYSICAL ENVIRONMENT

C. UNFAVORABLE LOCAL SYSTEMIC ELEMENT

    1. Internal conflict
    2. Traditional social arrangements
    3. Adverse experience with previous program change

Desired End State

PATH OF STATUS QUO

A. EXTERNAL INPUT

    1. Locally proven and superior innovation
    2. Technical and communication--pedagogical competence of
       change agent
    3. Personality and administrative ability of project leader
    4. Efficient and committed organizational support system

B. FAVORABLE PHYSICAL ENVIRONMENT

C. FAVORABLE LOCAL SYSTEMIC ELEMENT

    1. Rewarding and positive experience with previous planned
       change programs
    2. High individual motivation, interest, and aspiration
    3. Overall positive attitude of community to change and
       innovation.

FIGURE 1

SUMMARY OF CHANGE FACILITATING AND CHANGE INHIBITING
FACTORS IN RURAL AGRICULTURAL PRODUCTION
SYSTEMS BASED ON ELEVEN CASE STUDIES

A rural agricultural development perspective is presented by
V. M. Dandekar, an agricultural economist. He mentions three things
that are essential toward its attainment. They are: (1) education
and improvement of the farmer as a farmer; (2) reorganization of the
production apparatus in agriculture enabling the farmer to take better
care of his land and water resources; and (3) creation of appropriate
institutions in order to improve the decision-making in agriculture.[26]
This study emphasizes the education and improvement of the farmer as
a farmer.

Our general criticism of past programs of planned change in
agriculture in the LDC's, as exemplified by the sample we have pre-
sented in this study, is that change had been viewed more as a process
of transferring technical information, practice, ideas, materials,
etc., from the agent to the farmer. The emphasis was on bringing and
diffusing something from the outside into the community. Even if we
recognize the necessity of bringing in external elements--ideas,
materials, procedures, people to break the closeness of peasant
village systems--we take issue with the external orientation of these
programs. Friere's criticism of agricultural extension is that it is
mechanistic and static because of the emphasis on transfer. He asserts
that what is transferable is static by definition. He further
observes that the present claim of extensionism is to substitute one
form of knowledge for another while it refuses to recognize confronta-
tion with the world as the true source of knowledge.[27]

We have adopted in this study a particular perspective of rural
development, a more internal, educational, and people-oriented change
process. We assume that the goals of extension, community development,
planned change or the like, are the enhancement of human potential,
serving human purposes, and aiding individual achievement of self-
determined goals. We agree with Friere's conception that extension
should not function as a transmittal agent of external knowledge but
should work for the "transformation of the knowledge of the world into
an instrument for adapting man to the world." The emphasis should not
be on knowledge but on the act of knowing and an awareness of the reason

behind the knowing, not on product but on process and people, not on being but on becoming.

The extension worker as an educator (non-formal educator) has to help the people achieve fulfillment and satisfaction from life in the village. He does not have to persuade them to escape from it to the more modern, dynamic, and economically-based life style of the city. It is a fact that moving away from the relatively closed system into the world of more and varied opportunities is essential for the overall development of the nation. Nevertheless, the peasant should realize that probably in his lifetime his basic life-position will remain unchanged. The lesson of modern times has been that the approach of modernization by industrialization and urbanization has not been all too happy and it has created more problems than it has solved.

Let us consider the more operational level of education for rural development by indicating implications for program planning, development, and implementation.

What should the rural educator teach in the villages? Dandekar suggests that the instruction should cover basic facts regarding plant and animal life, reproductive processes, plant and animal diseases of common occurrence with special emphasis on their bacterial and virus origins, disease control, hygiene, public health, and family planning.[29] He added that educational process must focus on an understanding by the farmer of the essential difference between traditional and modern agriculture. In addition to this we can include Friere's suggestion of teaching for environmental awareness, adaption and control of the environment to serve man's purpose.

What about the educator himself? How different do we want him to be from our past perception of him? What kind of professional rural educator would fit this present formulation of rural development? F. C. Byrnes, an observer of extension systems in the LDC's, identifies four areas that extension agents should be competent in:

1. Technical competency--the level of knowledge and under-standing relevant to crops or livestock the farmer produces, the production practices involved, and the physical environment in which the production takes place;

2. Economic competency--ability to weigh alternative production inputs in relation to the maximum advantage that can be derived from them;

3. Farming competency--willingness and skillfulness to perform the range of physical tasks involved in pro-ducing a specific crop or animal;

4. Communication competency--ability to diagnose communication problems and design effective communica-tion measures to combat them; this includes effectiveness in developing a positive relationship between himself and the community or individuals in the community.[29]

In terms of communication competency, the relationship between the educator and his "student" is an important dimension. Psychologist Carl Rogers and Friere suggest that the relationship between the professional and his client should be on the basis of openness, mutual respect, co-equality, and belief in the plasticity of the latter to grow, to learn, and to solve his own problems. The extension worker should not exhibit a superiority syndrome over the peasant farmer. He should not impose a particular and single frame of mind on his client. He should recognize that because of the farmers' intimate knowledge of local conditions, that he in turn can learn from them. He should learn to dialogue with his clients. His role as an educator should be to help students become aware of themselves, of their environment, and to develop their ability to control and pursue their own life goals. He should help clients to identify problems and to understand their causes, to identify and compare options, and to make choices.

What about teaching setting and materials? The peasant environment should be the classroom and it is about that environment that the student should be learning. In the early 1900's Seaman Knapp had shown that the farmer learns more about new farming recommendations by his actual participation, involvement and trying of the recommenda-tion on his farm in his own environment. Byrnes observes that the

"most readily available, low-cost efficient classroom--the farmer's field--is rarely used."[30] In the past, extension workers seemed to be overwhelmed and oversold on the idea of teaching gadgets, audio-visual aids, classroom teaching, etc.

Summary

Our basic position in this report is that rural agricultural projects in the LDC's, designed primarily to introduce modern tech-niques of production to increase efficiency and productivity of the agricultural production system, do perform (whether consciously or unconsciously) educational functions.

The factors that led to the "success" or "failure" of the agricultural projects examined in this study could be categorized as: (a) external factors, such as the quality of innovation, kind of change agent, efficiency, and commitment of organizational support system, and leadership of the project; (b) favorable or unfavorable physical environment; and (c) favorable or unfavorable local systemic elements such as, previous experience with a program of change, individual motivation, local leadership and extent of conflict, and general commitment disposition to change.

We have observed in looking at the 11 cases that the model used in introducing changes in the peasant communities is basically a "conveyor" or transmittal model wherein an external element is intro-duced and diffused into the village system by an external agent. We have criticized this approach because it is short sighted and fundamentally non-educational.

To remedy the defect of this said model, we suggested a more educative approach in which there is an emphasis on people rather than innovation; process rather than product; becoming rather than being; communication rather than mechanical transfer; and transformation of knowledge of the world rather than substitution of new knowledge for old knowledge of the world. The educational perspective is summarized in the adage, "Give a man a fish, and he will not be hungry today. Teach a man to fish, and he will not be hungry for the rest of his life."

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APPENDIX

DESCRIPTION OF THE INDIVIDUAL CASES

CASE 1. RICE PRODUCTION IMPROVEMENT IN CAMBODIA

Situation and Project Objective

This project was set-up in the early 1960's in the southern part of
the rice-growing area of Cambodia. During that time the average rice
yield in the area was a low 1.1 tons/ha. This low production was
caused by a number of factors, including poor soil, poor seed, and
poor techniques. The inadequacy of the Cambodian Extension Service,
in terms of both human and material resources, has contributed to
this low productivity.

Against this background the Rice Production Improvement Program was
organized by the combined efforts of three institutions, the Royal
Office of Cooperation of the government of Cambodia (ROC), the
Cambodian Agricultural Extension Service, and the U.S. Agency for
International Development.

The main objective of the project was to improve the production of
rice in the area by introducing improved techniques of rice cultiva-
tion. There were also three side objectives, namely: to strengthen
the already exisitng agricultural cooperative and to promote coopera-
tion and coordination between the Royal Office of Cooperation, the
Agricultural Extension Service, and the USAID, and to provide on-the-
job training for the personnel of the extension service.

Procedure

The involvement of the ROC and USAID in the project was designed to
supplement the extension service operation. The technicians of the
project worked as a team. The local project participants were
confined to the members of the Farmer's Cooperative who volunteered
to participate. The relationship between the project and the farmer
participants was business-like. The project provided technical
advice and supervision while the ROC contracted to provide the
physical inputs of production, such as fertilizers and seeds, on a
loan basis payable at harvest time. The contract was a verbal one.
A base minimum return was guaranteed by the ROC on the demonstration
project plot where the recommended practice was done. A check plot
on an area equal to the demonstration plot was used for comparison.
A site close to the road was s/'ected for the project.

A vigorous public information program was carried out to inform the farmer of the results. In addition to this, group observation tours were conducted. Passersby came and talked to the farmer project participants to inquire as to what was being accomplished.

Result

From the 72 selected participants (220 applied) it was computed that the average yield on the demonstration plot was 4.6 tons/ha and the average yield on the check plots was 1.1 tons/lha. In the succeeding years the fertilizer imported by the ROC was increased by ten times to meet farmers' demands.

What Were the Significant Factors
Contributing to Success?

The following elements combined to bring about these successful results:

1. The participants who volunteered for the project were willing to do what was recommended.

2. Intensive competent supervision by technicians and a personal relationship between the technician and the farmer.

3. Effective inter-agency cooperation between the ROC, the agricultural extension service, and the USAID.

Source of Information

Raymond E. Borton (ed.), 1967. Case Studies: (To accompany) Getting Agriculture Moving. The Agricultural Development Council (ADC).

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CASE 2. INTRODUCTION OF VEGETABLE GROWING

The Situation and Project Objective

The place was the Barpali area of Orissa, India, in the early 1950's. Barpali is a predominantly one-crop, rice, growing area. After harvest the land is left idle for the rest of the year. A particular caste, called Mali, grew vegetables on places where there was a water supply. It was a good business for the Malis.

The Village Service Agriculturists (VSA) of the Barpali area wanted to introduce vegetable growing as a source of supplementary income and nutritional improvement for the people.

Procedure

The basic approach used by the VSA was testing and demonstration. The agriculturists first tried growing vegetables on the office compounds to show the people that vegetable growing was feasible in that particular area. The next year the headquarter's based staff members of the VSA all had a vegetable garden at home. At the village fair harvests from the home gardens were exhibited to get people interested.

A severe draught hit the area and production of rice suffered. Vegetable growing was recommended by the VSA partly to alleviate food shortages and/or to sell for cash in order to buy rice.

The campaign for vegetable growing was intensified with the help of the medical service component of the program who gave advice on the nutritional importance of vegetables ot the diet. Audio-visual aids were used to explain nutrition. Meanwhile the agriculturists experimented with new varieties, their proper care, and fertilization. With the encouragement of the VSA, the Village Councils of the Barpali area organized fairs where the products were exhibited.

Result

The coming of irrigation in 1957 saw a tremendous increase in the number of vegetable cultivators which was beyond the capacity of the VSA to supervise. There were lots of crop failures in that season because of the lack of close supervision by the agriculturists. This was corrected during the next season when the number of farmers decreased. The result was a success as far as production was concerned but a failure economically. Overproduction and poor transportation to market caused prices to drop. This led to a reduction in the number of vegetable growers in the subsequent seasons.

The VSA suggested adding a seed distributing and marketing component to the already existing cooperative to make it a multi-purpose one. The suggestion was carried out, but the Cooperative had problems with the technical aspect of seed distribution. The marketing aspect had a serious problem, too, in that the farmers would not use the cooperative for selling their produce.

In summary it can be said that the introduction of vegetable growing to the Barpali area resulted in a nutritional improvement for the people and greater income for the cultivators. However, when the supply exceeded what could be transported and sold efficiently, the enterprise became less profitable.

What Were the Factors Contributing to the Success and Failure?

The large number of vegetable cultivators following the VSA project could be attributed to the combined effects of the followi.g:

1. The coming of irrigation water made vegetable growing more feasible.

2. The home garden demonstrations, exhibitions during village fairs, the cooperation of the medical service in campaigning for better nutrition, and interpersonal campaigns by the VSA.

After a successful beginning, the vegetable business of the area started to fail; this resulted in more dissatisfaction among the growers. The cooperative mishandled the seed distribution project, and the farmers were not using the cooperative to sell their produce. It was reported that the failure of the VSA in this case was in not providing suffi-cient training to local persons in the technical aspect of seed distribution and in the management of a marketing cooperative.

Source of Information

Raymond E. Borton (ed.), 1967. Case Studies: (To Accompany) Getting Agriculture Moving, ADC.

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CASE 3. CASE STUDY OF EXTENSION EFFORT IN POPULARIZING THE OLPAD THRESHER IN DELHI VILLAGES

Situation and Project Objectives

The case described here concerns the introduction of an improved farm implement (olpad thresher) into the Kanjhawalla Community Development block in Delhi State, India. It is claimed that this particular implement saves labor, is easy to operate, gives rise to less dusts in threshing, and the chopped straw produced by it as a by-product is of a higher quality than that produced by the indigenous method.

A program was set-up to popularize the thresher through demonstration of its relative economic and time saving advantages.

Procedure

The project was launched by the Community Development Department in India through the extension agencies working in the countryside. This

report deals with what happened in a particular block, the Kanjhawalla Block. The analysis will focus on two villages, Pathkalan and Karala.

In both cases the thresher was consigned to a local institution to be used by the villagers on a hire basis for nominal charge. In the Pathkalan case the thresher was put in the village council charge. In the Karala case it was lent to the village cooperative society. It was reported that more intensive campaigning was done in the Pathkalan village than in Karala.

Result

Within a period of about three years, 40 Olpad threshers were purchased in Pathkalan and only three were purchased in Karala. What is the difference between the two villages? The answer to this question is provided in the next section.

What Were the Factors Contributing to the Apparent Success in Puthkalan and to the Failure in Karala?

Puthkalan: This village had been getting attention from the extension people for the past 10-12 years which created a receptive atmosphere for further extension programs. In general the people were more cooperative and progressive in attitude. The two agents assigned there belonged to the same majority caste of the community and had good personal relationships with all of the villagers. In addition the village was predominantly a wheat area, with a high percentage of land in irrigation, and the people had a higher level of adult literacy.

Karala: In this village there was an uneasy atmosphere caused by the existence of two distinct and quarrelling factions revolving around the cooperative society. One faction was for it, while the other was against it. Moreover, there was antagonism toward the extension workers whose past contacts with the villagers had been minimal. The village also had been hit by severe crop failure due to flooding in the past years, and this created a fatalistic attitude.

Source of Information

Raymond E. Borton (ed.), 1967. Case Studies: (To Accompany) Getting Agriculture Moving. ADC.

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CASE 4.   A CUSTOMARY SYSTEM OF REWARD AND IMPROVED
           PRODUCTION TECHNIQUES

Situation and Project Objectives

This report compares the reaction of two villages--Wangala and Dalena--
in Mysare State, India, toward the introduction of the Japanese method
of rice cultivation. The Japanese way of cultivation according to
agriculturists could increase the yield of rice considerably. The
technique requires a more exact spacing and alignment, so that one
acre would take longer to plant with the Japanese technique than
with the customary method.

Procedure

In these two villages fertilizers were given free by the Agriculture
Department to those farmers who were willing to experiment with the
Japanese technique of planting.

There were differences between the two villages. Wangala had had
irrigation water for 20 years while Dalena farms were largely unirri-
gated. A customary system of relationship between the growers and a
group of transplanters had existed in Wangala. Every planting season
the farmer had to turn to the same group of "organized" transplanters
to do the transplanting chores. This all-women group of transplanters
was highly skilled in the traditional way of transplanting. The
leader of the group was responsible to the farmer and also to her
followers in terms of giving them their share of the crop after the
harvest. The planters got paid in kind rather than in cash.

In Dalena village such an arrangement did not exist. Most of Dalena's
farmers had bought farm lands in the outlying villages where there was
irrigation. They, therefore, had not established the kind of bond
with the transplanters that the Wangala farmers had.

Result

In Wangala village despite the incentive of free fertilizers, very few
farmers wanted to experiment with the new method. Those that were
willing to experiment ran into the problem of not being able to get
transplanters to follow the Japanese technique unless the farmer paid
extra for the additional amount of time the transplanting took.

In Dalena the farmers had been able to get a group of transplanters
who followed their instructions. As a consequence of the new
technique, production increased considerably.

What Lessons Can Be Learned
From This Case?

One determining factor in the acceptance of a new idea within a social system is the reality of existing institutions. Institutions function to insure interdependence, dependability, and to reduce uncertainty within a relatively closed social system. Any foreign element that threatens this relationship will be rejected.

It was suggested in the report that one way to break this traditional method of cultivation might be to change the reward system; i.e., instead of paying in kind, cash could be paid on a daily basis.

Source of Information

Raymond E. Borton (ed.), 1967. Case Studies: (To Accompany) Getting Agriculture Moving. ADC.

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CASE 5. A STRATEGY FOR INTRODUCING A SMALL IRRIGATION PROJECT

Situation and Project Objective

The name of the village was not mentioned in the report, but it was in India. The most important activity of the village was agriculture which was traditional and on a subsistence level. Every third year a famine occurred. This situation was related to a lack of dependable water for growing a good crop of rice. The village was divided under two rival leaderships.

In 1953, an irrigation dam was constructed by the irrigation department as a means of providing a dependable water supply to sustain a good crop.

Procedure

The planning of the dam was done entirely by the Irrigation Department. After construction was completed a supervisor was appointed to look into the day-to-day affairs of the dam.

Result

The village people objected vehemently to the project, particularly the site of the dam. Within a period of about two years, only eight farmers availed themselves of the dam. During the third year, the project was taken over by the extension agency, and after studying the problem, they handed the entire administration of the project to the

village council. Within a year after the extension took over, 30 farmers were using the dam. Now with the village council administering the dam, most of the farmers are using the facility.

What Were the Factors Involved in the Process?

A number of factors had cumulated which made the farmers reluctant to accept the program.

1. The village people were not involved in the decision related to the project. There was very little communication between the technical men (engineers) and the ultimate users of the facility. A proof of poor planning was the selection of the site. Because the site was located close to the village, flies and mosquitos increased. Some villagers also threw waste matter into the dam water which created health problems.

2. No educational program accompanied the introduction of the new irrigation program. The use of irrigation requires a knowl- edge of techniques which the farmers were not given.

3. Bottlenecks in the administration of the facility, such as having the farmer go to a third party to pay water charges, discouraged farmers using the facility.

The relative success of the project after it was turned over to the extension service was related to the change agent's interest in the project and in the people with whom he was working.

Source of Information

Raymond E. Borton (ed.), 1967. Case Studies: (To Accompany) Getting Agriculture Moving. ADC.

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CASE 6. AN EXPERIMENT IN EXTENSION: DESCRIPTION OF THE WORK AT THE DEMONSTRATION AREA PROJECT IN URUGUAY

Situation and Project Objective

In the late 1940's the Organization of American States (OAS) was established. This was set up to facilitate the regional development of Latin America through the cooperation of Latin American countries and the infusion of capital and technical resources from the USA.

The case examined here was one of the projects of the OAS's technical Cooperation Program. It is called "Technical Training for the Improvement of Agricultural and Rural Life." Its objective was to

train people for professional extension personnel, especially agrono-
mists and home economists.

Procedure

The execution of the project was entrusted to an institute. The
project was organized in three different zones. This report covers
only one, the Southern Zone, which includes the countries of Argentina,
Brazil, Chile, Paraguay and Uruguay (headquarters).

It was conceived that the best way to train extension personnel was
to have them work and learn in a field extension laboratory.

The first stage of the project was to set up a demonstration area,
actually an extension field laboratory. Basic socio-economic-physical
studies were conducted in the designated project site, and initial
personnel were recruited and trained. A native of Uruguay with basic
preparation in extension was appointed head of the operation. He was
soon sent to the US to obtain an M.S. degree.

The first program of activities that the trainees had to work on under
the guidance of the institute staff was Community organization. Youth
Clubs and Homemakers' Clubs were organized. The school teacher's
cooperation was solicited and was accordingly given. The idea of
these projects was to create community awareness and set a climate of
extension or change.

The second stage of the project was directed to the farmers. Farmers'
Committees were organized and projects with valid economic importance
were initiated.

There were two main components of the seven month training program:
the field laboratory, where trainees actually did guided extension
activities, and classroom seminars in the institute headquarters
where instruction on extension philosophy and methods was given.

Result

From 1952 to 1962,58 agronomists and agricultural technicians and 66
home economists received training at the demonstration area. It has
been reported that the trainees who returned to their respective
countries performed outstandingly on the job. After 1962 the demon-
stration area was turned over to the Uruguayian government.

On the part of the farmers and the community in general it has been
reported that the project had real impact on attitudes toward change.
There were also substantial economic impacts in terms of increased
income.

What Lesson Can We Learn
From This Case?

Extension work is an extremely demanding job. To be effective the worker has to be competent both in the technical and educational process aspects. The technical aspect refers to technical ideas, information, skills, procedures, and techniques of doing certain operations in agriculture and/or homemaking. The educational process aspects refers to the manner of working with people, of mediating the technical aspect to the people, and of getting the people to treat change positively.

The training of personnel to develop these twin types of competencies requires the presence of an appropriate learning environment and a sound pedagogical plan and procedure. The case described has provided a model for this. Several elements are worth noting: (1) maximum contact and actual experience with real objects and subjects which are realistic to future work condition, (2) a period of reflection, analysis, and conceptualization should follow the experiential exercise, and (3) a substantial period of training time should be allowed to internalize the skills and knowledge intended.

Source of Information

Raymond E. Borton (ed.), 1967. Case Studies: (To Accompany) Getting Agriculture Moving. ADC.

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CASE 7. THE "TRAIN-THE-TRAINER" APPROACH IN COMMUNICATION
TRAINING. THE ADECO COURSE

Situation and Project Objective

As part of the Organization of American States' technical cooperation program, its agency, the Inter-American Institute of Agricultural Service (IAIAS), launched in 1948 an agricultural communication program which essentially consisted of research information transmittal from researchers to technicians. Beginning in 1955 and with the development of the National Project in Agricultural Communication (NPAC) at Michigan State University in 1956, greater emphasis was directed at improving the ability of extension workers to communicate ideas to the people they serve.

To give birth to this new emphasis, the IAIAS organized a three-week seminar on communication largely based upon the seminar developed at MSU. The objective of the seminar was to train Latin American

extension workers in the best known principles and methods of trans-
mitting new farming ideas and practices to the ultimate users.

Procedure

San Jose, Costa Rica, was chosen as the seminar site. Trainees were
to come as teams from Costa Rica, Brazil, Colombia, Honduras, and
Nicaragua.

The first thing that was done was to send five staff members from the
Institute to the U.S. to participate in the communications seminar at
MSU. These five men were to become the Central team to train extension
workers from the five countries. On the return of the five staff
members to Costa Rica, they favorably endorsed the seminar concept
to the IAIAS. Preparation for the first communication seminar in
Latin America consisted of: (1) revising the U.S. seminar to adapt to
Latin American conditions, (2) translating background reading materials,
films, film strips, and visual aids into Spanish, (3) preparing
instructors' manuals and supplementary reading materials, (4) holding
a week-long workshop for would-be instructors, (5) recruiting and
selecting trainees from the five countries, (6) hiring two MSU
professors as consultants for the first seminars, (7) setting-up a
seminar advisory group to advise the program manager on policy
matters.

Result

Trainees from the five countries evaluated the course very favorably.
They liked the active participation that was encouraged, the group
activities, the use of visual aids, and the high quality of teaching.
It also provided them with a basic understanding of human communications.

The intention of IAIAS was for the five countries to hold seminars for
their national extension workers. This was done only in Brazil and
Colombia.

Probably the greatest impact of the seminar was the acceptance and
internalization of a perspective of communication in extension work
and in the programs at the University. Some of these perspectives
included: (1) people orientation, (2) process orientation, (3) need
for research and evaluation, and (4) less emphasis on gadgets and
techniques and more on the integrated conception of the interaction
of source, message, channel, reception and effect.

It has been reported that the main contribution of the seminar was
the elevation of the professional level of the Latin American informa-
tion workers.

What Lessons Can Be Learned
From This Case?

The tenability of the concept of "training-the-trainers" depends on maintaining a quality core of instructional staff members who themselves have been exposed to training for a considerably longer time than the people whom they will train. This core of trainers should also provide field guidance and assistance to the new set of trainers. Their physical presence in the field and their working side-by side with the new set of trainers will provide the latter with expertise, confidence, moral support, and the opportunities for consultation and constructive criticism. This partly explains why only two out of the intended five countries conducted seminars. The reorganization of the IAIAS substantially reduced personnel and thereby cut the capacity of the institute to do follow-ups in individual countries.

In terms of change-agent characteristics, understanding of the basic processes of human communication is basic and crucial for the change-agent's effectiveness in working with and helping people.

Source of Information

Raymond E. Borton (ed.), 1967. Case Studies: (To Accompany) Getting Agriculture Moving. ADC.

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CASE 8. CHECKING UP: A MAIZE FERTILIZER CAMPAIGN

Situation and Objective of the Project

The project to be described here was done in a coastal plane about 40 miles from Accra, the capital of Ghana. This area grows cocoa predominantly, and maize is a secondary crop, a source of supplementary income. In the past there had been fertilizer demonstrations on government maize farms in order to increase maize fields but they had proven ineffective.

In the face of this ineffectiveness the Community Development organization decided upon a different approach.

Procedure

The Community Development department selected certain farmers in the area and persuaded them to use fertilizer on a portion of their corn farms. The plots were distinguished by signboards, and other farmers were brought to these plots to see for themselves the difference between the fertilized and unfertilized fields. The farmer cooperator explained the methods employed.

Result

The farmer cooperators and those that saw the demonstrations were reported to have been persuaded that fertilizer was good for the maize. This was reported oy the Community Development workers to their headquarters. But the CD director noticed that the sales of fertilizer in the area were not reported. The director soon discovered that very few farmers had actually pruchased fertilizer. 'Later, the reasons given for the farmers' lack of fertilizer purchasing were these: (1) cocoa is their principal crop, not maize, and the income from cocoa had been quite high, and (2) the marginal return on investment on fertilizing maize was not high.

What Lessons Can Be Learned
From This Case?

In any rural agricultural development intervention, the change agent should have a thorough understanding of the reasoning and logic of the people he is trying to serve. He should not assume without qualifications that the technology he knows is superior or that his program should be entirely based on this technology. The extension adage "start where the people are," is indeed valid.

One other implication is related to the administration of rural development programs. The administrator should not rely solely on reports submitted by his field workers. He should develop an adequate monitoring system in order to obtain a factual analysis.

Source of Information

Raymone E. Borton (ed.), 1967. Case Studies: (To Accompany) Getting Agriculture Moving. ADC.

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CASE 9. THE PUEBLA PROJECT IN MEXICO

The Situation and Project Objectives

Farmers in this area have been growing maize for hundreds of years without much change of cultivation practices. Land holdings are small. The native soil fertility is becoming exhausted and agricultural services from the government have not been adequately provided to this area.

Meanwhile, at an agricultural research institute less than 100 miles from this area of Puebla, new seeds and production techniques have been developed by foreign and local experts. This research institute is The International Corn and Wheat Improvement Center (CIMMYT). This

institute is supported by grants from the Ford and Rockefeller Foundations, the World Bank, United Nations, the Inter-American Development Bank, and the governments of the USA, Canada, and Germany.

In its research activity the CIMMYT has done an outstanding job. The central question in the minds of the institute's scientists and administrators is: How can the small maize farmers who outnumber the larger farmers profit from the new technology? In 1967 a pilot project was established in the province of Puebla for the purpose of providing answers to this question. More specifically the objectives are: (1) to develop a strategy for rapidly increasing the yields of basic food crops among small landholders; (2) to train technicians from other places in the strategy developed; and (3) to increase the maize production of the farmers in Puebla.

Procedures

There are a number of elements that should be highlighted concerning this pilot project. Attention should be focused on them because these elements are rare in the developing world and because they have been successfully used in this project.

1. Multi-sponsorship: Although the main impetus, funds, and leadership may have come from the CIMMYT, local institutions such as a college of agriculture, the ministry of agriculture, local government, and agri-business interests functionally participated and committed themselves to the pilot project. Provision was made in their memorandum of agreement that funding of the project should be the responsibility of the Mexican government after the specified time period had elapsed.

2. Integrated Research and Extension: Unlike the set-up in many countries in which extension is not functionally linked to the research system, the Puebla project integrated the function of applied research and extension at the field operations level. Test plots were employed, as well as visual and teaching aids, to communicate certain messages to the farmers.

3. Group and Mass Communication Methods: In order to reach a substantial number of people, a combination of group and mass communication approaches were used. The specific techniques were organization of a farmer association, group discussions, result demonstrations, field days, field tours, radio, and films.

4. <u>Internship for Rural Developers</u>: An internship or training
    program for Latin American agricultural rural developers
    or change agents had been incorporated into the project.
    Interns learned the concepts and operational skills of
    rural agricultural development through on-the-job,
    "learning-by-doing," training design.

<u>Result</u>

Results of the Puebla Pilot Project can be measured in a number of ways:
in terms of the number of participants, productivity of the partici-
pants, farming behavior of the participants, diffision of the concept
to other provinces in Mexico or to other countries, and the import
of the project on the extension and research systems in Mexico.

It has been reported that about 12% of the farmers in the area
participated in the project. The increase in maize production for
the whole area attributable to the general plan was 10% in 1971.
Increases as high as 47% were reported when fertilizer recommendation
was followed. Use of nitrogen by participants is reported to have been
doubled between 1967-1971.

In 1971 it was reported that the Puebla Project concept had been adopted
in two states--Mexio and Tlaxcala. Credit institutions and other agri-
bus ness firms are now regarding the non-irrigated and small maize
farm as economically sound investments for them to go into. A
master's level graduate program in extension/development at the College
of Agriculture has been initiated. The director of the Puebla Project
is also in charge of this graduate program.

Interns from Peru, Honduras, and Colombia have since returned to their
countries and have initiated a similar project.

<u>What Lessons Can Be Learned</u>
<u>From This Case?</u>

The simple transfer of technology (seed, cultural practices, etc.) in
the field of agriculture is questionable. Agricultural recommendations
should be environment or location specific because of the interaction
between the crop, the environment, and the technology employed. It is,
therefore, important that applied research and extension be linked
functionally so that whatever is recommended by extension has been
locally tested first.

An educator in the rural environment, the extension worker has an
excellent opportunity to teach using the physical setting itself--
plants, animals, farms, trees, mountains, etc. Yet it is often the
tendency of extension agencies to request expensive equipment and
facilities.

Research institutions have to establish cooperative relationships
with action and policy oriented agencies if they are to effectively
contribute to development and if they are to become socially meaning-
ful institutions.

Sources of Information

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Strategy for Low Income Farmers." Paper read at the seminar on Small
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University.

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Workshop on Empirical Studies of Small-Farm Agriculture in Developing
Nations, November 13-15, 1972.

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CASE 10. THE CHILALO AGRICULTURAL DEVELOPMENT UNIT (CADU)

Situation and Objective

The Chilalo district in Ethiopia is basically a traditional agrarian
area (80% of the population is in agriculture). A great proportion
of the land is owned by landlords. People are poor. Food production
is subsistence level. Most of the people are illiterate and the
nutrition of the people is poor.

In the mid-sixties the government of Ethiopia was determined to find
a solution to the problem of low productivity of agriculture. During
this period Sweden was interested and willing to assist in the
development of Ethiopia. Swedes have long been in Ethiopia and have
been providing Ethiopians some technical assistance.

In 1966 the Ethiopian government and the government of Sweden agreed to
establish a pilot project in the Chilalo district. The objectives of
the project were: (1) to improve the living conditions of the small
farmers; (2) to evolve a methodology of agricultural development with a
view of replicating the lessons in other areas; and (3) to train
Ethiopians for development work.

Procedure

The following list summarizes the significant features of the CADU project:

1. The scope of the program was comprehensive agriculture (crops, livestock, forestry, implements, water, labor-intensive ventures).

2. There was provision for support institutions such as credit, marketing, and agricultural supplies distribution.

3. Physical infrastructures (roads, irrigation, etc.) were established.

4. A training program was conducted (10 months at headquarters and 12 months of fieldwork) to insure an adequate number of highly competent development technicians. A 20 hectare demonstration farm provided a laboratory for the practical training of technicians.

5. The use of model farmers (selected by peers) as "demonstrators" of improved practices under the guidance of extension workers.

6. Applied research was done to test the local adaptability of new practices.

7. Evaluation was regarded as an integral part of the project.

8. Leadership was highly motivated, dedicated, and competent.

9. Assistance in terms of financial and technical resources were provided by another country (Sweden).

Result

It was reported that "on the basis of any measure of success for an experimental-demonstration project in comprehensive rural development in Ethiopia, CADU is regarded as highly successful. The package approach to agricultural programming resulted in increased yield and income. More equitable contracts between landowners and tenants have been devised. More effective and responsible relationships between a donor government and a host government have been forged over the years. Effective non-formal educational methods have been devised to strengthen the participation of men and women, largely illiterate in the development process."

What Are the Lessons That Can Be Learned in This Case?

1. It has been shown that those with 9-10 years of schooling can be trained for agricultural development work (extension work) through a systematic 22 month program of practical instruction in a residential training site (10 months) and 12 months of guided field work. In countries with a low number of university trained people, the requirement of a university degree for extension work is impractical.

2. Indigenous extension or rural development models must be developed by each country through a process of "experiment" oriented action programs.

3. The problem of rural agricultural development should be approached in a comprehensive and integrated way. A number of elements are inextricably interlocked such that a change in one without providing reinforcement in terms of change in the others will lead to ineffectual results. For example, for increased crop production to occur superior seeds must be provided along with water, fertilizer, insect control, etc., including an efficient credit, marketing, and price system.

4. The effectiveness of foreign technical assistance in agri-cultural development depends upon local leadership and the will of the local people to develop. Where local manpower is not adequately available, a program to train local personnel is a must for sustained development. There should be a gradual phasing out of foreign experts adjusted to the local ability to assume full capability.

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CASE 11.   THE PAKISTAN ACADEMY FOR RURAL DEVELOPMENT

Situation and Project Objectives

In 1960 the government of East Pakistan (now Bangladesh) started an experimental program in rural development. It was called the Pakistan Academy for Rural Development. The purpose of the project was two-fold: one was to test strategies and tactics to modernize traditional farming; the other purpose was to serve as a laboratory for training government officials for rural development work.

The agricultural situation in this part of Pakistan at the time was so bad that the government decided to do something about it. While the Western part of Pakistan seemed to be enjoying a better life from their more modernized farming, the East Pakistanis, who are 80% Muslim, were very poor. Food production was subsistence level. Rice, the principal crop, was grown in the traditional way. Illiteracy was high (70%) and population growth was rapid.

Procedure

The district of Comilla in East Pakistan was selected as the site of the rural academy in this part of the country. Another site was selected in the western part, but this report only covers the Comilla site.

The academy was given a broad authorization to take the whole district as a social laboratory. After a thorough study of the problems of the area, several "experiments" were planned, all aimed at comprehensive development of the district, both to modernize its agriculture and to improve rural living.

The central and initial project was the "cooperative experiment." Cooperative associations were organized in the villages and these were confederated at the district level and was called Thana Central Cooperative Association. The Cooperative System became the hub of services and activities in agriculture. The village cooperative promotes group action, joint planning, and savings. The Central Association lends credit, arranges leadership improvement activities, provides service and supplies, and takes care of processing and marketing of products.

Governmental services and extension teaching was coordinated by the Central Association. Coop managers, who were elected by their members, came to the Central headquarters regularly, once a week, to discuss Coop matters and to receive instructions about new seeds, fertilization, insect control, etc. Presentations by agricultural experts were usually elaborate. These managers in turn transmit what they have learned to their members who they also meet with weekly.

The projects that followed were rural administration, irrigation, education, women's education, and family planning.

From the point of view of the training, the trainees could not have been exposed to a better or more realistic learning situation than the combined classroom and actual field experience in the several projects already mentioned.

Result

The impact of the Comilla project can be shown in the happenings in the villages, the increase in agricultural productivity of the Coop members, the adoption of recommended practices by the Coop members, the increased crop diversification, the solvency of the Coops, the great number of educational activities, and infrastructure improvements, such as flood control and efficient irrigation.

The government of Pakistan has given considerable emphasis to rural and agricultural developments, following the experiences and lessons of Comilla. Three other districts have replicated some features of Comilla, and a number of other developing countries have been encouraged by the Comilla success and have adapted some of its characteristics.

What Lessons Can Be Learned in This Case?

The Comilla project was one of the earliest experiments in rural development strategies and tactics. Countries have followed this social laboratory concept of evolving an indigenous model of rural development with a view to replicating the model in other parts of the country. This approach is very sound for there is no one single path to rural development. No two social systems respond identically to a particular plan.

Such a laboratory also provides an excellent training opportunity for local development administrators and technicians. The interaction of these two components--an action-research program and a training program--should be mutually beneficial in order for the total system to profit ultimately.

In terms of rural administration, the Comilla project has shown that the coordination and integration of departmentalized government and other services led to the maximization of resource utilization and a successful outcome.

It has been observed by foreign scholars and visitors that one of the keys to the Comilla success was the dedication, competence, sincerity, integrity and charisma of the first director of the academy.

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CHAPTER IV

NON-FORMAL EDUCATION PROGRAMS IN HEALTH AND SANITATION

By

Maria M. de Colon

The Health Situation in Less Developed Countries

There is a wide diversity of health problems around the world. This diversity results from the geography and climate of each country, from the culture, customs, and history of the people and their actions to solve their own problems. In order to understand the health problems of each country it is necessary to look at them in their national settings.

The principal components of health problems are the same in all places: "men and diseases interacting." Thus, some similarities could be expected as one looks at problems in different countries, and it is tempting to make generalizations about problems and their solutions. The problems could be similar, but the solutions are shaped by the individual context of each nation, by their form of government, the amount of money available to spend on health, by each country's ways of setting priorities, by their social choices, etc., each factor determines what can be done and in what way it can be done.

From a study of health problems in developing countries, Dr. John Bryant (Health and the Developing World) reported to the Rockefeller Foundation and the Agency for International Development that the greatest differences in health problems between the less and more developed nations are not to be found in the kind of diseases that are prominent in one or the other but in the quantitative issues.

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Health problems in developing countries are problems of
quantity such as the demand of health services, shortages of health
personnel, facilities, and materials. He said that while the most
developed countries are deeply concerned about quality of programs
and personnel, it is the problem of quantity that guides the less
developed countries to establish systems that can provide the
services they need at the cost they can afford.

Large numbers of people in developing countries have no
access to health care at all, and for many the services and care
they receive does not answer the problems they have.

The most serious health problems are those caused from mal-
nutrition, gastroenteritis, pneumonia, etc., causes which are embedded
in the ways people live, in their customs, their poverty, the high
rates of population growth, lack of food, poor conditions of living,
lack of education etc.

Dr. Bryant claimed that in most places health care and
services are greatly inadequate and this is not only reflected in the
scarcity of resources but also in the design of the health systems
and the education of the health personnel.

Several factors can be seen as root causes of the inadequacies
of health care in developing countries.

First, the patterns of medical care and education of health
personnel copied closely from Western countries, particularly
Britain, France and the U.S., did not prepare the physician either
to understand nor approach the needs of the country   As a result
there have been discrepancies between the physician's training and
the roles to be filled.

Secondly, the shortages of money, personnel, and materials
makes it impossible to penetrate into some areas of need. Scarcity
of money has been mentioned as the major constraint in the provision
of health care, and money determines the design of the health services,
the roles of the health personnel and the education they can receive.

Expenditures in health varies from one country to another, and they range from below one dollar per person per year (in some parts of Asia and Africa) to ten dollars of more in parts of the Caribbean and Latin America. Increases in expenditures on health are linked to increases in national income, and increases in national income relate to economic development of the nation.

The opics of health and development have been subject to much abate. On one hand there is no doubting that health programs are necessary to meet human needs and are at times essential for the economic development of disease-ridden areas. On the other hand there is uncertainty as to the priority health programs should have in development, both because of their obvious effects on population growth and because of doubts about their positive contribution to economic evelopment (Bryant, p. 312).

The health care-population dilemma Bryant has pointed out is a matter of finding out a balance between the moral imperative of providing health care and the urgent need for developing effective means of population control.

It has been suggested also that health and education have had a low priority in planning for national development because the philosophy for development has stressed the over-riding importance of investment in the physical elements of national growth such as roads and dams. But recent evidence has demonstrated that physical investment in human resources such as health and education plays an important part in the development process. "A reasonable view is that health is an essential factor in the development process, being both an instrument for and a product of development" (Bryant, p. 312).

The third factor mentioned as a root cause of the inadequacies of health care is the distribution of health resources which usually favors the urban over the rural areas. In some countries this imbalance is expressed in terms of the capital city and the rest of the country.

Organizational deficiencies were found in Dr. Bryant's study of health problems in developing countries which illustrated that this deficiency makes difficulties in developing health objectives, establishing priorities and planning programs on a national basis and

accordingly, there is also a limited coordination between sectors of the same ministries and less with those outside the ministry. In some other cases, it was noted that the responsibilities of the health personnel follow the interests of the agencies and were not closely related to the health needs of the poeple they served.

Bryant suggests that effective health care systems in developing countries must meet the needs that the people see as immediate and urgent, relieve hurt, ease their suffering, and save their lives. At the same time health services need to reach the communities and homes and influence the patterns of life of the people. The construction of dwellings, the protection of water, the delivery of babies, the feeding of children, the size of the family, etc. As this range of health services has to be based in extremely limited resourc_s to be effective within such constraints, a carefully designed system will be necessary. It will have to make optimum use of the resources and achieve reasonable contribution across the nation. No matter how well designed the system will be, its effectiveness will depend on the education of and use of its health personnel.

Purpose and Objective of the Study

As a survey type of investigation, this study was intended to scan the horizon for programs in health and sanitation and be able to draw a profile of these programs according to some structural properties of Non-Formal Education. We shall identify and define these structural properties elsewhere in this report. It is hoped that by using a non-formal education framework to describe and analyze our cases, we shall be able to show that an important functional component of these so-called health and sanitation programs is indeed non-formal education.

Specifically the objective of the study is to (a) collect programs in health and sanitation from all over the world, (b) classify them according to pre-set structural characteristics of NFE, (c) draw a profile of them using these characteristics, and (d) identify patterns of these programs with respect to these

characteristics, particularly those that have implication to planners
and implementors of programs that have NFE as one of the functional
components.

Framework and Definition of Terms

For purposes of this study we shall assume that the programs
we will examine are not merely health and sanitation delivery systems
but are in fact also performing an educational function of a certain
type. We shall refer to this type as NFE, defined as "any inten-
tional and systematic enterprise, usually outside of traditional
schooling, in which content, method of instruction, time units,
admission criteria, staff, facilities and other system components are
selected and/or adapted to serve particular students or situations,
to maximize attainment of specific learning missions" (Kleis,
"Towards a Contextual Definition of Non-Formal Education").

To provide more understanding of this type of education we
shall identify and define its structural properties or elements as
follows:

Mission: The legally and/or consensually established framework of
            intention within which particular purposes, goals, and
            objectives are evolved and pursued.

Sponsor: The political, religious, industrial, and/or other
            institutional complex which initiates, supports, and
            governs the enterprise and within which operating
            institutions (often schools) are established, legitimized,
            and managed.

Mentors: The personnel, whether specially trained and certified or
            not, who teach, counsel, administer, and otherwise staff
            the enterprise.

Students: The participants whose cognition, competence, and/or
            volition are to be induced.

Content: The body of knowledge (information, competence, and/or
            preference patterns) which students are expected to learn.

<u>Media</u>: (Mediating System). The materials, equipment, plant, and processes by means of which direct or vicarious experiences are provided for participants.

In effect, what we did in this investigation was to describe the non-formal education component of health and sanitation programs using the above descriptors (structural elements).

General Description of the Sample

The wide diversity of health problems around the world determine the wide variety of programs designed by each country to solve their problems and meet their needs. Even though the components of the programs are the same, the geographical and social situation in each case is different. In all the programs selected for this study, we can say that each program is different from the other in the way it was approached, the resources used, the participants, facilities, and the results of the programs.

They vary from the most simple and elemental action programs with illiterate people to the most sophisticated college training courses for physicians and medical students.

This study includes forty different health programs around the world. Twenty-six of them were conducted in the less developed countries (Asia, Africa, South America) and 14 in the most developed countries (England and U.S.). Their selection was influenced by the availability of bibliographical information. The programs were selected in part on the basis of regional distribution; that is, we wanted to sample Asia, Africa, and Latin America. It was noticed that for some specific number of years the number of cases reported in the literature was more scarce than in other years. A listing of our sample programs by geographical location and time of occurrence is presented in the study.

TABLE 1.--The Sample.

Title, Location and Date Founded	Mission
1. The Healthy Village West China, 1949	Preparation of audio-visual material
2. The Akufo Village Scheme, Nigeria, 1965	Training medical students in community practices
3. Health Education in Upper Egypt, Egypt, 1952	Health education campaign
4. Health Education in Industry, Yugoslavia, undated	Health education program in a factory
5. Pilot Project in Egypt, Egypt, 1951	Community health action program
6. A programme of Health Education in Uganda-Uganda, 1951	Community health education program
7. Audio-visual aids in a Health Education Program of a Christian Mission, India undated	Training missionaries in health education and practices
8. Maturiki: a pilot project in community development, Fiji Islands, Pacific, 1952	Community health sanitation program
9. An experiment in community development, Tanzania, 1951	Training course in health practices for community leaders
10. The Pholela Health Center, South Africa, 1951	Health Center and community health education program
11. Health Education Program in Puerto Rico, Puerto Rico, 1952	Development of health education program for schools and communities
12. Two Experiments in Brazil, Brazil, undated	Retraining of health education teachers
13. Rural Health Demonstration and training center, Philippines, 1952	Identifying community needs for the establishment of a Health Education Center
14. Organization of medical care for industrial workers, Delhi, India, 1952	Medical services and education for workers and their families

TABLE 1.--continued.

Title, Location and Date Founded	Mission
15. The New Brodno Hospital, Warsaw, 1972	Organization of services and educational programs for patients
16. Promoting Health Engineering in India, India, 1958	Research center for data collection and training of personnel
17. "Happy Lion" Dental Health Campaign, England, 1969	Dental health campaign for children
18. Experimental Community Mental Health Scheme, South Africa, 1950	Mental health center for outpatient treatment and rehabilitation
19. The Congo Experiment, Congo, 1960	Training medi al assistants to become doctors
20. An Adventure in International Collaboration, Tennessee College, Colombia, 1966-68	Developing programs for graduate and undergraduate medical students
21. Rural Health Unit and Training Center, India, 1966-67	Environmental sanitation action program
22. Urban Health Center, Calcutta India, 1966-67	Health education center for health services and health education
23. Home Care Program for the Chronically Ill, Puerto Rico, 1966	Home care program for chronically ill patients
24. Health Care of Railway Employees in Allahabad, India, 1971	Health services for railroad employees
25. Rat Poisoning Program in a Rural Area, India, 1969	Rat control campaign
26. Summer Camps: an Excellent Way for Children's Health Education, Poland, 1964	Health education in a summer camp
27. Crystal Palace National Recreation Center, England, 1964	Multi-purpose sports center

TABLE 1.--continued.

Title, Location and Date Founded	Mission
28. Integration of Chinese Traditional and Modern Medicine, China, 1953-65	Integration of traditional and modern medicine in China
29. "Mobile Units" anti-smoking campaign, London, 1963-64	Anti-smoking campaign mobile unit
30. "Well Women" Clinic, Norwich, 1967-68	Publicity campaign for cancer diagnosis in women
31. Infant Feeding Program, Morocco, 1961	Infant feeding program in Morotco
32. Acceptance of Sanitary Composting in a Rural Area-- A Case Study, India, 1969	Acceptance of sanitary composting in an Indian Village
33. Dental Health Education Trailer, England, 1961	Dental Health Exhibit, mobile unit
34. Developing a Community Lab. for Medical Teaching Program. A Case Study, Kentucky, U.S., 1966	Developing a Community Laboratory for medical teaching programs. A Case Study
35. Project HOPE, Washington, D.C., U.S., 1958-73	Project HOPE
36. National Society for Crippled Children and Adults, Chicago, U.S., 1921	National Society for Crippled Children and Adults
37. American Cancer Society, New York, U.S., 1913-73	American Cancer Society
38. Family Day Care, Potential Child Development Service, California, U.S., 1971	Family day care: Potential child development service
39. Health Education for Organized Groups of Adults, Minnesota, U.S., 1965	Health education for organized group of older adults
40. Development of a Health Education Program, Northern Mexico and Arizona, U.S., 1940.	Development of a Health Education Program in Northern Mexico and Arizona

TABLE 2.--Distribution of the Sample by Region.   **BEST COPY AVAILABLE**

Region	Frequency	Percent
Asia	12	30.0
North America	8	20.0
Europe	8	20.0
Africa	7	17.5
Latin America	3	7.5
Middle East	2	5.0
TOTAL	40	100.0

TABLE 3.--Distribution of the Sample by Year Founded.

Year	Frequency	Percent
Before 1945	3	7.5
1945-1949	1	2.5
1950-1954	10	25.0
1955-1959	2	5.0
1960-1964	6	15.0
1965-1969	11	27.5
1970-Present	3	7.5
No Date	4	10.0
TOTAL	40	100.0

Mission

Our sample could be grouped into four general categories of purpose:

1. Pre-service and in-service training programs for paramedical personnel and medical students.

2. Health education community campaigns

3. Health services with education programs

4. Program development and curriculum in health education.

Pre-Service and In-Service Training for Medical, Paramedical, Health Personnel, Graduate and Under-Graduate Medical Students

Thirteen programs were included in this group. Eight of them were developed in the urban areas and six in rural areas. Most of these programs were oriented to: (1) provide the students with experiences in community practices; (2) train nurses and paramedical personnel to establish better coordination in the sharing of responsibilities in health care community programs; (3) stimulate cooperation between homes, school and health departments; (4) provide a rapid training for medical assistants to enable them to qualify as doctors; (5) develop day to day working relationships with the community; (6) provide refresher courses for health education teachers; (7) carry out programs of cooperation in the field of health between people in the U.S. and emerging nations (Project HOPE, see annex); and (8) explore the family child care services as a potential child development study and community practicum for child development students.

Health Education Community Campaigns

Falling under this category are community action programs, such as vaccination, cleaning environmental and sanitation campaigns and rat extermination; community meetings for improving community health conditions, and to encourage villagers to participate in community health programs. Of the 40 cases collected, 13 of them were classified in this group, 10 were in the rural area, and 3 in the urban areas.

The main objectives of these programs are to: (I) develop
new attitudes and thought processes which are conducive to action
beneficial to health; (2) stimulate participation of the villagers
in community action programs; (3) improve health conditions of the
family and their community; (4) instill a sense of responsibility
on the part of the individuals and corporate bodies to improve
health standards; (5) encourage understanding of health matters
and acceptar.e of health and sanitary innovations for control of
diseases; (6) stimulate and direct efforts toward community develop-
ment; (7) stimulate the village mothers to be the health guardians
of the family.

Health Services with Education Programs

This category includes all those programs whose primary
purposes are to provide health services and education to the public,
such as, vaccination programs and curative services in hospitals
and health centers.

These health services with education programs are concerned with:
(I) the treatment of sickness and preventive medicine; (2) developing
health education programs through health departments, schools and the
community; (3) providing the best possible care for the severely ill
patient anu the best utilization of the hospital facilities;
(4) providing attractive health education adoption practices for
children; (5) enabling the therapeutic techniques of an ordinary
mental health hospital to be applied to patients who remain in
their own social setting; (6) providing health care services and
health education at the clinic and at home to individuals and groups
so that they accept and promote preventive medicine; (7) providing
treatment and rehabilitation for the chronically ill at their home;
(8) educating the public in the necessity of early diagnosis and
treatment of diseases; and (9) improving health practices and related
problems of malnutritior. in children.

Curriculum and Programs Development
in Health Education

These are programs oriented to the preparation of surveys and
research in order to determine areas in health education which might
provide bases for planning curriculum and health programs. The
objectives of these programs are to: (1) develop statistical data
as a base for rational planning and new approaches to disease control
and curriculum development for medical students; (2) produce
educational and audio visual materials and new teaching techniques
for the medical education students; (3) produce health education
materials to provide to other agencies; (4) act as consultants of
health units and organized courses; (5) discover medical student
educational needs as a basis for course planning, methods of work,
etc.; (6) provide data and information for the development of health
projects, training of staff and for consulting purposes; (7) assist
in the development of programs for graduate and undergraduate students;
stimulate staff members to participate in research and provide
assistance and advice in graduate programs; (8) bring skills and
techniques in medical, dental, and paramedical professions to people
from other nations according to their needs (Project HOPE); and (9)
provide professional continuing education and training for doctors,
therapists, teachers, and scholars, and to provide fellowships.

Sponsors

Most of the programs studied were sponsored by departments or
ministries of government, such as the departments of health, of
education, and of welfare of the different countries. In many cases
the programs were co-sponsored or received help from other organiza-
tions in the form of personnel, materials, or financial contributions.
Table 4 shows the distribution of the programs according to their
sponsor institution.

TABLE 4.--Distribution of Programs by Sponsoring Institution.

Sponsoring Institutions	Frequency
Educational Institutions	6
Industry	2
Religious	1
Mutual Benefit Association	3
Government or Departments	29
International Agencies	5
Foundations	5

Setting

Table 5 shows the distribution of the programs according to
their setting.

TABLE 5.--Distribution of the Programs According to Setting.

Sponsoring Institutions	Frequency
Urban	17
Rural	13
Rural-Urban	10

Participants

The range of participants is wide, varying from illiterate
rural people to medical students and paramedical personnel. Table 6
shows the distribution of the program by participants.

TABLE 6.--Distribution of the Programs by Participants

Participants	Frequency
Village of community population	11
School children and other students	6
Hospital and out-clinic patients	5
Undergraduate and graduate medical students	5
All audiences	5
Physicians, nurses, midwives	4
Organized adult groups and day care mothers	4
Factory workers and their families	3
Field technicians and health education teachers	3
Private and public agencies personnel	1
Professional sports trainers	1

The programs oriented to undergraduate and graduate students were especially designed to provide them with a community practicum opportunity; to relate them with the needs of the people, to develop statistical data as a base for a rational approach to disease control; and to develop a rational curriculum for medical students.

The programs and services for hospital and out of school patients were designed to provide health education and services at the hospital and in their homes so that they could accept and promote preventive medicine, as well as providing them with treatment and rehabilitation.

Mentors

Mentor here refers to the personnel--whether specially trained and certified or not--who teach, counsel, administer, and otherwise staff the enterprise. Table 7 shows the distribution of the program by the type of mentors they employ.

TABLE 7.--Distribution of Programs According to Mentors Employed.

Types of Mentors Participating	Frequency
1. Physicians, nurses, medical assistants	17
2. Health education officials, sanitation inspectors, field assistants, hygienists, health department administrators	16
3. Psychologists, social workers, health teachers, home economists, engineers, researchers	7
4. University Departments of Medicine (professors and staff)	4
5. Local leaders and community agencies personnel	3
6. Special teams of personnel (specially trained for the projects)	2
7. Missionaries	1
8. Government agencies, advisory groups	3
9. Physical education personnel	1

One limitation of this information is that the categories are not mutually exclusive. Each of the cases studied employed more than one type of mentor participating in the operational stage of the program. It was observed that the range of differences in training and professional preparation of mentors varies from rural community leaders to university medical staff. In two of the cases the mentors were specially trained to work in the program. The greatest number of mentor types participating in the program are the physicians, nurses, and medical assistants. This occurred in seventeen of the forty cases reported.

Content or Subject Matter

The subject matter areas of health education identified in the cases are as follows:

Community Health Campaigns	Health Services With Education Programs	Pre-Service and In-Service Training	Curriculum and Program Development in Health Education
Importance of vaccination against smallpox	Child care and rearing practices	Preparation of health education material	Importance of reliable data as a basis for curriculum program planning for medical students education
The use of safe drinking water, prevention of dysentery, typhoid fever, cholera	Nutrition practices	Consulting in health units and organized courses	Determining medical students needs to develop training courses and teaching methods
Focused attention between diet, environment, social and genetic background	Improvement and protecting of health of children and communities	Extending health education to hospitals	Developing models for progressive patient care and education and best utilization of facilities at least possible cost
Blood testing programs for disease prevention	Formation of good health habits in children	Providing practical field for students at the community level	Searching for methods applicable to country's situations to train staff and act as consultants to developing countries
Health education through solving community needs and problems	Practice of dental health care; visit the dentist and clean the teeth	Training medical assistants in medical studies at the University	Exchange of students between universities
Environmental sanitation and domestic hygiene	Anti-natal, post-natal, infant and toddler care	Training teachers in hygiene and health practices	Developing programs in basic science for undergraduate students
Celebration of "Healthy Life Week"	Family Planning	Training medical corps physicians, dentists, and paramedical personnel	Program planning for the training of graduate students. Guidance in research.

Community Health Campaigns	Health Services With Education Programs	Pre-Service and In-Service Training	Curriculum and Program Development in Health Education
Environmental sanitation and domestic hygiene (1) construction of latrines; (2) rat killing	Physical examination for cancer diagnosis and treatment	Working with children of different ages, ethnic and socio-economic background	Defining common health needs and objectives to meet the needs
Mass campaign for smallpox, chloera, tuberculosis prevention		Working with older persons	Providing professional education, scholarships, fellowships.
Education in the use of poisons for rat killing			Preparing printed material in professional education
Action Programs Establishment of health centers. Planting home gardens to improve diet. Clean wells. Clean villages and brush cutback.			Providing research grants for medical studies in cancer, scholarships, fellowships and research.

Mediating System

Mediating system refers to the material, equipment, plant, and processes by means of which direct or vicarious experiences are provided to participants.

Methods

Training Situation (structured, planned sequence); pre- and in-service training course.

Group Situation

Lectures
Meetings
Conference
Small group classes

Individualized Situation

Home Visit
Personal Contact
Counselling
Individual Help

Mass Situation

Speech
Community Campaign

Techniques

Film Making
Field Practice and Research
Demonstrating and Observation
Cooperative Work
Games and Drama

Materials and Equipment

Films and Film Slides
Written Information
Photographs
Puppet Theater
Mobile and Fixed Classrooms
Displays and Exhibitions
Tape Recorder
Posters and Charts

Facilities

Dispensaries
Mobile and Classroom
Domiciliary Visit
Agricultural Farm (therapeutic treatment)
Laboratories and X-rays
University Resources
Rural Health Centers
Puppet Theater
Hospitals

Kinds of Services

Blood testing and vaccination
Health club organizations
Therapeutic treatment
Preventive and curative
Medical practices
Health and sanitation practices
Health check-ups
Treatments and rehabilitation
Family planning
Environmental sanitation
Distribution of milk, cereals

The methods and techniques in the programs varied considerably according to the level of education of the participants to whom the programs are directed. When the participants are more educated the methods used are also more elaborate, more structured and formal in their organization and development.

For instance, the pre-service and in-service training, lectures, short courses, conferences, research, and field practice are most common within the higher education that is designed for doctors, physicians, medical assistants, nurses, health department officials and nurses.

The more informal, less structured methods such as home visits, speeches, health campaigns, personal contacts, demonstrations, small group classes, and cooperative work were used with participants from villages and communities, hospital and out-clinic patients, general audiences, and school children.

From the forty cases reported it was observed that health education and services are commonly delivered to the public through information from health and hospital services and facilities, through the utilization of printed materials, and other audio visual resources.

The education information and health services are delivered to the public through the use of different autio visual materials, films, and film strips, photographs, puppe: theaters, displays and exhibits, tape recordings, posters, charts, graphs, educational games, drama, and recorded information. Celebration of the Health Week, use of rewards for children and younger audiences, and the distribution of give-aways like apples and toothpaste are used in the Dental Health campaigns.

Some facilities used by the different programs were the rural health centers, hospitals and dispensaries, laboratories and X-ray mobile dispensaries, mobile classrooms, "agricultural farm," a complete floating medical center, domiciliary visits for physiotherapy treatments and occupational therapy services.

Evaluation of the Program

Few of the cases studied reported information about the evaluation of their programs. Administrators or reporters of the projects see evaluation as long time goals of the sponsor agency or the program in itself. They believe that as the program continues its development, expected goals would be met. However, some immediate results of the programs are reported in a number of cases. Outstanding improvements and events occurring in the communities that are related to the programs are not generally considered an aspect of evaluation by the administrators.

The following is a list of discernible results which demonstrate achievement and practical changes resulting from the programs:

1. Participation of community groups to improve health conditions

2. Vaccinations and health examinations

3. Treatment of diseases

4. Enhanced local leadership with increased enthusiasm and energy devoted to the health programs.

5. Changing of undesirable health habits

6. Construction of health facilities in the community

7. Improvement of existing health facilities

8. Increased community enthusiasm in health matters

9. Acceptance of health problems in families and communities

10. Awareness of health problems in families and communities

11. Awareness of need of health education to improve health conditions

12. Demonstrated interest in health programs

13. Increasing demands for health programs and services

14. Active participation in health programs

15. Increased health educational and medical services in the community

16. Rehabilitation and recovery of patients

17. Success in medical training of students

18. Other studies and research that came out as result of the program

19. Increasing appreciation by governmental authorities of community health needs

20. Reduction of the rat population

21. Increased utilization of trained medical staff

22. Increasing number of women visiting doctors for examinations

23. Willingness of mothers to incorporate milk, vegetables, fruits, and fish into the diet and to modify infant feeding practices.

Findings and Conclusion

The primary conclusion of the research studied concerning these forty health programs is that the educational function occupies a peripheral or secondary position in the scope of the program. The main concern in these programs has to do with the questions of life and death and the release of pain. Preventive and curative services are the most important to the health center and to the patient. Even though the services provided some education, this is not perceived in that same way by the patients and medical personnel.

The most common category of programs found within the forty cases studied were those grouped as pre-service and in-service training for medical, paramedical, health personnel, graduate and undergraduate medical students. Most of these programs are oriented to provide the students with experiences in community practices. This reflects a trend towards a more functional and service oriented preparation of the medical student as well as a more practical philosophy of instruction by exposing the learners to future client situations where they are, in their own environment, dealing with their own social situations and community problems.

This trend further shows that the future physicians and health personnel have to be trained in sociology, rural life, community development, and in their role as change agents who deal with old ideas and traditions of people.

The second category of programs, the community health campaigns which include community action programs, environmental and

sanitation campaigns, and community health education meetings are
aimed towards developing new attitudes toward health care action
and to improving health conditions of the family and their
communities.

The third category of programs illustrates the need for health
education in developing countries so that new ideas and practices can
be accepted.

The last group of cases, curriculum, and programs in health
care are oriented to research which could provide a more rational
basis for the planning of curriculum and programs for the preparation
and training of medical students.

Implications to Non-Formal
Education Programs

It has been shown in this survey study of health programs
that NFE plays a significant role in the post-education of professionals
in medicine. Specifically two needs are identified related to this
role.

First, there is a need to investigate and to determine those
areas of health care which can provide a more functional basis for
the planning of curriculum and programs for medical students.

Second, there is a need to incorporate direct experience of
community practice into the training and preparation of professionals
in the medical field.

NON-FORMAL EDUCATION CASE-STUDIES IN

HEALTH AND SANITATION

ANNOTATED BIBLIOGRAPHY

1. UNESCO. The Healthy Village. An experiment in visual education
   in West China. Monographs on Fundamental Education, 1951.

    This was a one-year experiment for making audio-visual aids
which could be used in health teaching with partly illiterate rural
populations. The aim was to produce materials which will meet at
least one concrete typical situation. They follow the idea that a
multiple impact on the mind of the subject is more effective than
approach along a single line (the individual is influenced in propor-
tion to the number of different ways in which the same idea is brought
to him). A large variety of media is desirable to reach the subject
through the eyes, the ears, personal contacts, and create a community
consciousness along the line desired. So far as possible let the
people get the credit and feel it is their project. Used local
leaders to speak to the crowd over the public address system and
showed them pictures of themselves or friends being vaccinated or
treated for other diseases.
    The teaching aids were prepared on the topic "The Healthy
Village" in terms of local needs and educational possibilities. They
started with simple media first and then the more complex (posters,
connected story posters, flyers, film-strips, drama, games, animated
cartoons). Evaluation--have a clear understanding of the purpose of
the project which was to induce people to take some definite action
beneficial to health or the change of thinking and habits from
unhealthy to healthy.

2. Gilles, H. M. Akufo, An Environmental Study of a Nigerian Village.
   Ibadan University Press, 1965.

    The Akufo Village area was selected from the collection and
study of statistical and technical information in a rural community.
It was hoped that the development of this center would provide an
opportunity for teaching the elements of community medicine and pre-
ventive medicine to undergraduates and graduates who had received a
basic training in medicine but were not instructed in endemic disease
or properly directed towards community hygiene.
    The Akufo Village scheme was designed to focus attention on the
community and to stress the importance in its medical patterns of the
interplay between diet, environment, social and genetic backgrounds in
a rural population in Western Nigeria.
    Studies of the village were undertaken and surveys of cropping,
dietary patterns, and general nutrition status of the population,

parasitic infections, communicable diseases, genetics, mortality were carried on.

The work in Akufo focuses the attention on the importance of obtaining reliable statistical data and on the urgent need for placing the medical student in touch with his environment and his community.

It also emphasized the view that any rational curriculum suitable for medical students in Nigeria as a representative developing country, requires orientation in the direction of the needs of the community. Every opportunity in the future should enable the medical student to gain experience in a community such as Akufo and to broaden the whole basis of his training by regular contact with village families in their homes.

3. Bogue, Robert and Habashy, Aziz. Health Education Project in Upper Egypt. Ministry of Health, 1952, pp. 43, 62.

A health education program in conjunction with a venereal-disease-control campaign. This was the first time that the population of an entire village was to be subjected to blood testing and since the customs of the people and isolation of the village presented special problems three weeks of pre-service training were given to the workers in preparation for six weeks in the field. The project was carried out largely by trained Egyptian personnel to facilitate good rapport with the people of the village. Every member of the team from doctors to truck drivers were included in the training so that all were able to aid in winning the cooperation of the village people. Simultaneously with the blood testing and organizing health social workers started visiting homes arranging blood tests and organizing health programmes with recreational activities. They were successful in arranging two shows for women in the village. Treatment of the positive cases was begun and people who had been opposed were aiding and delivering speeches. The success was evident as 85% of the population submitted to blood tests. Three hundred received treatment and information for the epidemiological study of syphilis in the village was gathered and follow-up visits to the home of those treated.

The methods used were lectures, visual aids and home visits. A film was made in the village during the campaign and then shown to the people.

4. Olga Mace K, M.D., Central Institute of Hygiene, Zagreb, Jugoslavia. Health Education in Industry--A Case History.

In the factories the need for health education was felt.
(1) Physicians started delivering lectures on typhoid, tuberculosis, rheumatism, after work.
(2) Physicians used to write lectures that were read at labor meetings. (This type of education did not prove successful either).
(3) The Department of Ind. Health undertook the task of introducing socio-medical work into the factory health centers. The factory

administrators were reluctant to accept the idea but after some attempts
with doctors, meetings, exerting authority as health inspectors, they
achieved the extension of recreation time from 15 to 30 minutes; they
gained the confidence of workers and became popular among them. In the
half hour recreation time they answered questions, presented lectures,
showed slides, flannel graphs, film strips. At the same time they
started helping individual social cases; then teamwork was instituted
and the use of voluntary leaders. Seminars with the administrators and
foremen were organized about frequent incidents on work time,
accidents, tiredness, nervousness, relationships between foremen and
workers and foremen and superiors, the psychology of work, etc.

They started planning for long term activities. The qualifi-
cations for public health nurses to become health educators were
increased.

They talked more about health than about diseases. Their
activity in the factory was not restricted to preventative work but
extended to health education and socio-medical work as well. There
were no limits.

5. Fundamental Education. Pilot Project in Health Education in Egypt.
    A Quarterly Bulletin, Vol. IV, No. 2, April, 1952, p. 67.

It was the first time female social workers were used in the
villages. They tried to encourage the mothers of the village to be
the health guardians of the family. The aim of the project was to
take constructive action on felt needs which could be met with few
resources. In each community the local leaders in cooperation with
community agencies raised a fund, and the first step was to draw up
a list of the most pressing problems, such as lack of latrines, lack
of windows in the houses, bad water supplies, trachome, stabling of
animals in houses, bathing in irrigation canals, risk of infection.
To interest the villagers, photographs were taken of them dealing with
these problems in an effective way. Photographs proved so popular
that they were made of families who achieved the most and presented
to them.

The social workers made home visits that were carefully planned
and proved to be highly successful in inducing the mothers to change
old habits of bad health.

Its success was evident and village committees--all men--
expressed interest in having professional women social workers in the
future.

6. Fundamental Education. A Programme of Health Education in Uganda.
    A Quarterly Bulletin, Vol. IV, No. 2, April, 1952, pp. 62-63.

Health problems in Uganda can be divided into two groups,
environmental sanitation and domestic hygiene.

The main effort has been directed toward the environmental
problem. Assistant Health Inspectors (Africans), had been posted in

rural areas where they work with leaders and local government institutions. At first their work was on a more individual basis, but as government councils were established their work has been directed more to the agencies. Organized the health weeks and provided lectures, demonstrations, and films. The program has widened to include instruction in hygiene, agriculture, animal husbandry, mass literacy, and the work of cooperative societies.

Experience has proved that hygiene instruction by modern methods is of very limited or even negligible value unless it is followed up by the older technique of systematic inspection. Rapid improvements are only achieved and changes understood when information is carefully presented by modern methods and when there are enthusiastic chiefs, efficient Assistant Health Inspectors, and an energetic local government council.

Instruction in domestic hygiene has been provided in African girls schools and infant welfare clinics for women. Some progress has been achieved but theory too often failed to find adequate expression in the African home.

It will be necessary to follow up and reinforce these methods by the use of trained African women working or health visitors.

7. Rev. Denys J. Saunders. <u>Visual Aids in a Health Education Programme of a Christian Mission.</u>

The aim of the health program was to improve the general standard of health of all those in Medak compound. To encourage an understanding of health matters, to establish good habits in children and students so that their influence and example may benefit in the hundreds of villages of the district.

The program was worked out on a monthly basis and it covers eight of the main diseases or groups of diseases in the course of a year. Each month brought to a climax a "Healthy Life Week." Many audio-visual methods were used to get the information over to the people. Based on the principle that visual teaching materials can make the learning process more concrete and memorable, the various teaching methods must be tied firmly together if they are to be of use in the learning process. They also concentrated on linking health teaching with people's personal experiences. Every effort was made to associate the preventative and remedial measures with the day-to-day experiences of the people. An effort was made to create community consciousness along the lines desired so that everyone could participate in the mass action results.

8. Hayden, Howard. <u>Moturiki: A Pilot Project in Community Development</u>. London: Oxford University Press, 1954, 180 pp.

Project's advisory group, experts from various government departments trained and used a purely Figiam team to stimulate and direct efforts toward community development.

The Figiam team was able to achieve the following things: (1) a small clinic was built on reclaimed land. Through regular clinic treatment and a health education campaign, yaws almost completely disappeared from this land, a milk scheme was introduced into the schools, the diet of the people was improved by the planting of new vegetables and demonstration of new ways of cooking. Wells were cleaned and lined; villages cleaned and the brush cut back. The most lasting results were obtained from work with the women. The team was withdrawn at the end of two years with the success of its methods assured.

9. Prosser, A.R.C. "An Experiment in Community Development." <u>Community Development</u>, Vol. II, No. 3, June, 1951, p. 52. London: Community Development Clearning House.

Two women from one hundred selected villages were chosen to participate in a course in health practices. Midwives were present within the group.

The course was developed while a film was being made called "Amenu's Child," the program was related to health problems in children and malnutrition. A mass education team was organized to develop the course and practices.

Great enthusiasm was recorded and the presence of midwives facilitated the acceptance of the practices and new knowledge in the villages.

10. Kork, Sidney L. and Cassel, John. "The Pholola Health Center: A Progress Report." <u>South African Medical Journal</u>, Vol. XX, No. 6, February, 1952, pp. 101-104; Vol. XXVI, No. 7, February, 1952, pp. 131-136. Capetown: Medical Association of South Africa.

Doctors and nurses--preventative and curative medicine. This was a health education program with emphasis on care of the sick and preventative medicine. Trained nurses, through community visits and client contacts, carried on health information and developed practices in health community needs and helped in the understanding of preventative and curative medicine.

Doctors and nurses took one aspect of the program and trained nurses made contacts with the community. The results were an increasing appreciation of the community's health needs, understanding of the health situation of the families in the community. The curative, preventative and promoting health services were closely integrated.

11. Maria Zalduondo. "The Health Education Programme of Puerto Rico,"
     Fundamental Education, a Quarterly Bulletin, Vol. IV, No. 2,
     April, 1952.

          A team of health educators trained at North Carolina and
     Michigan University with a Masters Degree in Health Education, were
     assigned to the Department of Education, Office of Health Education,
     Department of Health, to develop a health education program through
     the schools and the community.
          The main objective of the school health program was to maintain,
     improve, and protect the health of the school child and the community
     in which he lives. To carry out the program they had 24 field
     technicians assigned to school districts in the island and a supervisor
     at the central office. The field technician organized and developed
     the program of the school of his district. They organized in-service
     training for school personnel around problems of school environment,
     screening tests for eyes, ears, weight, daily observation of pupils,
     communicable diseases, mental health, health instruction, safety and
     first aid. The program of the Department of Health planned,
     organized, and directed the health education program according to the
     needs and resources of the island. It acted as consultant to the
     public health units and assisted non-official agencies and other
     groups in the organization of health education materials.
          The Central Office of the Bureau of Health Education carried
     on the in-service training for the health education in the field.
     It maintained close cooperation with other agencies and planned
     and coordinated activities as far as it was possible.
          Prepared health education materials to provide to other
     agencies. Extension of health education to government hospitals was
     one addition to the program; the hospital program included in-service
     training, education activities with out-patient department for inmates
     and visitors, recreational activities, consultation services. Demands
     for more services showed that poeple were becoming more aware of the
     fact that health education was a necessity if the health conditions
     of the island were to be improved.

12. Hortensia de Hollanda, Manuel Jose Ferreira and Howard W. Lundy.
     "Two Experiments in Brazil." Fundamental Education, a Quarterly
     Bulletin,   Vol. IV, No. 2, April, 1952.

          The purpose was to (1) provide an intensive refresher course
     in modern teaching methods and subject matter for the health teachers
     of the normal school and to revise the health curriculum. Participation
     in the course was a partial justification for salary increments. It
     was a demonstration project. The central theme was cooperation
     between home, school and health department.
          Organization of the course: Discovered the needs of the
     students (pre-test, discussion, review of the health problems of the
     state), the methods used included lectures, demonstrations, laboratory,
     field practices, seminars, committee work and individual projects,

Twenty-four teachers completed the course. Revision of the curriculum:
There were many problems on which decisions were needed from the
health and education state departments. The health specialists were
called to serve as local coordinators between the schools, the health
and education department, and the normal schools. These specialists
would train the rural teachers (6-7% were normal school graduates).
A nuclear system for providing services in the rural areas was
created. Each organization contributed with funds, personnel, and
materials. The local full-time staff consisted of three elementary
school teachers, one agronomist, one home economist and one sanitarian.
The coordinated approach made possible to mobilize all forces and
solve the problems with the highest priorities. It appeared that a
community center approach combined with a "nuclear" system may be an
effective way to bring government services to a rural area. The
people showed a definite interest in the planning and execution of
projects which benefited both the individuals and the community.

13. Theodora V. Tiglao. "A Total Health Education Programme for the
    Philippines: A Necessity and a Possibility." Fundamental
    Education, a Quarterly Bulletin. Vol. IV, No. 2, April, 1952.

A house to house survey brought to light unfavorable health
conditions, poor sanitation and malnutrition of the area (57% of the
houses had no form of toilet, 34.5% depended on surface wells and open
springs for drinking water; the incidence of parasitism was high).
A malarious region. High infant mortality, undernourishment in pre-
schoolers, anaemia, skin diseases, multiple dental caries and other
infections, high incidence of tuberculosis, etc. These conditions of
malnutrition existed despite an abundant supply of food such as
vegetables, fruits, poultry and hogs. The trouble was that the
people preferred the monetary returns of their products to their
nutritive value.

There was a state of ignorance of the importance of the correct
use of foods, a clinging to old food practices and superstitions. Lack
of adequate medical care. Mothers did not see the need for pre-natal
care. Biases and prejudices barred people from seeking medical care
and starting the program. Potential leaders were approached. Community
meetings were held and top ranging government officials were invited
to give the people the chance to voice their sentiments, problems and
needs. Citizens committees were organized to bring needs to the
attention of officials.

The health program informed the people about the services
offered. The Health Demonstration Center established better public
relations and gained public support, held conferences and in-service
training meetings for physicians, nurses, midwives and sanitarians.
The center helped in improving school health programs, and in the
organization of PTA groups. A school health physician and school
dentist were assigned to the Center. They introduced the preventive
and educational aspects of the school health program. A notable change
in the health attitude and behavior of the people was produced. They
realized that under the existing conditions of the area health educa-
tion was a possibility.

14. J. K. Dwive di, M.S., F.I.C.S. "Organization of Medical Care for
    Industrial Workers in India." World Hospitals. Vol. IV, No. 2,
    April, 1968, pp. 72-74.

Industrial workers were insured against diseases, disability,
and childbirth; maternity and medical benefits were the most important
provisions. Workers got free medical care through special dispensaries,
panel doctors, hospitals, domiciliary visits by doctors and mobile
dispensaries. Special services, hospital and ambulance services were
also free. The cost of this service was met by a system of contri-
butions from employers and the employees. By the end of March, 1967,
it covered 17,103 factories, involving 3,288,750 insured worker family
units. The families of insured workers were also entitled to free
medical facilities with the exception of hospital care. The scheme
was still undergoing expansion and more centers were being created
all the time.

15. Stefan Zielinski, M.D. "The New Brodno Hospital." World
    Hospitals. Vol. IV, No. 1, January, 1968, pp. 9-12.
        Pergamon Press, Oxford, London, New York, Paris.

The Brodno District Hospital was designed to operate on the
principle of progressive patient care. It included all medical
specialties with the exception of pediatrics and infectious diseases
and had full facilities for rehabilitation. Wards were assigned to
medical specialties, but patients were grouped according to the
severity of their illnesses and their medical and nursing needs,
regardless of the nature of their diseases. The concept of progressive
patient care was designed to provide the best possible care for the
severely ill and optimum utilization of the hospital's costly
facilities. It also made possible a reduction in the running cost
of the hospital, since facilities for the care of the severely ill
did not have to be duplicated in every part of the hospital. Pro-
gressive patient care implemented the most critically ill patients
housed together in a unit equipped and staffed for intensive care.
When they improved they were moved to other sections of the hospital
where there were fewer medical staff but more staff concerned with
rehabilitation. Towards the end of their stay in the hospital, the
patients were moved to a unit where conditions were similar to those
they will experience in their own homes.
The Brodno Hospital suggests that the cost is likely to be
high. However savings will be achieved by the inclusion in the
project of such facilities as a district dispensary, a rehabilitation
center, a first aid station and pharmacy. The centralization of some
facilities such as operating theaters and diagnostic departments led
to an economization.

16. <u>WHO Chronicle.</u> "Promoting Public Health Engineering in India."
    Vol. XXIII, No. 10, October, 1969. Geneva, Switzerland, pp.
    480-4J9.

   Undesirable health situation in India was apparent in the
country's death and morbidity rate. The Research Institute of India
from 1958 to 1961 has estimated that at any given time 30-50% of all
people in India were suffering from some disease. This was attributed
to contagious enteric infections spread by contaminated food, water,
and wastes. In 1958 the Central Public Health Engineering Research
Institute of India at Magpur, was established. It was the first
project carried out under the United Nations Special Fund, now part
of the United Nations Development Program. The task of the Institute
research program was to provide basic data that can be used by public
health authorities, industry and other private or public agencies for
the design of more efficient and more economical sanitary processes
and health installations in urban and rural areas, with particular
emphasis on water supplies, waste-water treatment, and the control of
water and air pollution. It strived to find the best methods applicable
to the particular needs and conditions of the country, with special
attention to existing methods, to available academic facilities and
a trained staff, to ancillary industries, and to national socio-
geographical patterns. Staff members of the Institute have acted as
consultants to countries with similar public health problems, and its
program should offer a satisfactory prototype for similar programs in
other subtropical developing countries.

17. Alan Hilton. "Happy Lion" Dental Health Campaign, in the
    <u>Health Education Journal</u>, ed. by Dr. A. J. Dolzell-Word, June,
    1970. London: The Health Education Council Ltd., Lynton House
    7-12 Tavistock Square.

   This was a dental health program for children 5-7 years old.
The idea of a mobile unit arose as a result of the requirements for
a dental health campaign. The campaign took the form of a dental
health club with the headquarters based on a mobile caravan unit.
A Happy Lion Clean Teeth Club was formed, complete with membership
badges (lapel type), membership cards, and a club song. A 20 foot
caravan was purchased, its interiors removed, and it was equipped
as a mobile classroom with displayed pamphlets, a film projection
screen, and a puppet theatre with proscenium and draw curtains.
Puppets of all characters involved in the story of the lion were
supplied and manipulated by the children; there were seats for
children and a desk and a chair for the teacher, storage space for
campaign materials, apples, toothpaste, etc. A sound projector and
tape recorder were included in the equipment. The caravan was towed
from school to school by a Land Rover van of the Health Education
Unit. On occasion health department staff and dental offices
participated in the campaign.

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During the campaign children were enrolled as members of the
club. Lapel badges were distributed and membership cards issued. The
membership included a promise that members will clean their teeth at
least twice a day in the manner described and visit the dentist not
less than twice a year. Remarks: The unit was a continuous form of
dental health campaigning. It was relatively cheap to buy and equip.
It had a high appeal to the children; the puppet theater was easily
understood and easy to handle. The small rewards maintained the
interest of the children and provided a basis on which teachers could
continue dental health education. It made minimum demands on Health
Department staff as all workings of the campaign were carried out by
the school staff where the unit was based.

18. Professor Adeoye Lambo. The Village of Aro. On Medical Care in
    Developing Countries. Edited by Maruice King, M.A., Cantobi,
    M.R.C.P. Lond. based on a conference assisted by WHO/UNICEF.
    Nairobi, Oxford University Press, Lusaka, Addis Ababa, London,
    1966, pp. 20; 1-20:7.

The hospital serves a large part of Western Nigeria and
patients come from other parts of West Africa. Patients were boarded
out in a village house held near the hospital and they must have one
devoted relative to stay with them all the time. The purpose of the
Center was to enable the therapeutic techniques of an ordinary mental
hospital to be applied to patients who remain in their social environ-
ment. The hospital had the facilities of any up-to-date mental
hospital of 200 beds including electroplexy, modified insulin therapy
and abreactive techniques as well as modern drug medication. When
formal treatment was over, patients were given occupational therapy
and returned with their relatives to their village lodging late in
the afternoon. A nurse was always on duty in the village to reassure
its inhabitants and to deal with insomnia or other troublesome
symptoms that might arise. She was assisted by a guide who also
looked after the relatives of the patients. Not only the most
socially adoptable patients could be treated in this way but even
violent cases have been successfully treated in the village. Some
with aggressive and anti-social tendencies in their homes have
become quite manageable once settled at Aro. Not every case is
cured, and those that failed to recover are placed in "Aro hospital
village, Aro farms" where they do agricultural work, best suited to
the chronic psychiatric patient. They were supervised by hospital
authorities and their relatives who usually return home but were able
to visit them regularly. Many patients had even built their own
huts on these farms as an indication of their willingness to settle
in the area.

19. WHO Chronicle. "The Congo Experiment." Vol. XXIV, No. 10, October, 1970, Geneva, pp. 453-456.

After the declaration of independence in 1960 the Republic of the Congo was involved in a civil war. The health services administered by Belgian doctors were in chaos. There was not a single qualified Congolese doctor and the WHO was called in for help in the rapidly deteriorating health situation. The first priority of WHO was to mobilize the remaining medical personnel to prevent the outbreak of serious epidemics and support the medical services. The next priority was to lay the foundations of a health service which the Congolese could run themselves with the minimum of external help. One of the suggested measures for the second priority was the rapid training of existing medical assistants to enable them to qualify as doctors. Thus 60 medical assistants were selected for the first year to be trained in France. It became known as the Congolese Experiment for no one could foresee the results. Apart from the academic problem of trying to convert Congolese medical assistants into qualified doctors in the short space of three years, there were many human problems created by uprooting sixty middle-aged persons with their families to five French provincial university towns.

The experiment succeeded and in 1963 all the medical assistants returned to the Congo as qualified doctors. They proved themselves to be competent medical practitioners. Some of them have become medical and surgical specialists and many occupy or have occupied positions of high responsibility in the Democratic Republic of the Congo.

20. Gerald B. Spurr, Richard R. Overman, Louis M. Borrero and Henrique Tono. "An Adventure in International Colloboration." Journal of Medical Education, Vol. XLIII, No. 9, September, 1968, pp. 989-1005.

The purpose of the joint endeavor was to help the Departments of Physiological Sciences, Anatomy and Biology to maintain their already high standards of teaching during the periods when members of the faculty were engaged in an advanced training in the United States. The purpose from Cali viewpoint was to provide support to the medical school in Cali during its developmental stages which would lead to lasting improvements. The major effort was directed toward perfecting and completion of what was already underway at Cali rather than promoting radical changes which might have been out of context with local plans and conditions.

During seven years this program of collaboration between the medical units of these universities, was developed. The program was initially designed to aid the teaching program in basic sciences for undergraduate medical students. With the return of a number of Ph.D. trained faculty to Cali, there was a shift in emphasis to assist in the development of a graduate training program for the production of future basic science faculty for all Latin America, to stimulate and

guide the younger staff members in research, and to provide assist-
ance and advice during the developmental phase of a graduate program
which would eventually train the scientists.

21. Rural Health Unit and Training Center, Singur. All India
     Institute of Hygiene and Public Health, Calcutta, July 1966 yo
     June 1967. 110 Chittaranjan Avenue, Calcutta, pp. 58-71.

          Health Services, Environmental Sanitation campaigns, and
community action programs were started in colloboration with the
people and the Center. Communicable disease vaccination, health
education programs, and group meetings with health films, were pre-
sented in various community villages. A course to train teachers and
home visits for ante-natal, post-natal, and infant and toddler care
was started by domiciliary midwives. Family planning and educational
meetings were collaborated in villages for men and women. Exhibi-
tions and poster displays were used as well as distribution of
literatures.

22. Urban Health Center, Chetla, Calcutta. All India Institute of
     Hygiene and Public Health, Calcutta, July 1966 to June 1967.

          The Center emphasized health education of the people in the
area, both at the clinic and at home, individually and in groups. In
order to promote the spirit of "self help," the Center continuously
endeavored to involve the community in all its projects.
          Health Education Programs organized mass campaigns on smallpox
vaccination, cholera prevention in slums, and consultant services.
Environmental Sanitation, Public Health Laboratories, specialized
services, family planning programs integrated with other services like
Mental Health, tuberculosis, and nutrition. School Health Section
provided preventive and curative medicine services to the school
children and the Nutrition Clinic gave consultation and follow-up
services to patients of malnutrition. The Industrial Health Clinic
orovided total health care to workers of small industries. The
Mental Health Clinic provided daily supply of UNICEF skimmed milk to
mothers and children, diagnostic and outdoor treatment, and emphasis
on child guidance and early detention cases. Social Welfare was
almost confined to tuberculosis cases and mental health problems.

23. Quinones, Sally F. "The Home Care Program for the Chronically
     Ill and the Aged." Paper presented before a joint session of
     the Health Officers, Food & Nutrition, Medical Care and Public
     Health Nursing Sections of the APHA. Ocbiter, 1965, on AJPH,
     Vol. LVII, No. 2.

          A professional team specializing in social work, nutrition,
nursing, physio-therapy and occupational therapy was appointed to
provide treatment and rehabilitation services to the chronically ill

and aged, through a properly trained professional team. All services were to be rendered in the patient's home. Patients were required not to be in need of 24 hour medical-nursing care and their condition must prevent them from attending the outpatient department of hospitals.

Frequent group discussions considering each patient rendered an ideal opportunity for the proper understanding of their related conditions; thus their management, treatment, and rehabilitation became one of excellent medical quality. This was gradually achieved through a feeling of a familiar, sincere, and humanized relationship between patient and physician. New clinics were added to the program. Full time physicians started visiting home care patients.

24. Banerjee, P. N. "Health Care of Railway Employees at Allahabad." Indian Journal of Public Health, Vol. XV, No. 4, October, 1971.

Aht Allahabad division of the Northern Railways covers a total of 1098 kms. and has nearly 36,500 employees. The division had three hospitals and two health units.

Health check-up of employees was provided at the time of entry and periodically thereafter. The Maternal and Child Welfare Services along with the school look after the health of the mothers and children. Children received immunization against communicable diseases.

Family Planning work was under the A.M.O. (F.P.) at Allahabad and were assisted by the District Extension Educator. The division organized vasectomy camps in 1969-1970 and 522 persons underwent the operation. Specialist services were available at the division hospital, pediatric, diabetic cardiology, or the poedic, dental and chest clinics. The chest clinic under an AMO/CC had beds attached to it and new TB cases were admitted for investigation. Education was given and treatment and reaction to drugs observed. Domiciliary treatment was rendered through health visitors and doctors.

The railway division of Allahabad covers its employees with a comprehensive health care program commensurate with the resources available.

25. Srivastava, P. K. "Experience of Rat Poisoning Programme in a Rural Area of U.P." Indian Journal of Public Health, Vol. XV, No. 3, July, 1971.

A national rat control campaign through an integrated use of anti-coagulant and acute poisons, rodafarin and zinc phosphate respectively. Cooperation of the village was achieved through the efforts of extension educators who were largely responsible for the total coverage and the success of the program. Rapport with the villagers was established and meetings were organized in the village; discussions were held with the prominent village leaders. Rat control education was given to householders, and the methods and techniques were explained to them.

Raticidal baits were used in the houses. Initially the anti-
coagulant baits were used but in the later stages acute poison baits
were also used to wipe out the residual rat population.

Program appraisal was done by way of the villagers' comments
about the program's effectiveness and through the rat density
measurement by trapping inside the home. The observations indicate
that community rat programs with anticoagulant baiting (Rodafarin)
did tend to reduce the rat population to low levels but did not
eradicate them. Baiting programs need to be repeated after three
months to produce a lasting effect.

26. Mencel, Tygmunt, Ph.D. Poznan, Poland. "Summer Camps: An
Excellent Way to Children's Health Education." Health Education
Journal, Vol. XXII, 1964. The Central Council for Health
Education.

Organizing of experimental activities in the sphere of health
education during one summer camp. Medical and health work at the
camp started with: (1) a thorough check-up of hygiene and the
sanitary state of the premises--kitchen, supply dispensaries, dining
room, assembly room, corridors, lavatories, garbage disposals;
(2) an examination of the children, identification of sickness and
special treatment; (3) planning of a well-balanced menu for the
week; (4) planning an acceptable program of occupations at the camp;
(5) checking surroundings for sanitary states; (6) proper attention
to safety problems and ever-present possibility of accidents;
(7) elaboration of a detailed plan of medical and health sanitary
duties. The installation of good habits in the sphere of personal
hygiene was one of the most important tasks of the plan. Habits of
health education emphasized through the camp activities used
cleanliness of hands and nails, washing hands before eating, washing
hands after leaving the toilet, brushing teeth morning and evening,
cleanliness of feet, cleanliness of shoes, changing indoor shoes
after coming home, care of the hair, change of daytime underwear,
and folding clothing for the night.

Practice demonstrated that positive results of health
education in summer camps depended upon a good preparation and
supplies of a suitable material, of a methodological didactic
quality as well as an adequate choice and training of the educa-
tional, medical, and health personnel.

27. Central Council of Physical Recreation. "Crystal Palace
    National Recreation Center." Health Education Journal,
    Vol. XXI-XXII, 1963-64, p. 108.

    The first multi-purpose sports center built especially for
that purpose provides a service to sports institutions, emphasizing
training. Available to governing bodies of sports, local education
authorities, and voluntary youth organizations to be used on a
residential or non-residential basis for training courses and con-
ferences for coaches, leaders, and for players wishing to improve
their standard of performance. It has excellent spectator accommo-
dations for competitive events, demonstrations and displays, and can
offer pre-match training facilities for British Commonwealth and
foreign teams. The public will be able to use its facilities when
these are not required for training events. A hotel accommodates
140 in single and double rooms with private bathrooms. It includes
Sports Hall for indoor activities and swimming, a stadium for
12,000 people, a hockey field, hard lawn tennis courts, and
tormacadam courts for netball and basketball.

28. Ailon Shiloh, Ph.D. "Programming the Integration of Chinese
    Traditional and Modern Medicine." Prepared for the Association
    for the Advancement of Science Meeting, December 30, 1965,
    Berkeley. Health Education Journal, Vol. XXVI-XXVII, 1967-68,
    pp. 37-43.

    Many of the Chinese traditional practitioners (500,000) were
registered by the government and given basic courses in sanitation
and disease diagnosis and treatment. They attended refresher courses
at central colleges and institutes, and have an official entry to
modern medical services. Provided with official government and
medical recognition and support, these Chinese traditional medical
practitioners are achieving a professional status unique among their
profession. Until 1958 there were 12,000 modernly trained
physicians. By 1965 there were 100,000 trained physicians, 450,000
qualified nurses, midwives, pharmacists, and technicians, but these
numbers are insufficient to meet the needs of the Chinese medical
care program for the massive, widespread rural as well as urban,
millions of people.
    This positive utilization of a supervised and trained local
existing resource to help meet a critical medical staff problem is
perhaps the most successful development of the entire Chinese
program.
    As a direct result there has been a dramatic fall in the
Chinese death rate, particularly among infants, and this plus the
continued high birthrate indicates that if the present trends con-
tinue, the total population of China in 15 years will be one billion.
    Clear documentation and evaluation of the program is still
needed. The program has demonstrated that Chinese traditional
medical practitioners can be positively integrated into the practice
of modern Western medicine.

29. Davies, Bonner R. "Mobile Units: Report of the First Six
     Months of the Anti-Smoking Campaign." Health Education Journal,
     Vols. XXI-XXII, 1963-64.

At a summer school at Bangor, the graduates received training
in the importance and scope of Health Education. They then went into
an intensive course of the C.C.H.E. headquarters in Tavistock Square.
They were trained in the use of visual aids, lecturing, discussion
and methods suited for different types of audiences.

The school's normal classes were ideal settings for the dis-
cussions. Audiences of all kinds were also visited: ante-natal
clinics, rotary clubs, public meetings, but the school proved to
be the most successful territory. They communicated the dangers of
smoking, used the mobile unit to follow-up the local health
authorities and the teachers.

Films were used but film showing does not leave enough
opportunity for the most important part of a session, that of questions
and general discussion. Children showed a keen interest; in one
school pupils themselves formed an anti-smoking club. In others they
prepared colorful anti-smoking posters and have shown an eagerness
for information on how they can help their parents to give up the
habit.

At the introductory period it is difficult to assess the
effectiveness of the campaign, but it seemed to be having a positive
impact. The problem cannot be resolved in weeks or months, but it is
encouraging that a good measure of success has resulted from
enthusiastic cooperation between the mobile units and the local
authorities.

30. Murdock, J. R. "Well Woman Clinic." Medical Officer of Health,
     County Borough of Norwich. Health Education Journal. Vol.
     XXVI-XXVII, 1967-68.

The purpose of the program embraces the taking of a history
of a woman, with emphasis on obstetrics and gynecology, height and
weight measurements, a clinical examination of heart, chest and
abdomen, examination of breasts, pelvic examination and the taking
of a cervical smear, rectal examination, urine test and haemoglobin
estimation.

A publicity campaign was started to urge women to see their
family doctors for a check-up. A poster was designed which had con-
siderable impact. Copies of the poster with a covering letter were
distributed among family doctors, chemists, women's organizations,
and Norwich employers. A press conference was arranged at which the
local newspaper and the BBC were presented. A movie was used and a
leaflet produced by the Cancer Information Association. The number
of women that visited their doctor for examination increased
considerably as a result of the publicity campaign.

31. Mrs. Z. Hober, Consultant, Health Department, American Joint
    Distribution Committee, Geneva. "Infant Feeding Program in
    Morocco." The Health Education Journal, Vol. XXII, May, 1964.
    The Central Council for Health Education, pp. 67-75.

    Planned and established by the American Joint Distribution
Committee, sponsored by the Central British Fund for Jewish Relief
and Rehabilitation and the British O.S.E. Mothers attended with
their children the Maternal and Child Health Center of the O.S.E.
in Casablanca.
    After examining the health records of infants and young
children and comparing them to those of previous years, improvements
were found in the state of health and nutrition as manifested by
lowered morbidity rates of certain infectious diseases. Examining
weight records they found that children at birth were similar to
other children in more developed European countries, but by the age
of 52 weeks they were .52 kilos less. After an analysis of customary
feeding habits, it was found that children didn't eat fruit,
vegetables, meat, or fish. An infant feeding program was established,
aimed at teaching mothers which foods were suitable for infants and
young children at various stages of their growth, how to prepare
foods, and how to feed the child. It also hoped to improve family
nutrition.
    The program consisted of cooking demonstrations, home visits
to help mothers adapt techniques learned at the Center, simple group
instruction to pregnant women and nursing mothers, distribution of
milk, cereals, and other food to mothers from very low income groups.
    Mothers responded well to the program; they were interested
in the demonstrations, and were willing to modify infant feeding
practices. Many began to incorporate milk in the family diet and
use more vegetables, fruits, and fish. The program was extended to
include children in the 2nd and 3rd years of life and to other
towns where O.S.E. conducted health programs.

32. Srivastava, P. K. "Acceptance of Sanitary Composting in Rural
    Areas (Case Study)." Indian Journal of Public Health, Vol.
    XIII, January, 1969, pp. 30-35.

    A field assistant was posted in the village to carry out the
health education program. The educational material was prepared by
a trained health educator under whom the assistant got regular
guidance and help.
    The program consisted of imparting education on sanitary
composting, fly and fly born diseases, and ensuring people to
practice composting for their household wastes. Individual contacts
were made. Cyclostyled lessons were distributed to literate persons.
Charts, folders and flannelgraphs were also shown to them. The
life cycle of the fly was demonstrated four times at different places
by breeding the fly in cattle litter and cow dung, especially
prepared in cages.

Five mass meetings and 31 group meetings were held in dif-
ferent localities of the village. Active village leaders were
persuaded to narrate their experiences regarding the advantages of
compost pit manure on fields. The people who volunteered to
construct the pits were given subsidy in the form of bricks and
cement. People are more receptive to change if some immediate
advantage is readily observable.

33. Whitehead, Patricia, Dental Health Education Officer, The
    General Dental Council. "Dental Health Education Trailer."
    Health Education Journal, Vol. XXVIII, 1969, pp. 114-117.

Use of mobile unit for a permanent dental health exhibition
at agricultural shows and toured the country providing a ready-made
dental health display which might attract audiences who might other-
wise be unaware of the need to look after their teeth. The first
exhibitions were designed for adults and consisted of photographs
with captions in a continuous display around the walls. Statistics
on the incidence of decay in children shown from a projector placed
on the counter at the front of the trailer was a good way to attract
the public. The poeple who had seen the trailer at agricultural
shows wrote asking for further information. It was encouraging
that the public was sufficiently interested to ask for information,
and the next year the display was enlarged with a viewer combining
twelve slides which showed the processes of tooth decay, the
structure of the teeth, and stages in their eruption. So many
requests were received from local authorities to borrow the trailer
that the Council agreed in 1964 to tour it to schools. In 1964 the
display was designed so that it appeared as far as possible for
children and adults. The Fruit Producer's Council agreed to provide
supplies of apples for children. Children were invited to eat a
piece of liquorice, look at their teeth in a mirror, then chew an
apple to see how it cleans the liquorice away. On one occasion
25,000 apples were delivered. The Health Department described the
show as the most successful event. The unit is managed by dental
offices, hygienists, auxiliaries, or nurses.

34. Welsh, Kenneth S., M.D. and Kurt W. Deuschle, M.D. "Develop-
    ing a Community Laboratory for Medical Teaching Programs: A
    Case Study." Journal of Medical Education, Vol. XLIII, No. 9,
    September, 1968.

Development of a day-to-day working relationship with a com-
munity that would be close enough to Lexington to facilitate travel
for students and faculty, yet far enough away to permit the examina-
tion of a community health situation without the bias that an
adjacent university hospital with its vast health resources could
effect. The focus of the educational program was on identifying
the health needs of the community and determining the best way of

meeting these needs either through more effective use of existing
resources or through development of new health service resources.
Students planning involved (1) definition of health needs of the
community; (2) definition of reasonable objectives for programs to
help meet the defined needs; (3) establishment of a program of
activities to help accomplish the objectives; (4) development of
provisions at each step for evaluation of activities. The responsi-
bilities of students were: to prepare appropriate medical workups,
to perform in-depth studies of families representing the spectrum
of the socio-economic conditions in the county, to prepare a fairly
detailed community study, to conduct simple field research.
Remarks: The community medicine teaching laboratory has benefitted
the university through its use as a teaching resource while benefitting
the community through the service aspects of various teaching
activities.

35.   Council on Voluntary Health Agencies. "People to People Health
      Foundation (Project HOPE)." Directory of National Voluntary
      Health Organizations, American Medical Association, 1964, pp.
      159, 160.

         The goal of this project was to carry out a program of coopera-
tion in the field of health between people in the U.S. and people in
newly emerging nations. It brought the skills and techniques
developed by the American medical, dental and paramedical professions
to the people of other nations in their own environments adopted
specifically to their need and way of life.
         A symbol of Project HOPE is the teaching-training hospital
ship S.S. HOPE, formerly USS. Consolation, recovered from the U.S. Navy
in 1960. It is staffed by a permanent medical corps of more than 80
physicians, nurses, and paramedical personnel and augmented by
rotating groups of 30-35 physicians and dentists who serve for two
months at a time without pay. The S.S. HOPE is a complete floating
medical center. It is equipped with three operating rooms, several
wards, and complete laboratory and X-ray facilities. During medical
missions in Indonesia, South Viet Nam, and Peru, the medical corps
has trained nearly 2,000 physicians, dentists, nurses, and paramedical
personnel. Over 4,000 operations have been done and nearly one half
million people have been immunized. In all nations HOPE has left
behind at the request of local medical personnel, a team to assist in
the furtherance of HOPE programs.
         In Saigon the first orthopedic rehabilitation clinic was
established with guidance of HOPE physicians. In Peru, 20 American
medical personnel are assisting hospital authorities at a new
hospital.

36. Council on Voluntary Health Agencies, <u>National Society for
     Crippled Children and Adults</u>. Directory of National Voluntary
     Health Organizations, American Medical Association, 1964.

     Its purpose is to extend and develop the rehabilitation
services which can alleviate the physical, psychological, social, and
vocational effects of crippling disease or injury; conduct educa-
tional programs for the public, the professional personnel, for
parents of crippled children and for employers; create greater under-
standing and greater acceptance of the crippled; and conduct
research into causes of crippling and prevention of crippling and
improved methods of care, treatment, and education of crippled
children and adults.
     Major emphasis in the society's program is on direct services
for the crippled. Research is a comparatively small part of the
total budget.
     The program of public education utilizes all forms of mass
media. Professional education includes scholarships and fellowships
to assist in the training of doctors, therapists, teachers, etc.
     Printed materials in the field of professional education
include the monthly journal, rehabilitation literature, and reprints
of a wide variety of informative articles. An annual convention
includes professional seminars and symposia. A national personnel
registry serves as a clearing house for personnel in the rehabilitation
field and for maintaining a current listing of positions throughout
the United States.
     Service is offered through the following types of facilities
and services: Treatment Centers, Rehabilitation Centers, Residential
Centers, Itinerant Services, Nursery School, or Preschool Centers,
Special Education Projects.

37. Council on Voluntary Health Agencies of the American Medical
     Association. <u>American Cancer Society</u>. Directory of National
     Voluntary Health Organizations, American Medical Association,
     1964, pp. 31-35.

     The purpose is the study and prevention of cancer and to
educate the public at large in the absolute necessity of treatment
at the earliest indication of cancerous growth. Research, education,
and service to cancer patients are part of the Society's commitments.
     The Society provides grants, predoctoral and postdoctoral
fellowships and scholarships, faculty research and lifetime research
fellowships for research on the causes of cancer, its diagnosis,
treatment and prevention.
     The Cancer Society accepts the challenge of bridging the gap
between the knowledge available about cancer and the practical
application of this knowledge. It seeks to reach all segments of
society, including secondary school and college students, clubs and
organization members, employees of businesses and industry,
neighborhood groups, etc. with two prime messages: (1) an annual

health check up by a qualified physician once a year for all adults,
and (2) a visit to a physician on the appearance of any one of
cancer's danger signals. Special significance is given to specific
sites of cancer such as uterus, lungs, breast, colon, and rectum.

The services of the Society are to encourage the means for
achieving earlier and improved diagnosis and treatment of cancer
through the use of effective detection services.

38.   Sale, June Solnit. "Family Day Care - Potential Child
      Development Service." Paper presented to the Early Child Care
      Committee of the Maternal and Child Health Section of the
      American Public Health Association, Minnesota, October, 1941,
      in AJPH, 1972, Vol. LXII, No. 5.

The purpose was to explore this form of child care service as
a potential child development service that should be supported,
rewarded, and heralded. It provided an opportunity for research and
observation for students and a community practicum experience with
access to relevant data in child development. The students were
exposed to a variety of experiences with children of different age
groups, ethnic and socio-economic backgrounds living in their own
neighborhood. The students met with the mothers and exchanged
experiences. They visited the mothers twice a week, kept logs and
impressions of their visits. The day care mothers were hired as
consultants, and they taught the students their methods. The mothers
attended a monthly meeting at the Center with the staff of the project.
Other services were offered to the mothers such as toy loans,
joining a cooperative nursery school and a referral service, and a
monthly bulletin on "How Children Learn and Grow."

39.   Betty Wells Bond. "Health Education for Organized Groups of
      Older Adults." Geriatrics, 1965, pp. 89-91.

In Minnesota in the area of services for the aged, there are
two types of educational programs. One has been developed for per-
sonnel concerned with the aged in nursing homes or in homes for the
aged. Short courses are used for administrators and staff to orient
them to the basic philosophy of working with the aged rather than
doing things for them. A second major educational activity of the
department concerned the aging person himself. They worked with
organized groups such as "senior citizens." There are many groups
organized to satisfy social, recreational, and educational needs.
The program is often unsuited to the needs of the group. The
Department of Health concerned with this is developing a series of
discussions, units on health topics for use with these groups.
Discussion units are planned in nutrition, health maintenance, safety,
mental health, and the role of the older person in the community.
In these units they wanted to reinforce or help the aged to
recognize the unity of his life pattern in terms of his own personal

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needs, his family relations, his group and community activities.
They also hoped to help the groups to identify resources within
their group rather than to depend upon resources from the state
level.

This discussion unit does not require individual service;
it is organized for the use of individual clubs. It includes a
discussion guide for the leader and a copy of background material
which can be used in any order suited for the group. They are
mailed on request. Each unit has a basic discussion plan for the
use of the group leader, including ideas upon which the meeting
can be planned and ideas for further study or follow-up activities.

40. Gerken, Edna A. "Development of a Health Education Programme."
    American Journal of Public Health, Vol. XXX, No. 8, August,
    1940, pp. 915-920. New York American Public Health Association.

The program was oriented to focus on three of the basic
problems of the community. These were the control of communicable
diseases, the control of infant mortality and morbidity, and first
aid and safety. Different sub-committees of participant teachers
and a health educator available in the area formulated detailed plans,
prepared the materials, and suggested the methods to be used in the
program.

Cultural background, religious ideas, and customs of the
population were considered in the elaboration and development of the
program. Positive results were obtained and the acceptance of
ideas and practices was observed.

CHAPTER V

SURVEY OF LITERACY PROGRAMS

By

Daphne Williams

Rationale and Research Purpose

Around 1950, UNESCO reported that roughly two out of every five adults--at least 700 million people of fifteen years and over in the world--were unable to read or write and that in 97 countries in Africa, Asia, Central and South America, more than half of the adult population was illiterate.

Another estimate made in 1960, a decade later, revealed a decrease in the percentage of illiteracy rate in these areas. This decrease had been negated, however, by population increase. In 1960, the estimate was placed at more than 735 million. By 1970, this figure had increased to 783 million. These figures indicate a slight but steady increase in the number of adult illiterates around the world. This has obvious implications for the socio-economic phenomenon that has been dubbed among other euphemisms, "under-development."

Effort and resources are being devoted by international agencies, governments, Christian missions, local agencies and organiza-tions to literacy skills of adults aroung the globe. Before 1964, most of the programs designed for this purpose and directed often by governments, local agencies, or organizations had as their focus traditional literacy skills. It was hoped that through the world of letters the people would become more aware of their environment. The mid-sixties witnessed a change in approach to literacy from "traditional"

to "functional literacy." In more recent years a new orientation has evolved, the "work-oriented" literacy. This latter approach is "intensive, rather than extensive, selective rather than diffusive, work-oriented rather than culturally oriented."

In the past five years or so, various donor systems such as the USAID, UN, and The World Bank have been searching for alternative ways of international assistance to the LDC's. It is observed that the conditions of living in the third-world have not improved as much as expected in the two decades of international assistance. It is, therefore, in order to review what has been done in the past and identify the strengths and weaknesses of the new programs and ideas which are being considered.

One such idea is non-formal education--NFE. For our purpose in this study we shall define NFE as:

> . . . any intentional and systematic enterprise, usually outside of traditional schooling, in which content, method of instruction, time units, admission criteria, staff, facilities and other system components are selected and/or adapted to serve particular students or situations, to maximize attainment of specific learning missions (Kleis, "Toward a Contextual Definition of Non-Formal Education").[1]

It is believed by a number of development scholars and practitioners that mass education is a potent and essential element to induce national development. Unfortunately, however, the attention has been concentrated on the formal in-school type of education which, by common knowledge, has failed to reach the majority of the people and in many cases, those who participated in formal education activities are disappointed with its promises and results. NFE advocates suggest that non-formal education "will make a more direct and less costly contribution to rural development."[2]

Why, then, do we study literacy programs in a program of study in NFE? We have somehow alluded to this issue by suggesting that we need to review and learn from the past. Wilder, who did some work on literacy at MSU, estimated that literacy programs represent probably the highest investment and the largest kind of NFE activity introduced in the LDC's. It is therefore imperative

that we study it and draw from it lessons for possible application
to other areas of NFE concerns such as vocational training, rural
agricultural development, manpower development, learning, etc.

Research Purpose

The purpose of this investigation is to identify significant
lessons from the worldwide experience in literacy programs in its
twenty years or so of existence, as a contribution to the construction
of a base of knowledge in NFE. More specifically the objectives of
the study are to: (a) collect and describe literacy programs from
all over the world, (b) draw a profile of these programs according to
some structural features of NFE and (c) identify lessons from these
programs, particularly those that have implications for planners and
implementors of NFE activities.

Collection of Material

Numerous sources were used in the collection of materials for
this chapter. Books, journals, magazines, project reports, and study
surveys were the principal sources. Replies to letters sent out to
various international NFE agencies also yielded some useful informa-
tion. Campus experts and authorities in NFE were consulted for sug-
gestions as to sources of materials on the subject.

Thus, most, if not all, of the materials were obtained from
secondary sources, which provides a limitation of this study. This
is a limitation because of the process of filtration and resulting
subjective perception. While there is easy access to reports and
studies conducted by international and government agencies, the same
cannot be said for the other local agencies and organizations such
as religious organizations, private groups and other smaller local
bodies. Hence in terms of the amount of cases studied, there is a
bias toward the governmental and internationally sponsored cases.

Definitions

For purposes of this investigation we have adopted certain definitions of key concepts. There are two broad conceptual areas that need to be defined namely literacy and NFE.

Literacy

Literacy here is defined in two different ways depending on the program:

Traditional Literacy Programs.--the person is considered literate when he has acquired the essential skills in reading, writing, and arithmetic at the level that he can continue to use these skills toward his own development.

Functional Literacy Programs.--a person is functionally literate "when he has acquired the knowledge and skills in reading and writing which enables him to engage effectively in all those activities in which literacy is normally assumed in his culture or group."[3]

More recently development of functional literacy has been expanded to include work-oriented programs in which a person's acquisition of literacy skills is related to the work situation. Two things are learned in the process--literacy skills and work-related information such as farming, homemaking, etc. The argument here is, that a person will be more motivated to learn literacy skills if he can see their utility to his immediate work setting and that once the person is skilled in literacy he can then acquire useful information that will make him more productive if such information is applied in his work.

Non-Formal Education

In general terms we define Non-Formal Education as:

. . . any intentional and systematic enterprise, usually outside of traditional schooling, in which content, method of instruction, time units, admission criteria, staff, facilities and other system components are selected and/or adapted to serve particular students or situations, to maximize attainment of specific learning missions.[4]

In terms of an idealized system we conceive of NFE as having three subsystems which are interdependent and interacting. They are:

1. Institutional Subsystem

   A. Mission: The legally and/or consensually established framework of intention which constitutes the <u>raison d'etre</u> of the system and within which particular purposes, goals, and objectives are evolved and pursued.

   B. Sponsor: The political, religious, industrial and/or other institution which initiates, supports, and governs the enterprise and under whose auspices operating units (often schools) are established and managed.

2. Participant Subsystem

   A. Mentors: The personnel, whether specially trained and certified or not, who teach, counsel, administer, prepare materials, and otherwise staff the enterprise.

   B. Students: The participants whose cognition, competence and/or volition are to be educed.

3. Curricular Subsystem

   A. Content: The body of knowledge (information, competence and/or preference patterns) which students are to learn.

   B. Media: The materials, equipment, plant, and processes by means of which direct or vicarious experiences are transmitted.

Chapter Overview

The bulk of the materials collected in this chapter are "traditional" literacy skills oriented. However, as pointed out earlier, functional literacy programs, though fewer in number, constitute the bulk of the projects that have been initiated in the recent years.

A total of 76 literacy projects, programs and cases were included in this study. The description of the samples is made based

on the different items referred to in the definition section of this
paper. Six more elements were added, namely publicity of the program,
meeting place for classes, rate of drop-out, follow-up courses, and
evaluation.

System of Classification

After the cases were classified using the scheme referred to
earlier, the analysis proceeded by drawing a collective profile of the
sample programs according to the various categories in the paradigm.
Thus we have a profile on sponsorship, location, participants, mentors,
mode of delivery, etc.

A. Sponsorship

Sponsor is defined here as "an industrial or institutional.
complex which initiates, supports and governs the enterprise and
within which operating institutions are established, legitimized and
managed." The sponsor generally determines the specific mission and
thus the method of accomplishing it.

Based on the cases, six sponsor-centered categories are
determined:

1. Internationally sponsored cases: these projects are
   undertaken by agencies of the United Nations (UNESCO,
   ILO, FAO) either independently or more often in
   conjunction with local governments. This is the case
   in Algeria, Mali, Nigeria.

2. Government sponsored cases: in this category the
   governments of particular countries delegate the duties
   to a specific ministry or ministries to sponsor and
   administer these projects directly.

3. Private organization-sponsored cases: these are non-
   governmental agencies or groups, often local, who take
   upon themselves the task of initiating and sponsoring
   literacy programs. Examples include the Girl Guides
   Association in West Pakistan and Ceylon and the All
   Pakistan Women's Association in West Pakistan.

4. Local mission sponsored cases: refers to autonomous
   churches and other local religious organizations
   which conduct literacy programs.

5. Foreign mission sponsored cases: churches and other religious organizations from outside the country that conduct programs.

6. University sponsored cases: universities within and outside a country that run programs.

Out of the 76 cases studied, 18 fall under international cases, 42 fall under government cases, 8 fall under private organization sponsored cases, while local missions, foreign missions and universities sponsored 2 and 4 respectively. The uneven loading of the cases in the categories creates certain limitations for their comparative analysis.

1. Internationally Sponsored Projects:

Most of the cases that belong in this category are a part of experimental projects of the Experimental World Literacy Program, promoted and developed with the advice and assistance of UNESCO and of other international organizations such as the UNDP, ILO and FAO. These projects differ in size, scope, duration, place, and amount of money, but they share a common purpose, i.e., to test the application of the concept of functional literacy so as to assess factors such as replicability in other settings and variables important to social and economic success. Of the 18 cases studied, 9 were in Africa and the other 9 are in Asia, Latin America, the Caribbean and the Arab world.

Africa: Algeria, Tanzania, Mali, Madagascar, Ethiopia, Guinea, Sudan, Zambia, Somalia

Asia: India

Latin America: Ecuador, Brazil

Caribbean: Port Pierre Louis

Arab States: Iran, Afghanistan

Some countries like Iran, Algeria, and a few others implement two or more sub-projects in different areas of the country with similar aims and objectives. It must be pointed out also that the initiative and desire to become a part of the program generally

comes from within the particular country. The international bodies
serve to support the efforts of governments which show concern for
the problem. The main responsibility lies with the country itself
with the international missions serving more in an advisory capacity.

Most of the projects are still in the experimental state and
are designed to relate directly to technical and vocational training
in selected development schemes, both in the urban and rural areas.
Literacy activities in these cases are being developed to contribute
more meaningfully to economic and social development; thus these
activities are linked with development areas such as industry,
agriculture, agrarian reform, social welfare, community development,
nutrition, sanitation, and transportation.

Some countries are also initiating small scale experiments
to evaluate new approaches to functional literacy or test new methods
and media.

2. Government Sponsored Cases:

The programs that fall under this category come under the
jurisdiction of the Ministry of Education in the various countries.
In a few instances autonomous bodies run and coordinate activities
in adult education. The Ministry of Social Welfare shoulders the
responsibility for adult education in a limited number of cases.
All of the programs included in the study are from developing
countries except those from the United States and Canada.

Programs in this category may be nationwide or may be
localized to spedific areas of the country. To increase participation
and involvement in these programs, all types of motivation are
employed--civic, political, social, religious, family, and personal.
Success of government sponsored programs cannot be maximized due to
financial constraints. Governments of many developing countries are
unable to allocate sufficient resources to fully support educational
projects such as wide-scale literacy programs, requiring large
amounts of money to hire more qualified teachers and providing audio-
visual aids and other instructional materials. Furthermore, since

most of these national programs are traditional literacy skills types the problem of relapse into illiteracy and lack of apparent benefits from such investments became a grave concern of the governments.

Duration of the course constitutes one source of variation of these programs. The duration varies for most programs between 45 days to three years and is broken into two stages--with a number of sessions within each stage. Classes are held on an average of three days per week, each class session lasts two hours.

3. Private-Organization Sponsored Cases

There are 8 cases in this category whose sponsore are varied. They include industries, villages, Girl Guide Association, Workers' Association, and the Adult Education Association. Most of the cases are found in Asia--India, Ceylon, Pakistan, and China. A project sponsored by the Corn Product Industry in Chicago, USA is an exception. These projects are usually restricted to certain areas within the various countries except the one in the People's Republic of China where each village in the country conducts and sponsors a literacy program as part of the cooperative or communal set up of almost all the villages. Literacy activities in this project are designed to involve adults as well as children and provide besides mere literacy skills, a certain degree of political, social and work education.

The mission of most of these programs focuses on basic literacy skills--reading, writing, and arithmetic including areas such as health, nutrition, and agricultural skills. Most of the programs were started in the 1950's, except three which were started in the late 1960's. All were terminated before the end of the decade. The duration of these programs is from six to twelve months. The participants usually belong to a particular class such as industrial workers, women, and housewives. China is again an exception for the participants include all the villagers.

4. Mission Sponsored Projects:

The local missions include the Coptic Evangelical in Egypt and the Ethiopian Evangelical Church. These missions use trained mentors as full-time instructors. Their activities center around the teaching and the application of literacy skills to agriculture, health, and nutrition.

The foreign missions teach literacy skills with a view to bringing the Christian message across. The cases falling under this category are found in Africa, Liberia, and Uganda.

5. Local Universities:

Most of the projects undertaken by universities are focused on continuing education. In the limited number of cases examined, the mission, teaching of basic literacy skills, is an end in itself. The Summer Institute of Linguistics, University of Missouri, Dar-es Salaam University, and Ibadan University are the few universities included in the study under this category.

B. Location

An enumeration of the countries in which the various projects are located will be redundant here since this information is well documented in the Appendix.

The geographical distribution of the cases examined is heavier in the developing countries than in the developed one. This is not unexpected because illiteracy is a major problem in these areas of the world. On the whole, there are many more projects intended for the rural population of the various non-Western countries, and the trend shows a significant increase in the number of projects in this direction. This bias towards the rural areas may be explained in terms of the shift of emphasis in adult literacy from "traditional" to "functional" and work-oriented literacy.

In the United States and Canada where Adult Basic Education
(ABE) programs are run on a state wide level, the urban, metropolitan
areas become the areas of focus. The ABE program in Lansing,'
Michigan, rallies around semi-literates and illiterates in the Tri-
County metropolitan area. The urban areas tend to accommodate
more foreign migrants from Mexico and other Latin American countries
and blacks who cannot read or write.

C. Participants

There is no clear cut way in which one can make generaliza-
tions about the participants. They have been described in different
situations as "adults," illiterates, farmers, industrial workers,
villagers, or racial minotiries. Such descriptions are at best
vague, therefore an attempt will be made here to define these
various categories before relating them to the other categories.

Illiterates: Those who can neither read nor write.
Generally, an inability to read or write one's vernacular constitutes
illiteracy, however in a limited number of cases English or French
is the criterion.

Adults: Illiterates aged 15 years and above who have
assumed responsibility for themselves and are becoming functionally
productive.

Farmers: Individuals who employ subsistence techniques in
the production of crops. They constitute a socio-economic class
with the usual characteristics which define such a group.

Industrial Workers: Unskilled or semi-skilled workers in
industry who usually are equipped with none or limited literacy
skills.

Villagers: Those in the rural areas with a susbistence type
of economy; in this respect they may be regarded as synonymous with
the farmer. On the other hand, they are a heterogeneous group in
the sense that some are illiterate but possess certain skills.

Racial Minorities: This pertains specifically to those
members of certain racial or disadvantaged groups in the metro-
politan areas of the United States (Mexicans, Blacks, Pureto Ricans,
etc.) who are unable to speak or write English properly.

In addition to being thusly categorized, the participants are
confined also to certain areas within the various countries where the
projects are located. Participation may be rest.icted to certain
ethnic groups. The U.S. mission project in Liberia is an example.
It is designed to serve the Loma people.

Local government sponsored projects cover the whole range
of participants mentioned. However, in a few cases they have been
designed for a particular class of people such as women or prisoners.
Nearly all the internationally sponsored projects are geared towards
the illiterate farmers and industrial workers. The local private
organizations cater to, among the other categories, housewives and
women.

Participation may be restricted to certain age groups. The
Alabama TV program restricts participation to adults over 40 years.
The Adult Literacy program in the Khmer Republic is for citizens
between the ages of 10 and 50.

Participants in Project Enable under the sponsorship of the
Michigan Department of Education are different from all the others.
They include graduate students, University faculty members, con-
sultants from Michigan Department of Education, and local school
workers although the ultimate program recipients are the illiterate
adults all over the state.

D. Mission and Substantive Content

Both the mission and the substantive content of the projects
have changed with time. Initially, the emphasis was on literacy
skills as an end in themselves. What one sees now is a shift towards
functional literacy skills. Such a shift has mainly occurred in the
developing countries. In the developed world, specifically in the

United States, the Adult Basic Education programs that are locally directed are geared to imparting not only literacy skills but achieving an educational grade level such as 4th or 5th grade. A minor focus is the enrichment of the individual.

Governments have concentrated mostly on traditional literacy with some emphasis on civic and health education. The realization of the role of literacy in the process of social and economic change is apparent in most of the projects undertaken by local governments, but the extent of the incorporation of such objectives in their programs has been only implicit.

Basic literacy skills, social awareness, health, and nutrition have been the focus of the projects undertaken by the private organizations. The university-sponsored cases try to impart basic literacy skills while the local missions have operated within limits in the realm of functional literacy to the extent that literacy has been used as a means of teaching religion. However, they do not neglect health, nutrition, and other related areas.

UNESCO and other related agencies of the United Nations have centered their activities on functional and work-oriented literacy. More attention is directed to developing the rural sector of the country in the areas of agriculture and rural industry. From the cases, it can be determined that some of the development aims of these programs are:

1. Improvement in agricultural techniques;

2. Development of skills and techniques for rural industry;

3. Promotion of community development in towns and country areas.

E. Mentors

The background and experience of the mentors range from those with basic literacy skills to specialists in literacy. Instructors or teachers are employed on different bases. Some are paid while others are not. Some are regularly employed to teach full- or part-time or they may be volunteers. Mentors could be any of the following groups:

- Adult teachers

- Neo-literate and literate citizens

- School children and students

- Industrial personnel

- Members of government agencies or non-governmental
  organizations--directors, specialists, supervisors

- Missionaries and other religious leaders and individuals

- Patients

- Housewives

- Farmers

- Retirees.

Local government mentors are mostly obtained from primary
school teachers and volunteers. This finding is generally true in
the countries. The U.S. programs rely on more specialized mentors
who are usually university trained and employed directly by the
federal government.

An interesting set of mentors are the patients at St. Pete's
TB Hospital in Addis Ababa in the Yemissrach Dints Literacy campaign.
The classes are taught voluntarily by patients who are well enough
to stay out of bed. These mentors teach basic literary skills and
are able to motivate other patients to new interests in life.

Non-adult educators often receive special in-service training
and refresher courses of at least two days to four weeks duration.
The members in the SESI program of Brazil and the Adult Literacy
Program of Canada are oriented to and provided with courses in adult
psychology and are encouraged to use simple standardized methods.

In addition to books and training courses, audio-visual aids
are being used to make the actual teaching situations and methods more
vivid and realistic.

The internationally sponsored projects, a part of the Experi-
mental World Literacy Program, are often headed by specialists
provided by the agencies. They range in number from one to eight
per project. The function of the experts from UNESCO, ILO, and FAO

as mentors is usually to direct the program and work in collaboration with the local people who eventually take over from them.

Teachers who do not receive a salary for their teaching services are remunerated somehow to encourage better participation in the programs. Such remuneration comes in various ways. India (Bikcaner), Spain, Mexico, Ethiopia, (Pakistan), Bangladesh offers awards in the form of certificates. Burma awards badges in addition to certificates. Cambodia takes a different approach; gratitude is expressed through appreciation letters and mails. In the case of Brazil, teachers receive a promotion in the organizational structure while in Tanzania and Zambia, teachers are given small honoraria in accordance with their competencies in the classroom.

F. Mode of Delivery

The eclectic, Laubach, and analytic (global) methods are all used. Instructional materials include reading materials in the form of posters, charts, books and primers, and audio-visual aids.

Most programs use a combination of methods and materials. The work-oriented projects are an exception, since field demonstrations constitute its major method. Government sponsored projects have in the past relied heavily on reading materials, mostly primers. Films, slides, radio, and TV as instructional media are now used; however, perhaps due to the costs involved, the extent of their use is limited.

Most of the mission sponsored programs rely heavily on primers except the U.S. Mission in Liberia which uses the radio extensively as a mode of delivery.

The international projects which were initiated in the past decade utilize audio-visual materials extensively. To a certain extent primers are used. Where skills in agriculture or rural industries are to be imparted, demonstration is the common approach.

The language used is usually the vernacular of the participants. In a limited number of cases the official language of the country, usually that of the former colonizer, is employed. French and English are two such examples. The use of the metropolitan language

has been restricted to projects in the urban areas where relatively more people understand them.

G. Other Aspects

This section provides additional information beyond the elements in the paradigm mentioned earlier (see Appendix). The items included here are:

1. Publicity of program;
2. Expenditure;
3. Follow-up course;
4. Drop-out rate; and
5. Place of meeting.

1. Publicity of Program:

Publicity strategies and techniques exist in various forms, and organizers of literacy programs have used them to ensure successful programs.

There is a heavy reliance on local mass media in the dissemination of information about the projects. Radio is the most extensively used, followed by television, film, and slides in that order.

Home visits, newspapers, posters, and advertisements are also used to motivate individuals to participate; the latter three items are common publicity media in the Western countries or urban sectors of developing countries.

Publicity goes beyond a simple presentation of information. It also involves impressing the public with the immediate advantages of the projects. To this end, particularly in situations in developing countries, meetings are arranged where respectable citizens chiefs, factory personnel, or politicians speak about the benefits of literacy not only to the individual but to the society as a whole.

2. Expenditure for Projects:

It was pointed out that some projects are jointly sponsored by local governments and international agencies. Where such an arrangement exists the U.N. usually pays one half to a quarter of the bill. Other projects are sponsored exclusively by governments or private organizations. Below are a few examples of total expenditure and per capita expenditure on literacy programs.

Title of Case Location	Total Expenditures (US $)	Per Capita Expenditures (US $)
Adult Education - Jordan	$ 60,000.00	$30.00
Literacy Project - Syria	$ 26,000.00	$11.00
Literacy Project - Somalia	$107,147.00	$33.83
Adult Literacy - Jamaica	$ 62,500.00	$12.00
Project Impact - Brazil	$3,201,312.00	$90.46
Literacy Project - Italy	$ 2,888.0C	$18.00
New Guinea	$ 2,350.000	$ 2.70

3. Follow-up Courses

For those programs which emphasize basic literacy skills, it is often advised to provide follow-up courses as a way of keeping the neo-literate actively involved in the learning process and prevent him from relapsing into illiteracy. Literacy as an objective becomes meaningless when the individual cannot utilize his skills, thus easy-to-read booklets relating to his desires and interests are necessary. Different countries have utilized various approaches to keep the neo-literates reading. Some of these are shown below:

Country	Follow-up Courses
India: Hyderasad	No formal course, but easy-to-read books are available.
Zambia	Formal follow-up course exists and in addition to this, students can join in evening schools for further education.
Burma	Reading Clubs
India: Bilcanee	A mobile library takes easy-to-read materials for neo-literates
Vietnam	Vocational training courses are organized.
Philippines	Newsletters are sent regularly to those who finish.
India: Mysore State	Three months follow-up course.
Gabon	Follow-up course is applied in the following form: radio and TV broadcasts, a monthly newspaper called "Bonjour" and educational brochures of socioeconomic content.
Spain	Vocational training in lieu of follow-up courses.
Canada	No formal follow-up courses but adults can attend a pre-secondary course to acquire the training necessary to pursue secondary school studies.
Italy	Two follow-up courses.
Nigeria	Post-literacy classes offering English.
Cambodia	Broadcasts and speeches.

In work-oriented programs, the question of follow-up materials is not recognized since the philosophy of this approach is to relate immediately the skills acquired to one's profession and vocation.

4. Drop-out Rate:

The rate of drop-outs ranges from 12% to 59%. It varies from the urban to the rural sector and between the sexes. The most frequent reasons given for drop-outs include poverty, traditional customs, migration, household responsibilities, poor teachers, or a general lack of interest. The chart on the following page shows a number of selected cases with drop-out rates and the reasons. A significant finding about drop-out is that the drop-out rate among women is higher than men in the urban areas.

5. Place of Meeting

A few countries like Ethiopia, Tunisia, and Egypt provide literacy centers which are located in focal areas of the country. Public facilities of which school buildings are the most common are the most widely used. Other meeting places include:

- factory buildings
- church buildings
- community halls
- mosques.

In the warmer climates, outdoor classes are often held. For projects focusing directly on agriculture or rural industry, classes and demonstrations are held in the field or in the industrial centers.

6. Evaluation

A limited number of our sources included evaluations. Where such evaluations have been included the criteria vary with sponsorship. In the internationally sponsored projects, the degree of participation and the level of involvement are the criteria for successful programs. A target population is specified and the gradual or rapid expansion of the projects to include the intended population is a good indication of a successful program. The functional literacy program in Mali on improving agricultural techniques can be considered successful or "complete" only when 100,000 to 110,000 "producers" have finished the complete course. The Madagascar Functional Literacy

Location	Title of Case	Urban M	F	Rural M	F	Reason
India, Gujarat	Literacy Program	23	40	41	40	Poverty
Jordan, Amman	Adult Education	30	40	25	15	Lack of motivation, shyness, migration
Syria	Literacy Project	15	10	20	40	Customs, teacher's low calibre, lack of interest and motivation
Somalia	Literacy Project	34.5	17.2			Shortage of qualified personnel and material, lack of good organization
Spain	Natural Campaign for Literacy and Cultural Promotion of Adults	41	59			Occupation and Household responsibilities
Brazil	Project "Impact"	12.3	11.8			Change of job or residence but usually students return to class when settled
Zambia	Adult Literacy Program	28.8				Illness, inadequate field super-vision, mobility, occupational problems, reading materials not relevant to the participants' level.
Canada	Basic Education	50				Discouragement, sickness and change of dwelling.
United States	Adult Basic Education	45				Change of place or loss of enthusiasm
Madagascar	Functional Literacy					

Project will be considered successful only when 51,000 adults are made literate through the project. These goals are set during the period of experimentation of the pilot project. Consideration is also given to the number of instructors trained since the start of the program.

In Brazil, the government sponsored Project "Impact" uses the number of graduates from the program as an indication of a program that is worthy of being replicated. The program was transferred and applied in another section of Brazil in the state of Meto Grasso among laborers involved in the construction of the Transamazonic highway. In the Sesi program in Brazil another indication of success was the promotion of graduates in their field of industry.

In the functional literacy program for tobacco-growers in Nigeria, the results of the program that ended in 1971 led one to conclude that functional literacy was important not only in teaching adults the basic skills of reading and writing but also in maintaining and improving positive attitudes of farmers towards their economic activities, towards literacy in general and towards their personal and social development.

The National Committee for the World Literacy Program in Iran includes other factors in the evaluation of the program. Besides considering the effects of literacy on the social and family life and occupation of neo-literates, the rate of drop-out in literacy classes and an evaluation system of selecting the best teachers and supervisors are effective measures. Methods of educational extension in under-populated rural areas and reading materials for neo-literates also play a part in the evaluation procedures.

Information on evaluation of functional literacy projects is not readily available because the programs are only now getting to an advanced operational stage at which point evaluation surveys can be conducted.

However, it is evident that the degree to which the intended objectives set out by the program are achieved is the major basis for evaluation of the program.

Conclusions

The role of education in any kind of social change cannot be disputed. In this respect, the potential contribution of adult literacy to socio-economic change in the developing world in particular, has been recognized. In this study there is no attempt to draw a direct link between literacy and the level of economic development. There is, however, a recognition of the universality of education for all men and of the importance of the rate of literacy in pursuing this educational need.

The provision of functional literacy skills for the masses is a recent phenomenon. Hence its impact is yet to be felt in a significant way. This does not negate the advances made thus far in providing the masses of illiterates throughout the world with some literacy skills. It merely indicates the challenge and scope for innovation and experimentation in the field. From the cases studied, it is apparent that different methods are being tried in different situations with varying results.

Six conclusions are drawn from this survey of 76 literacy programs from all over the world:

1. The motivation of the individual in all of these programs was necessary for success. The adult participants came to the learning situation with different motives. Some of these are personal, some are to upgrade their social and economic status. The illiterate learns to read for: (1) economic reward; (2) social status; (3) to cope with changes in a dynamic world; (4) for patriotic participation in public affairs; (5) to read sacred scriptures; (6) the intrinsic desire to be able to read and write; and (7) education for self and children.

These factors are vital in organizing literacy classes. Where the objectives of programs related to the concerns and needs of adults, success is more assured.

2. Programs in adult literacy in the past have had only moderate success when viewed in the context of the number of people who have benefitted from it. Such benefits on the whole have

not been very relevant in their contribution to the improvement of
the individual in particular and society as a whole. This stems in
part from the notion, in predominately illiterate societies, that
the ability to use letters and words is an end in itself. Thus
traditional literacy programs have reinforced the elitist's attitude
which in most cases proves irrelevant toward improvement of the
social and economic condition of the masses.

3. Urbanization in nearly all developing countries has been
supported, in part, by the education (literacy skills) of the people.

4. Any improvement in the lives of those in the rural areas
whose livelihood is dependent on subsistence agriculture has to be
centered around their mode of living. To this group literacy skills,
unless they come as part of a package which includes livelihood
related elements, will be sterile and meaningless. This explains the
relatively high rates of drop-outs in such areas. As expected the
reason given was lack of interest.

5. The shift to functional literacy skills is still in the
experimental stage. But from all indications the response has been
generally good. The participants are aware of the usefulness of what
they learn. However, the success of such programs could be greatly
enhanced if due consideration is given to the particular environments
for which such programs are defined. Traditions, seasonal migrations
and household duties are some of the factors that prevented some
individuals from participating in these programs. The same factors
explained the heavy drop-out rate. If these programs are to serve the
needs of the participants, then due consideration should be given to
the reasons that hinder participation.

6. Work oriented programs have elicited the highest levels of
participation, perhaps because they take into consideration the
immediate needs of the participants.

NOTES

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CHAPTER VI

THE NON-FORMAL EDUCATION FUNCTIONAL
COMPONENT IN FAMILY PLANNING
PROGRAMS

By

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Introduction

This chapter consists of three separate parts that vary in
their geographical scope, intent, and research procedure. The first
part traces the growth and development of family planning acceptance
in the more developed and the lesser developed countries. It points
out reasons for the variation in the degree of acceptance of family
planning measures in these areas of the world. The intent of the
investigation was to describe the communication campaigns or techniques
used in promoting the acceptance of various means of contraception.
The research procedure was principally a survey of reports coming
from the field, as well as from central headquarters like the UN
and proceedings of family planning conferences.

The second part is confined in geographical scope to Africa.
Its focus was to describe the traditional, indigenous means of trans-
mitting values systems and practices related to fertility and child
bearing. The research procedure used was a literature survey.

The third part is a case study of a local county family
planning program in the state of Michigan, USA. Its purpose was
exploratory, to pretest a research procedure which includes the

identification and description of some NFE structural elements and processes within the project. The research procedure used was a field study wherein the investigator conducted numerous interviews with program personnel and program recipients; observed an activity; listened to a briefing about the program; observed operations in the clinic; and examined publications and reports.

Conclusions

Two kinds of conclusions were drawn from these three works: those that are common to at least two of them and those that are unique to themselves. The following statements are intended to be prescriptive in their tones rather than descriptive or explanatory because we want this knowledge to be used as a guide to action rather than merely "knowledge for knowledge sake."

1. There should be an appreciation in the salience of cultural value system traditional institutions, local networks of communication, and in their compelling influence on response behavior of members of a social system. Agents of change must therefore be creative in making a fit between existing social structure and processes and the new ideas, materials, procedures, and skills to be introduced.

2. The use of local individuals as change agents' aids, or para-professionals, provides promise in increasing the effectiveness of programs at the local level. It is suggested that these local individuals when assigned to a defined role with defined boundaries can be effective agents locally because of their expert knowledge of the local communication code system, their sensitivity to traditional taboos and norms, and because of the previous social links they have in the community.

3. A precursor system is imperative to designing and launching programs in order to obtain a significantly greater depth of understanding to demonstrate the local feasibility of such a program. Voluntary associations have been used as precursors, performing the

above functions successfully which led to the formal adoption of family
planning policies by local and national governments.

4. There are certain topics or issues, particularly those
with the high local salience mentioned above, that can best be
handled in a group situation. It is posited that group settings can
be more effective in attitude changes because of the power of con-
census, of social verification, of mental rehearsal, greater quantity
of information given and exchanged, and social support. It is also a
good way for the local leadership structure to exercise itself in the
community.

5. Communication process is a vital element for increasing
knowledge, changing attitudes, and facilitating behavior changes of
those to whom the programs were directed. It is proposed that certain
communication channels are more appropriate for certain goals;
discussion in groups, for example, is more effective for changing
attitude, and radio is more effective for creating general awareness or
for transmitting information for immediate and wide reception. It is
further posited that the more channels used and the more integrated
they are in a particular communication campaign, the more effective
the campaign is.

6. Promotional or informational campaigns are basically
communication processes. For maximum impact it is suggested that
five critical communication sub-systems be considered not as independent
entities but as interacting and interdependent. These sub-systems are:
(1) the goals, (b) the receiver, (c) the channels, (d) the message,
and (e) the source.

7. Effectiveness of programs is partly determined by sound
organization, management or administration as this affects personnel
performance, program delivery, and interest of the intended participants.
It is not uncommon for participants to get disgusted over programs
because of unfulfilled promises, like teaching supplies that don't
arrive on time; or the lack of much needed operational funds; or
vehicles that don't run anymore because of poor maintenance; or poor
coordination between the headquarters and field operations.

8. New functions can be added to existing organizational structures whose technology, skills, and operations are related to the new function provided new resources are also added and provided further that the existing organizational structure is functioning effectively and efficiently. Education can be a built-in functional component of a predominantly service oriented agency. Thus education and service need not be independent and/or conflicting, but integrated.

9. A change in socio-economic structure of the system will bring about adaptive behavior on the part of the members of that social system. For instance the change in the economic structure of countries that allowed for women to be gainfully employed was a strong determining factor for couples going into family planning.

10. In a condition of uncertainty, ambiguity, or tension, overt behavior will likely move towards the direction that is reinforced or strengthened by messages coming from a more trusted source.

11. Within a social system there are differences in the degree of acceptance of innovation--some are early, some are late, and a majority are spectators, adopting only when the innovation can be clearly perceived as meritorious.

12. Employer's organizations can be positive supporters of a campaign. In the case of family planning, organizations have sanctioned or legitimized campaigns, created or made facilities available to facilitate the promotion of an idea.

13. A federal or higher level system that controls funds can be an effective instrument for introducing to or stimulating reforms such as sound management practices of grant-giving agencies by setting-up standards, guidelines, and pre-conditions.

Family Planning Programs and Their
Implications for NFE

Introduction

World population is growing at a rate of 2% per year. This means an addition of 76 million people a year to the present world population of more than 3,600 million. There are striking regional differences in the population growth trends. The fastest growing region in the world is Latin America with an annual rate of 2.9%, which includes South and Central America and the Caribbean. Africa and Asia follow Latin America with rates of 2.6% and 2.3%, respectively. However, the largest absolute addition to the world population is Asia, which at present contains about three-fifths of the people in the world. Europe and North America are the slowest growing regions with constant rates of about 1% during the last two decades.

Developments in Western Countries

Concern about population problems and family planning first started in Europe and North America, while awareness of the problem is relatively recent in Asia, Latin America, and Africa. Although birth control has been employed since the beginning of time, it did not attain great popularity in Europe until the last hundred years. In the latter part of the 19th century Europe and North America experienced a period of rapid progress in medicine and communal hygiene (water supply, waste-disposal), of gradual improvement in working conditions, and partial abolition of child labour. As a result, death-rates in general, and the mortality of infants and newborns in particular, fell abruptly.

In this new situation the number of couples using birth control increased so rapidly that the resulting fall in the birthrate soon equaled the reduction in the infant mortality rate. Through the use of birth control, the family unit sought to protect itself against the burden of bringing up an excessive number of children.

The rapid decrease of birth and death-rates continued until the 1930s. At that point, the mortality curve stabilized with the

overall birth-rate also remaining at a more or less stable level. In many countries, however, the birth-rate continued a slow downward trend.

This state of affairs was fairly general with certain departures from the main pattern detected in individual countries and certain social groups. While the differences between individual countries were relatively slight and apparently mainly in the rate of the process, the differences within a specific country were much greater, and were determined mainly by economic and political factors.

This reduction in the birth-rate occurred against the will of the ruling classes and clergy, without any type of educational campaign, and without any generally available material means, at least in the first half of this 100 year period. It was the determination of the family units not to bring up more children than possible, without adverse effect on the welfare of the unit, which was the decisive factor.

In the majority of European countries, there is no threat of population "explosion," but in some the death rate is falling while the birth rate remains high; therefore, the population growth index remains relatively high, too. This latter group of countries includes Poland where, because of the lack of necessary propaganda, the desire to limit the number of children was expressed by a rise in the abortion rate. The legalization of abortion in Poland was thus aimed against abortion as a means of family planning.

It has also been found in Yugoslavia that family planning propaganda aimed against primitive means, like abortion, is only effective at a certain level of economic and cultural development. The propaganda is either hindered or furthered according to the sector of the society to which it is directed. Many data support the conclusion that certain changed economic conditions, such as increased employment of women, lead to the adoption of birth regulators. In pre-war Yugoslavia, for example, women did not have the same rights as men, and abortion was strictly prohibited. Then, in the mainly Catholic western part of the country where industry

developed very early giving work to women and young people, the
number of children per family began to rapidly decrease. During the
same period in the regions with prevailing Orthodox and Moslem
populations which were not being industrialized, birth rates
remained particularly high. The same phenomenon may also be seen
in many other countries, and we can generalize that a married
couple's using or not using birth control devices is a function of
the economic structure.

The European experience suggests that requests for family
planning relates to certain economic and social developmental con-
ditions. It indicates that spontaneous family planning requires a
prior understanding by the family of its own interest. It also
suggests that industrialization, which destroys the old way of life
and old prejudices, produces a high concentration of people in
industrial areas, generates new living conditions and leads to new
positions for women and the family in society which produce the need
for family planning. It also suggests that means of production have
a fundamental influence on the size of the family. As long as we
have to deal with simple natural agricultural production, a large
family is wanted because manual labor is needed.

Experience in Lesser Developed Countries

Demographic trends in the developing countries have differed
substantially from the experience in Western countries. The decline
in the rate of mortality can be attributed to progress in medicine
and public health after World War II. Fertility has remained high in
all the developing countries of the world. In many countries of
Asia, Africa, and South America the high fertility rate has resulted
in a sudden and rapid increase in the rates of population growth, an
increase that has doubled, and in some cases, trebled the growth rates
that prevailed before the War.

The first step in organized family planning activities in
almost all countries has been the formation of a voluntary association.
Government interest and adoption of population policies have usually

come later. In many countries, governments have been concerned with
the importance of family planning primarily for reasons of maternal
and child health, and only secondly because of the impact of popula-
tion growth on economic development.

Many governments were unaware of the crucial nature of
population problems at the time of the establishment of national plan-
ning policies. Demographic transition was taking place but its
impact was not clearly evident because of a lack of demographic
statistics and knowledge. As a consequence, some development
programs underestimated the population factor.

Introducing family planning into national development plans
is a recent and innovative feature of government planning. There are
two underlying purposes. The first is to change spontaneous and
uncontrolled growth into rational and planned growth to benefit
economic and social processes. The second purpose is to interrelate
population trends with other trends on the basis that modernization
of fertility patterns should be supported by other modernization
processes, and vice versa.

Education for Family Planning

Birth control is one of those topics which arouses intense
public interest in many parts of the world, and there are active
family planning programs functioning in many countries. As is true
of any other aspect of development, family planning is critically
dependent on communications. Contraception is a technique, and a
technique has to be learned before it can be used. Family size is a
value, and values are weakened or strengthened by knowledge about the
ideas and opinions of others, especially those of peers. For many
couples, contraception requires a change in behavior, and such changes
tend to grow out of new information, new attitudes, new opportunities,
and new awareness of what others are thinking and doing. For family
planning programs to succeed, they must change values and behaviors
which are deeply rooted in biological nature and strongly supported by
social sanctions. To achieve their purposes, family planning programs
must communicate both widely and well.

As has been mentioned earlier, programs aimed at controlling births (occurring in a country) are a relatively new concept. Until India launched its program around 1951, adoption of family planning practices was left largely to the initiative of the individual. Western experience has shown that family planning practices can spread widely in the community as a natural process, without policy intervention or systematic stimulation from the state. It took, however, nearly fifty years under very favourable conditions of economic and social progress for birth rates to be halved in these countries. In many of the developing countries, at current rates of growth, the population will triple or quadruple during this time. Many of these countries, therefore, are eager for family planning to become widespread in a shorter time in order to have impact on economic and social development.

The trial-and-error method which was followed in the development of many family planning programs is well illustrated by India's experience, the longest on record. The provision of family planning services in India through national programs tended to be cautious in the early stages and had a positive clinical orientation which was a natural outcome of existing medical thought and practice. Clinics were opened as adjuncts to medical services. Soon it became evident that the clinic approach did not meet the requirements of the population. The number of women coming to the clinic was small and did not represent a general cross-section of the population. The rapport established between the clinical personnel and the clientele was weak, as was shown by the large proportion of women who failed to return to the clinic for a second visit. There was a further complicating element in that the clinics were recommending methods which had proved acceptable and effective in western clinics but whose values for women in eastern countries had not been established.

Experience in clinical operations and planned field trials brought to light several cultural factors which had to be reckoned with if family planning methods were to be widely accepted. An important factor was the lack of communication between husband and wife in matters relating to family size. This was more pronounced

in rural areas than in urban areas. Even in the urban areas, the
male had the dominate voice in deciding whether or not the couple
should adopt contraceptive practices. Recognition of such deep-
seated cultural factors leads to a discovery of ways and means by
which family planning programs could be modified.

The surveys established, beyond doubt, that large potential
demand exists for family planning services. In India, three or
four children were the maximum desired by many couples. This was
also found in Turkey, Pakistan and Taiwan. These opinions were
affected by the social, economic and cultural milieu in which the
people were living. It was also revealed that local tradition
dictated the need for at least one son in the family and that
children were considered as insurance against old age in societies
and communities where no other forms of social security existed.

A new orientation was given to the family planning programs in
many countries like India, Pakistan, Taiwan, and Korea, where the
focus is "mass education." The strategy in mass education is to flash,
continuously and repeatedly, a few meaningful, positive, under-
standable messages to the public through all modern mass communica-
tion media, and more importantly, through the traditional cultural
media to which people are accustomed and in which they customarily
participate. Community motivation for participation forms the very
core of the program.

It is very idfficult to evaluate these family planning
programs. In some cases, data are not available for all criteria
(first time acceptors, continuation rates, etc.), and sometimes the
statistical measurements are estimates based on partial data. In
some countries such as Korea, Tunisia, Thailand, United Arab
Republic and Ceylon, the rising entry age into marriages has exerted
downward pressure on the crude birth rates. In recent years, entry
age into marriage has had a slight downward influence on the crude
birth rates in Tunisia and Korea.

The results obtained in the programs vary widely. From the point of view of new acceptors, in Korea, Singapore, and Taiwan approximately 10, 9 and 8% respectively, of the married women of reproductive age became acceptors in 1970, where as Morocco and Indonesia (with less than 1% new acceptions) are listed in the last column of the National Family Planning programs.

Non-Formal Educational Component
of Family Planning Programs

Throughout this study it was found that each program was different in the way it was approached, the resources used, and the clientele served. For purposes of this study, however, particular attention is given to five main components.

a. Sponsors

b. Mission

c. Contents of the message

d. Clientele the message reached

e. Agencies and media through which the message is conveyed.

Sponsors.--Based on available information as of mid-1971, 26 nations have official family planning policies or programs, and 22 others have some program support but do not have specific policies. The third category, is made up of 57 countries where there is no official support of policy. The three most populous countries in the developing world with no official population policy or program are Brazil, Mexico and Burma.

Voluntary family planning organizations have played important roles in making governments aware of the implications of rapid population growth. In certain cases, foreign advisors who brought the implications of population growth to the attention of the competent authorities were an important element. Government-sponsored family planning programs first began in India in 1952, but it was not until the early 1960s that other governments made family planning a national policy. The movement has since spread to cover most countries in

Asia and Latin America. As more governments begin to provide clinical facilities and to include family planning in health programs, associations are taking the lead in carrying out educational activities and stimulating research in population education courses in schools.

Mission.--The population programs in different countries have goals or targets that call for specific declines in the crude birth rate, or the population growth rate, or set a specified number of family planning program acceptors or contraceptive users as targets.

Family planning programs serve a number of purposes. Among them are those of informing, instructing, motivating, and reassuring large numbers and varieties of people, and of legitimizing the practice of family planning.

Within these highly general orientations, a number of somewhat more specific goals that family planning programs are concerned with can be distinguished. An illustrative, but by no means exhaustive, list of some of these include:

a. developing understanding of the relationships between and among such phenomena as fertility, population growth, national development, and individual and family health and welfare;

b. developing and strengthening opinions and favorable attitudes about family planning and the small family norm;

c. providing general and technical information to appropriate audiences;

d. providing motivation, stimulation, and occasions for discussions leading toward community concensus and and decision;

e. influencing norms and values;

f. aiding in the acquisition of new skills and habits;

g. building a level of knowledge in which rumor and misinformation cannot flourish; and

h. helping to make legitimate the practice of family planning.

Content.--The messages of family planning education are as
varied as are the objectives of the program and the audience to be
reached. The objectives of family planning programs reflect at
least three major aspects, namely:

a. promoting family well-being and the health of
mothers and children;

b. regulating the rate of population growth;

c. promoting healthier attitudes towards love, sex and
marriage.

While the introduction of family planning services brings
all of these aspects into play, there is a tendency to place greater
emphasis on one or another, according to the needs of the country in
question. Thus, for example, the first two objectives are of
paramount importance in the underdeveloped regions in Asia, Latin
America and Africa where population growth is very rapid as compared
to the rate of economic development. An analysis of the messages in
these programs shows that the core of the message is to have a small
family size; the nature of the appeal is positive; and the benefits
indicated are better health and economic advancement. Each of these
is real, concrete, and easy to perceive. On the other hand, some
European countries (for example, Scandinavian countries) have already
achieved low birth and death rates. Therefore, a good deal of
emphasis of their programs is now placed on sex education and marriage
guidance for young people. In the Philippines and Latin America,
where religious affiliation must be taken into account, the chief
thrust lies in promoting family welfare in different ways, touching
incidentally on the planning of family size.

Clientele.--The receivers of NFE in FP include many more
than the users or the potential users of the program's services;
among these are:

a. Decision leaders of all types: These include national,
provincial, and local political figures, religious
leaders, industrial and other secular leaders, and
other influential members of the community. In Japan,
for example, rural programs in FP have been promoted
by communicating with key people in the administrative
structure, who then become disseminators and instructors.

b. <u>General public</u>: This group consists of rural dwellers
    and urban low-income groups often residing in slums.
    Reports from Japan, Hong Kong, Thailand, Malaysia,
    Singapore, Ceylon, India, and the USA show concern for
    the rural sector which comprises a large majority of
    the population.

c. <u>Special groups</u>: Including the military, industrial or
    labor organizations, the recently married, etc.
    Illustrative cases include the Japanes' National
    Railway and American Migrant workers.

d. <u>Relevant professions</u>: These include medical practitioners,
    mid-wives, and other paramedical professions who are
    especially concerned. An illustration is the Indonesian
    Dukems.

e. <u>Staff personnel of FP and personnel of other agencies.</u>

f. <u>Educational institutions.</u>

<u>Observations.</u>--

1. <u>A Majority of the population is interested in family</u>
<u>limitation</u>. A smaller family norm seems to be already established
in many Turkish minds. They wish that the government would
organize a program to inform them about family planning.

Survey results suggest (35-40% of 2,850 contacted) a high
level of receptivity to family planning in rural areas of Pakistan.

2. <u>There is much evidence that very large numbers of</u>
<u>couples in developing countries are ambivalent about family planning</u>.
Couples are under cross-pressure between traditional values and the
newer values, and the partially changed situation that they are in.
The resulting ambiguity and internal conflict probably account in
large part for the inconsistencies in survey responses.

3. <u>Some population sectors are readier than others to adopt</u>
<u>family planning</u>. Large scale adoptions are reported from places
where mortality declines and socio-economic change has been great
enough so that a significant number of young parents are under the
cross-pressure of a large number of children and rising aspirations
for them. The strata and countries that are most ready may be

described briefly as better-educated, urban, and in the modern
sector of the economy. Examples are Japan, Taiwan, Korea, etc.

4. <u>The power of indirect diffusion in spreading information
about family planning is being demonstrated in study after study in
various countries</u>. Diffusion of family planning ideas is more likely
to occur where there are significant numbers of people participating
in groups in which family planning is discussed. Examples include
the satisfied users of family planning in Taiwan, Thailand, and
India who spread the information by word-of-mouth communication,
reporting successes and creating chain reactions.

5. <u>Women who have demonstrated their fecundity to themselves
by a recent pregnancy or birth are most interested and concerned
about family planning</u>. There is increasing empirical evidence from
abortion studies, from the very significant post-partum programs in
hospitals, and from the data in the Taiwan and Korean program to
support this claim. Increasing ingenuity is needed in devising
ways to use village midwives to identify this group of women for
special programs.

6. <u>There is a growing recognition that important existing
social and economic networks may be used to implement and strengthen
family planning programs</u>. The use of organizers of co-operatives in
the Comilla project, and the sarpanches (village leaders) in the
Meerut program in India point out that involving opinion leaders, who
are the gate-keepers of a social system, can help to make family
planning a matter of community concern by legitimizing the program.
Such practices as recruiting a village girl for the staff, take
advantage of the basic homogeneity of the group in which the norms and
behaviors are shaped and maintained.

7. <u>Face-to-face communication has made much headway in bringing
about acceptance of planning programs</u>. This is demonstrated in Ceylon,
Hong Kong, Taiwan, India, Indonesia, Japan, Korea, and other places.

It seems to be partly because of the inherent limitations both of personnel and of mass media and partly because of the changing nature of these developing countries. A very strong case can be made for a co-ordinated approach so that the various channels interact in order to extend the effectiveness of both the program personnel and the mass media.

8. <u>The more successful programs are distinguished less by their content than by the implementation of the program.</u> Organization and administration are the key to the success of family planning programs.

9. <u>Employer's Organizations have made a significant contribution to some family planning programs.</u> For example, the Junior Chamber of Commerce in India is one of the most enthusiastic promoters of family planning. The Japanese National Railway Family Planning program has certain advantages that other programs do not, such as (I) the establishment has its own housing project, thus employees live close together, and home visits are more efficient and effective; (b) clients have a similar background, thus a steering committee can be formed among housewives; and (c) the familiarity of the instructor creates an ideal rapport because she can come so often.

Non-Formal Education on Family Planning in Africa

The intent of this case study is to look into the communication aspects of non-formal programs of introducing family spacing into the community. So far, all written case studies have been interested in how births have been avoided and the attitude of people about a particular contraceptive method, rather than the communication methods utilized. This manner of approach has made my case study difficult as there is little that can be studied from past work. Therefore, a knowledge of communication methods used in family planning campaigns can only be obtained by future research in Africa. The literature about family planning in Africa discusses

questions such as current birth control methods, attitudes about the need for family planning, religious and traditional constraints, and new methods of delivery of such information.

One of the reports on the attitudes of Zambians towards family planning was made by J. R. Hooker, titled "Population Problems in Zambia." This report was published by the American Universities Field Staff and sponsored by Michigan State University, East Lansing, Michigan. The Zambian men, Hooker said, believe that it is their business to determine whether or not a woman has a child. The men believe that it is too crucial an issue for any outsider to comment on or any woman to discuss. Hooker also found that one method of child spacing that was typical of traditional societies was to have women spend what they regard as their fertile periods away from their men. How this information is passed from generation to generation was not discussed in this report. A non-formal education program which was mentioned in this report was the handing out of literature, contraceptives, and booklets to people in the community by the Pathfinder Fund, the American Friends' service committee, and the Ford Foundation.

A similar case was reported by Norman N. Miller in "The Politics of Population." This particular study was done in Kenya in 1952 by a visiting educator with the Pathfinder Fund.

Another study in Kenya was financed by the International Planned Parenthood Federation in 1962. In this program expatriate nurses and doctors handed out 80% of all contraceptives that come from foreign donors. The method of delivery of the family planning information was through informal education offered in the clinics, mission hospitals, and mobile teams. The introduction of family planning was made an integral part of the material and child health care schemes which aided in its acceptance. The national audio-visual laboratory was utilized in association with materials written in vernacular languages for posters, filmstrips, and pamphlets. Mobile audio-visual film units delivered the same messages to those people not involved in classroom situations.

While Kenya is utilizing all forms of non-formal education to
introduce conventional family planning, Norman Miller reported con-
trasting results from a study concerning family planning in Uganda,
titled "The Dynamics of Population in Uganda." Miller observed
that the only birth control method used by the Ugandians is
abstinence. The traditional belief is thaτ women who stop having
children are unfaithful to their husbands and could become unmanage-
able. They believe that children give prestige to a man and spread
knowledge of the family name. Therefore, the more children one has,
the better off one is. Sons are needed to carry on the memory of the
father; a large family is a symbol of the immortality of the father.
The reluctance to engage in family planning is therefore a logical
consequence.

A family planning committee was established under Asian
leadership in 1966 with grants from the International Planned Parent-
hood Federation, Pathfinder Fund, Save the Children Fund, USAID , and
the Interchurch Fund. One of the striking issues in the reports
regarding family planning is that in addition to the traditional
beliefs regarding child spacing, some African governments are against
the idea of encouraging population control. Victor D. Dubois, in his
report in the Population Review 1970, asserted that there were no
family planning programs existing in the Ivory Coast at that time,
and that none were projected for the foreseeable future because the
dissemination of information regarding family planning programs
was officially forbidden by law.

Dubois further reported that in 1964 the Ivorian government
passed a new civil code and the impact on social structure and family
size would be significant. This new code raises the status of women
and makes it equal to that of men, forbids child bethrothal and
polygamy, and does away with excessive bride price. One can easily
see how these measures are likely to influence the birthrate. I would
like to term the effect of this code as accidental non-formal
education. By raising the status of women to that of men, coupled
with the forbidden child bethrothal, the chances are greater of late

marriage and more education for women. These factors have been shown
in most studies as correlating with a reduction of planned family
size. Although a study by A. Romaniuk shows that polygamous house-
holds are less fertile than monogamous ones, the eradication of
polygamy and high bride prices, coupled with equal opportunities for
both sexes might enhance the free growth of women and confine a woman
less to the dominance of a man's decision on how many children she
must have, as is the case in Uganda.

John Waterbury in his study of Manpower and Population Planning
in the Arab Republic of Egypt reported that the Islamic authorities'
stand against family planning was based on evidence from the Koran that
God wants Muslims to have a happy, healthy family--"Marry and increase
your progeny on the Day of Judgement I will boast of you among other
nations." The difference between the Ivory Coast and the Arab Republic
of Egypt is that in Egypt, there is no legal or religious barrier to
impede couples in planning their families. Abortion is legal; there
is legislation to discourage early marriages; more women are in the
work force which makes them less economically liable to the family.

Mothers-in-law are known to be an important agent for trans-
mitting cultural traits and value systems about family bearing and
raising. One important factor influencing the adoption of family
planning in Africa has been the belief expressed by mothers-in-law
that the best way for a wife to keep her husband is to give him
children. This belief is passed from generation to generation, as are
many other cultural practices.

In a study conducted by L. T. Balenhorst and B. Unterhalter
titled "A Study of Fertility in an Urban African Community," it was
found that the Lobola, the act of giving cattle to the parents of the
bride, was the main cultural factor affecting fertility patterns.
The purpose of this gift is to assure the stability of a marriage
through fertility and childbearing. For this reason women are
encouraged by their parents to have many children and at a young age.
The age of the mother at the birth of her first child is said to
influence the fertility of the woman. Traditionally, there should be

at least two years between the births of successive children. This
provides some check to fertility. Normally this is achieved through
abstinence during the lactation period (approximately two years
among the Bantu). The investigators expressed difficulties in dis-
covering the biological control methods employed by African women to
plan their families. One could assume that this kind of information
is taught in a non-formal way.

Pearce Pradervand, Center for Population Planning, University
of Michigan, reported that in the traditional, rural, pre-independence
society, there existed a natural spacing of births due partly to the
polygamous structure of traditional African society, and partly to
various customs like the separation of spouses after childbirth--
"post partum abstinence." The customs of the Yoruba prohibits
marital relations during lactation, and there is a general belief
all over tropical Africa that if a woman breast feeds her baby while
pregnant, the milk will turn sour and poison the fetus. Some women
believe in avoiding another pregnancy during lactation in order to
recuperate. Others avoid closely spaced pregnancies because it would
necessitate early weaning which in turn might lead to increased
infant mortality. It is normal, therefore, that they forbid marital
relations for two to three years after a child's birth. Spacing is
further encouraged by long periods of breast feeding. These pre-
cautions are taught to the young couples by elders, their parents and
relatives.

A. Romaniuk, in his studies on "Fertility in Tropical Africa,"
Faculty of Social Science, University of Ottawa, Canada, observed that
the average entry age of women into marriage is 16. This, he con-
tended, could be ascribed to African men's desire to marry girls who
have not been contaminated. One could assume that this is necessitated
by the traditional urge of having a child-bearing wife. Abortion is
also legal in order to prevent an illegitimate child. A married
woman may also have an abortion in response to mal-treatment inflicted
upon her by her husband or his family. Post-coital infusions as
contraceptive devices have also been observed. Statistics indicate

that wives in polygamous households are less fertile than are those
in monogamous ones, due to fewer coital performances per polygamous
women. Therefore, the gap between monogamous and polygamous
fertility rates is considerably reduced.

S. K. Gaisie, in his article "Some Aspects of Fertility
Studies in Ghana," suggests that no radical changes could occur
in reproduction habits as long as the lineage system remains
important in Ghanian rural social life. This is also confirmed in
the Area Handbook for Ghana, 1962 by Irving Kaplan. A survey shows
that the rural families favored seven to eight children while urban
families favored five to six children. If it is true that the urban
population is more educated and innovative than the rural population,
one would question Apia E. Okorafor's "Dialog: African Population
Problems," in which the author criticized the Ghanian government for
attempting to reduce fertility by increasing the proportion of girls
entering schools, and the wider promotion of employment for women.

In conclusion, even though there is not much literature about
the methods of diffusing information on family planning in traditional
African culture, certain facts are evident. Whatever form the
information assumes, it must be diffused in a non-formal manner in
most African cultures. Any public discussions of sexual matters are
taboo and, contrary to Everett M. Rogers' opinion ("Taboo Communica-
tion and Social Change: Family Planning in Asia, and Some Suggested
Modifications in the Classical Diffusion Model," or sented to the
Department of Human Communication, Rutgers, May 5, '2), cultural
requirements will not encourage widespread communication about this
taboo in order to give it a chance for acceptance. The result is
that such discussion remains private, personal, and intimate. For
example, Rogers' illustrations of vasectomized males wearing
publicity buttons, or prominent women who have had abortions allowing
their names to be publicized, would create such moral and psychologi-
cal problems in rural Africana that it cannot even be contemplated.

Abortions provide a means of spacing children in a family.
However, abortions can only be carried out by mutual consent of the

husband and wife for reasons already discussed. In the case of an
unmarried pregnant girl, her problems are more complex because
abortion is taboo and she cannot discuss it with anyone in her
immediate community because of the disgrace associated with it. She
would have to rely on her mother or a trusted friend for education on
what to do. Even in this circumstance, the information is confined
to only what is necessary to get her out of her problem. More
detailed information might encourage her not to bear children in
the future, which would be a societal disaster. Related to this
situation is the need of the single girl to maintain her virginity in
order to satisfy the morals of society. It is the single girl's
mother's responsibility to educate her on the need and method
(usually abstinence) of maintaining her virginity. Since her vir-
ginity is supposed to be maintained even if the girl marries very
late, it provides an excellent example of population control education
obtained in a non-formal manner.

Whether the governments intervene in favor of Kenya, or
against Ivory Coast family planning, the sensitive nature of the
topic is well stated by B. Berelson in "On Family Planning Communica-
tion." "Family planning is . . . private in the sense of being
personal, and it's also private in that it isn't talked about very
much, it isn't a normal topic of conversation." It is certainly not
taught in schools. Consequently, its diffusion tends to be non-formal
and relatively private. J. F. Marshall found in India that while
information on a new strain of wheat may spread rapidly and reach all
the villagers for whom that information is relevant, information on
birth control will diffuse slowly and unevenly and may not reach many
of the villagers for whom it was intended because of the traditional
and cultural taboo placed on such discussions ("Topics and Networks in
Intra-Village Communication," in Culture and Populations: A
Collection of Current Studies, edited by Steven Polgar, Chapel Hill
University of North Carolina, Carolina Population Center Monograph 9).

<u>Lessons Gained from the Ingham-Clinton-
Eaton Tri-County Family Planning Program</u>

Introduction

This report describes the Ingham-Clinton-Eaton Tri-County
Family Planning Program in the State of Michigan. The program is
five years old to date and is called the Family Planning Center.
Its headquarters is 701 North Logan, Suite 405, Lansing, Michigan.
The Family Planning Center is a local level program and is part of
the statewide family planning programs. At present all of Michigan's
83 countries have a family planning service. This particular
program serves a network of three counties, namely Ingham, Clinton
and Eaton.

This study is a part of Michigan State University's research
program on non-formal education. The interest of this study was two-
fold. First, to describe a local (easily accessible to MSU), non-
formal educational enterprise and to identify significant lessons from
it, and secondly, to gain practical experience in doing a NFE case
study using a previously prepared set of case study guidelines. Hope-
fully this experience will result in a refinement of the NFE case
study guideline as well as prepare the researcher for non-formal
educational field work.

This case was selected for several reasons. The most
obvious is its accessibility to MSU. A more profound reason is the
relevance of its content and operations to the problems of development,
particularly in the third world (lesser developed countries). Thus
the problem reflects a priority of concern by private as well as
public agencies and institutions the world over. An incidental
reason is its relative newness in terms of some organizational
aspects; hence it is less bound by traditional constraints associated
with deeply rooted delivery systems such as in literacy, agricultural
development, community development, and man-power training, just to
mention a few. It is our hope, therefore, that the experience in
family planning will infuse innovative practices into organization,

management of projects, and the design of a comprehensive delivery system.

This report intends to accomplish the following:

1. To highlight salient elements of the case, those with implications for the problems of development, particularly the delivery of social and economic services to the greater masses of people in the developing countries.

2. To report significant research experiences that have implications for doing field work in non-formal education.

3. To show the utility and non-utility of the non-formal educational case study guidelines developed by the Case Study Seminar group of Michigan State University.

Conceptual Framework and Methodology of the Study

The study deals with several presuppositions. The first is that the case being studied is a program which was created to provide or deliver a public service to a designated constituency.

The second assumption reflects the educational bias of the researcher in viewing service institutions, i.e., the inclusion of curricular issues like instructional content, the instructional mode or delivery of specified messages, the role of the change agent or delivery personnel, and the evaluation of the project in terms of performance behavior or activities of the participants. Essentially the case is viewed as a NFE enterprise characterized by "student" centeredness of the system, rather than establishment centeredness. This non-formal educational enterprise is viewed as a flexible system organized around the problems, needs, interests, motivation, entry status, and learning ability of the student. In this system the organizational establishment adjusts or adapts to the problem-situation of the student. Planning begins and ends with the student's interest in mind. This seems to be in contrast with the more formal educational system, wherein the students are the ones adjusting or adapting to the organizational establishment, namely, the schools. Planning in the more formal system starts with what the organizational

establishment considers as valid, appropriate, and desirable, and is
often establishment centered. Even with the above implied polariza-
tion of the non-formal and the formal educational system, the over-
arching view of this researcher is that any educational enterprise
has elements of both the non-formal as well as the formal system.
This researcher views the problem as a continuum ranging from a more
formal on the one side to a less formal educational system on the
opposite side.

The third assumption is the systems notion of organizations
or institutions. A "case" in this study is viewed as an educational
enterprise composed of interdependent and interrelated components
which function as a unit to achieve certain defined goals. As a
system, it is distinguishable by what it does, how it does it, and
the reasons for doing it. One assumption of a system is that goal
attainment is a joint product of all of its functional components
interacting and interdependent of each other. That is, a change in
one part affects a change in the other part, which in turn affects
changes in the other parts, and so on and so forth, thus making a
collective effect on the total system performance.

Structurally, a system is pictured as a collectivity of
identifiable component parts each having a distinct function and each
part related to the other parts in a certain way. As a unified body,
a system has an expressed purpose for its existence.

As an open system, a family planning organization could be
examined as a transforming or processing system. There are three
study points or areas of investigation of a transforming or processing
system. First are the inputs from the environment that are fed on
the processing or transforming unit. Examples of these are values,
aspirations, expectations, norms from the society; support and
reinforcement from the mass media; financial support (contribution)
from private individuals and government; existing state of the art of
family planning, etc.

Secondly, we can study the transforming unit or the family
planning organization itself. We can study the morphology by

identifying the component parts and the functions of each of the
parts. From structural we can move on to physiological analysis
wherein interrelationships and linkages of the parts are examined.
In here we ask, what does one part feed the other parts? What part
consumes what output from what part? How does change in one
component affect the other components? In other words we examine
the internal dynamics of the organization.

Thirdly, we can examine the outputs or products of the
family planning organization. Two measures could be established.
One measure is that of internal efficiency which tells the system
how well it is doing its job in relation to costs. The other
measure is that of effectiveness which tells the system its impact,
effectiveness, and usefulness to the larger system.

Essentially this study is a descriptive one. The following
is a list of descriptors and a brief explanation of each of them.

1. Antecedent events—events preceding the establishment
of the project (case) to which the case may be linked to in its
origin and conception.

2. Problem—situation-an undesirable social condition
occurring at the time the project was conceived. It provides
rationale for the establishment of the project. It is the state or
condition of the system for which the project has been thought of to
improve and serve.

3. Creation process—series of steps being carried out to
establish the project or to organize the institution. Who led in
its creation? Who were the supporters, the objectors? What
facilitated its creation? What hindered its creation?

4. Organizational structure—what is the hierarchy of the
organization? What are its component parts? What are the functions
of each component part? How do they interrelate to each other?

5. Doctrine--includes the statement of mission of the project. What are the values that the project stands for and the convictions that are expressed? What does it want to accomplish over time? What kind of product does it say it wants to produce? What impact does it want to make on its environment?

6. Resource--refers to source, funding conditions, procedure, and amount of funding for the project. How are funds acquired? How are funds allocated?

7. Personnel--refers to the kind of people employed by the project. What types of professionals are serving in the project? How about non-professional employees? How are personnel selected? What is being done to prepare the personnel for the job? And how are they being made current on the job? What can be said about the quality of leadership of the project?

8. Program--includes the type of services, and the mode by which the service is delivered to the intended receivers. What are the organized activities under the project? How are these activities organized or developed? What are the substantive contents of these various programs? What aids, materials, are being used for instruction purposes? How are these programs promoted?

9. People served (recipient)--includes the people from whom the various programs of the project are intended. What are their characteristics? What is the eligibility requirement for individuals to be served? How do these people know about the availability of the various programs?

10. Evaluation--refers to the system of assessing performance of the project. What are the indicators for measuring efficiency (internal feedback) and effectiveness and impact (external feedback)? What is the scheme for data collection, storage, and retrieval? How are the data being used by the project?

11. Linkage--refers to pattern relationships of project with other agencies, institutions, organizations. What are the resources, services, product, and support exchanged between the project with other systems in the environment? How was this relationship established?

The method' 'gy used in this case study included unstructured interviews with pei. nnel at the local level and personnel at the state level. Persons interviewed at the local level were the administrator of the Family Planning Center, the social worker, educational coordinator, and one of the nurses. Documents, reports, forms and information materials, were provided to this researcher which saved him time and effort in note taking. At the state level those interviewed were the Family Planning administrator, the head of the education and training section, the head of the medical section and the head of the evaluation and program development section. To supplement the interviews and publications, this researcher partici-pated and observed one evening program for teenagers, a program handled by the social worker.

The information collected in the present study reflects more the perspective of the organizational establishment and not of the recipients. The next phase of the study would be to get this other perspective.

The Case
Antecedent Events, Problem-Situation and Creation Process

There had been a long history of privately inspired and unofficial campaigns and actual family planning services provided to needy families in the State of Michigan as well as in other states in the United States. As early as 1929 private individuals through the Planned Parenthood Association (PPA) have been promoting family planning as well as providing services on a limited scale.

In the early 1960s Mackingbarge County in North Carolina set up the first official (county level) family planning program in the

country. Through a vigorous campaign launched by the PPA of Ann
Arbor, some professors from the University of Michigan and some
concerned citizens, a bill appropriating a sum of money to enable
the Michigan Department of Public Health (MDPH) to provide family
planning services finally passed the legislative mill in 1965.
This came at a time when the Federal government was cautious in its
involvement in any family planning program, even when it was evident
that the cities, particularly the ghettos, had been plagued with
problems associated with large family size. It is a matter of common
wisdom that the problems of poverty, malnutrition, mental health,
physical health and the problem of peace and order in the areas where
there is a high congestion of people are interrelated. If a family
happens to be poor, has poor nutrition, is physically unhealthy, and
has a large size the chances are slim that it can get medical and
family planning attention from the traditional public health system
of delivery even if it wanted to. External intervention from
government and concerned citizens is, therefore, necessary to remedy
the problem of ineffective public health delivery to the clientele
mentioned above. Efficient and effective family planning programs can
contribute to the amelioration of the living conditions of the
indigents by breaking the cycle of the interrelated problems cited
above. To cite a publication by the Center for Population Planning
at the University of Michigan, Ann Arbor:

> The cycle of poverty is all too frequently reinforced and
> perpetuated by the arrival of another child. Too many
> children, too many pregnancies occurring too closely together
> are disastrous for the physical and social health of the
> mother and threaten the stability of the family unit.
> Finally, unwanted children are too frequently unloved and
> uncared for, children who later seem inclined to drift into
> patterns of delinquency and crime. Family planning has a
> definite contribution to make toward the alleviation of these
> kinds of personal social and medical tragedies.

After passage of the bill in 1965, a statewide educational
campaign was undertaken in Michigan to inform the local department
of health, private physicians, hospitals, and citizens about the new
law and to get inputs as to what the program ought to look like.

Spearheading the campaign was the State Health Department, in cooperation with PPA, Department of Social Services and the Center for Population Planning of the University of Michigan. In the second year after the passage of the bill, three counties were funded to "experiment" on how a local family planning program may be carried out.

Our case, the Ingham-Clinton-Eaton Tri-County Family Planning Program (the Family Planning Center), started in 1967 as a family planning program of the Ingham County Health Department using Sparrow Hospital as a clinic site, in cooperation with PPA of Greater Lansing.

Organizational Structure

Structurally the family planning organization has the following components: administration, nutrition, maternal and child health, medical-social work, education, and medical. Geographically the program has five satellite centers spread strategically in the three counties in addition to the main headquarters. The family planning center does not exist as a separate program in itself. Rather it has been grafted into a stable, already established organization--the local Department of Public Health. Personnel for the program were, however, newly hired.

The functions of the various components are as follows:

1. Administration--Administration as a function does not only refer to the family planning administrator in the person of Mr. Charles Walford, but rather to the collectivity of personnel whose effort is directed at acquiring financial resources, determining procedures, defining and articulating objectives, determining program, establishing working relationships with other agencies and organizations, and delivery of an efficient and effective service to the people to whom the program is intended.

2. <u>Nutrition consultation</u>--This component is composed of
nutritionists who assess the nutritional status of persons served by
the program and instruct clients in good meal planning at cost levels
patients can afford; the nutritionists attempt to eliminate mal-
nutrition by improving the health of the mother. The nutritionist
serves both as consultant to clients as well as teacher in a class
situation.

3. <u>Maternal and child health consultation</u>--This component is
concerned with aspects of post-conceptual as well as pre-natal period.
Its aim is to lower the infant, neo-natal, prenatal, and maternal
mortality rates through proper spacing of children.

4. <u>Medical-social work</u>--This component is responsible for
providing effective, continuous liaison between the family planning
center and other agencies in the community. It identifies channels
in the community that the center might tap to meet the needs of
clients.

5. <u>Education</u>--This function is charged with informing the
community about the availability of family planning services in the
form of presentations in the community, in groups, mass media
programs, and other techniques. Internally, it is responsible for
the training of professional and para-professionals.

6. <u>Medical</u>--Medical services to clients by the physicians
and nurses include physical examination, family planning counselling,
and supply of contraceptives to clients.

Although the Family Planning Center gets funding from higher
level systems--federal and state level, for the most part--program
decisions affecting the manner and delivery of family planning
services are made at the local level.

Doctrine

The objective of the Family Planning Center "is to help low income individuals and couples achieve the number of children they desire and help them space their children so they come at the desired time." This statement is derived from the concern of the program for the health and welfare of mothers and children. This concern seeks further the "full development of their potential for physical, mental, and social well-being in the interest of better public and personal health." Public investment in family planning is justified in terms of healthy citizens who will contribute to society many hundredfold more than the cost.

In general the objectives of family planning programs seem to vary with agency sponsors. To the O.E.O. the family planning "may be viewed upon as a means of assisting families to climb out of poverty." Others may view it as a "means of reducing ADC roles." Black militants have charged that "it is a thinly veiled program of genocide perpetrated by the white 'establishment.'" Health agencies are primarily concerned "with improving the health of mothers and infants." A document from the State Department of Public Health expresses a statement of clarification: "No responsible government official has ever declared that the purpose of family planning programs is to reduce the birth rate or to control population." In another section of the publication it states that the specific objective of the Michigan Department of Public Health is to "prevent unwanted conceptions through provision of effective service to low-income persons." In Michigan's Health, November/December, 1966, a regular Michigan Department of Public Health publication, an article appeared which could relieve the fears of critics. It said: "Family planning cannot and should not be imposed on anyone, as a population-control measure, or a health measure or an economic measure. But neither can it be denied to those who may need it and desire it."

Resources

Probably the greatest factor that explains the growth of the
Family Planning Center is resources. From a limited operation in 1967
using only state and local money, with Sparrow Hospital as a clinic
site, the program expanded in 1970 when the Federal Government,
through the Department of Health, Education and Welfare, funded the
project. When the program's scope and operations expanded, it was
necessary to relocate the Family Planning headquarters to its
present site. The present total funds for administration and
operation are coming mainly from two resources. The Federal
Government through the HEW underwrites two-thirds of the total
financial resources, while the balance consists of local matching
funds as required by the HEW funding policies.

Federal funds are made locally available for Family Planning
Programs through a system of grants. The funds are administered by
the National Center for Family Planning Services of the HEW through
its various regional offices. This agency was created to serve as
the national focal point for planning, developing, coordinating and
evaluating Family Planning within Health, Education, and Welfare and
to provide financial support through grants for Family Planning
services. The office of Economic Opportunity is another federal
agency which subsidizes local family planning services.

Funds were acquired by the Family Planning Center by
application, through the Michigan Department of Health, at the
regional office of the Center for Family Planning Services. Funds
are granted on the basis of certain guidelines and criteria items
such as (1) objectives of the family planning services program;
(2) purpose of the grant (only available for low-income), (3)
eligibility of applicants (only public and non-profit organizations
are eligible); (4) extent of federal support in relation to local
matching funds; and (5) funds must be used for:

      a.   delivery of family planning services, including
           supplies, personnel, equipment, travel;

      b.   information campaign to facilitate utilization of
           the medical services;

    c.   data reporting system;

    d.   training of project personnel;

    e.   community participation;

    f.   coordination with community resources;

    g.   program planning and evaluation.

Personnel

The type of personnel working in the project are as follows:

1. Public Health Administrator
w. Physicians
3. Clinic staff
4. Community workers (aides)
5. Maternal and Child Health consultant
6. Education coordinator
7. Medical-Social Worker
8. Public Health nurse.

Professional and non-professional workers are given pre-service and in-service learning programs to acquire, develop, and/or increase competence in counseling about family planning and in providing services, including knowledge of different methods of birth control. Types of learning experiences vary from 40 hours of orientation for aides done at the clinic, to attendance in a State sponsored seminar, to in-service training for nurses, to conferences of physicians held at Kellogg Center and the conferences of information officers. Probably the most noteworthy and regular learning experience for family planning workers is the regular conferences of family planning physicians organized through a professional society, the Michigan Medical Society. Such a practice of professional conferences is an old one within the medical profession, employed primarily to increase professional growth and development of the members. During these conferences cases are discussed in closed door objectivity and openly in a truely professional manner. The purpose for discussing cases is to avoid their repetition in the

future by the physician concerned as well as to prevent their commitment by other physicians.

In terms of key leadership, the program is headed by an administrator who seems well prepared for the job, having completed an M.A. in Public Health coupled with an experience in administering a public health program with an even bigger budget in another county.

Programs

The Family Planning Center has several programs (services). They are: (1) family planning counseling; (2) physical examination, (3) contraceptive supplies to clients; (4) nutrition counseling; (5) test for pregnancy; (6) fertility counseling; (7) national and child health consultation; (8) social service referral; (9) test for VD; (10) community education; and (11) vasectomy and tubal-ligation.

Several methods of delivery of the above services are used. The most important is the clinic which is held with varying frequency depending on availability of funds. A clinic is a day designated by the center when eligible clients come for a series of physical and medical examinations, including consultations on nutritional, maternal and child care, and family planning matters. There is also an educational component in a clinic. The educational coordinator meets the clients as a group and an instructional movie on need for family planning and various methods of birth control is shown. After the movie open discussion follows with the educational coordinator fielding the questions. From the educational session the clients individually meet with any of the consultants (medical consultant, social worker, birth control methods, or nutrition consultant). A series of physical and medical examinations then follow. The series of session and consultations before the physical and medical examina-tions help to relieve the client of preconceived anxieties and fears regarding these examinations. A number of printed information materials are handed to each patient to take home.

A form is filled out by a client as soon as she sees the receptionist at the center. The form asks for demographic, social, economic, and cultural background of the client including nutrition and birth control status and practices.

A number of techniques are used to promote the clinic. They range from personalized campaigns by the aids (para-professionals), to TV programs, presentations and speaking engagements by professional workers, and use of leaflets. In a community, word is usually diffused by mouth, from person to person, and the Center has on occasion been so swamped with calls that it had to beg for time to schedule clients for the clinic.

. The above communication techniques are not solely used for promoting the clinic. They are also used as modes for deliverying a type of service--providing information about family planning to the public and potential clients.

Arther approach of delivering an informational type of family planning service is the "teen-rap." Teen-rap is an evening of presentation about the need for family planning and different methods of birth control followed by an open discussion between teenagers of both sexes and the social worker, with the help of volunteer aids. These once a week evening sessions, with attendance varying from 15-25, are held in designated community centers operated by other agencies. The purpose of these sessions is to desensitize young people, to remove fears and anxieties associated with the clinic, particularly the fear of being identified, and fears and anxieties regarding physical and medical examinations. The shyness and reluctance of teenagers to talk openly about sex and birth control is overcome at this session through skillful handling by the social worker and her volunteer aids.

People Being Served (Recipients)

In the early stages of the program, everybody was welcome to come and receive the services free of cost. As the number of clients increased, however, certain eligibility requirements were imposed. It

should be noted that the sources of funding (federal and local) also
stipulated eligibility requirements for program recipients. Only
those who are on welfare assistance (ADC grants) and the medically
indigent (low income but non-ADC grantees) could be served. In
1970, about 30% of those currently served belong to minority groups;
close to one half (41%) are in the 20-24 age group, and about 38%
are in the 15-19 age group.

Evaluation

Evaluation component is a standard feature of Federal and
State supported programs. Policies and guidelines of Federal and
State funding requires that the contracting party specifies
indicators of efficiency and effectiveness. In family planning the
following data are required to meet the state and federal reporting
system:

1. Number of women served
2. Age and marital status
3. Number of children ever born
4. Period of time on continued service
5. Type of service
6. Spacing between pregnancies
7. Birth rates of target population vs. general population.

It can be said that all the above indicators are efficiency
indicators (internal feedback); that is, they show how far off the
program output is from specified goals. Spacing and birth rate,
however, may be called effectiveness or impact indicators (external
feedback) for they show effects of the program on some identifiable
segment of the population.

Three indicators are clearly effectiveness indicators. They
are: (1) the direct economic benefit that occurs by limiting or
removing entirely excess fertility; (2) the direct health benefit in
the form of reduced infant mortality and prematurity that occurs when
births are planned; and (3) the decreased incidence of social problems

such as crimes, delinquency, mental disorder, and family unstability
due to reduction in full-term and premature births.

Linkage

There are a number of family planning providers at the local
level in the area covered by the Family Planning Center. The known
ones are as follows: (1) local health department's Family Planning
Center; (2) private physicians; (3) PPA funded by OEO; (4) the Olin
Health Center of MSU also provides family planning services but
strictly to MSU students; and (5) civic and private organizations
such as church related groups.

There appears to be no problem of coordination among these
family planning providers. For one thing the number of potential
clients to be served is so large that these different providers can
afford to be independent in their operations and still not exhaust
the "customers." Another reason why coordination among the various
providers is not critically felt at this stage is their independence
in their source of funding and support. While some are funded by HEW
and OEO, others are funded privately. Coordination in this light is
only a concern when the various providers have to compete for funds
from a single source.

Cooperative relationship among providers, however, is shown
in three examples. First is in the manner of reporting family
planning statistics. The State has devised a statewide reporting
system which consists of standardized data collection, data storage
and data retrieval. Participation in this scheme is confined, however,
to the public agencies as well as the hihgly organized programs. The
second manifestation of cooperation among family planning providers
is the referral of patients and clients. For instance the family
planning center would refer ineligible patients to provide physicians
who do not impose eligibility requirements. The private physicians
in turn by accepting these referrals allow the family planning center
to confine its services to the needy. The third example of coopera-
tion among providers is professionally related. Professionals in

these different programs seek each other's advice, criticism, support,
services as resource persons, and they exchange information and
teaching materials. Numerous conferences attended by these profes-
sionals are held to discuss cases, to exchange experiences and
information, to discuss common problems and assess current situations.

Most of the pattern relationships, i.e., cooperation among
family planning providers are established through interpersonal means
among the professionals that work in the various programs. A number
of these relationships have originated from their membership in and
previous acquaintances at professional fraternities and groupings.
Many of them know each other from "the good old days" in medical
school or in graduate school, etc.

Another way in which cooperative relationship is established
is what institution building scholars call enabling linkage. This is
the relationship between systems (agencies) based on an explicit man-
date such as legislation, by higher level authority, in which one
agency is required to relate to another agency for authority,
resource, and guidelines. For instance, the HEW requires that all
applicants and grantees of HEW funds must coordinate with the State
Department of Health for application, release of funds, and program
review.

Significant Lessons for the Case

Two categories of lessons are mentioned below. One pertains
to methodology in the conduct of a case study of a non-formal
educational enterprise. The other consists of lessons with implica-
tions to creating, organizing, and managing a public service oriented
program.

Lessons in Methodology:

1. Preparation and contact. I'm suggesting that research on
the organization before making contacts with somebody in that organiza-
tion is extremely desirable. This can be done through a key informant
who knows people in the organization and have accurate knowledge
of the organization's internal dynamics. The value of this preparation

is in identifying the correct points of entry. A researcher could be barred from doing an organizational study or he may not be given courtesy and cooperation by the personnel whom he would like to interview, in a wake of sins of omission and comission. When asking for permission to do the study, it is suggested that the purpose of the study be stated with enough vagueness to avoid sensitizing the responses of the respondents.

2. An increased number of shorter interviews. Sometimes it is more productive to do a short interview (45 minutes to one hour) but to have more sessions than to hold a lengthy one-shot interview. From the perspective of the respondent, long interviews can be boring, or even threatening. It may also take the respondent away from his work for too long a period. On the part of the researcher, long interviews may generate an overload of information incapable of being processed. More frequent sessions give a chance for the researcher to verify or seek elaboration of previous information.

3. Ask for printed information. A great deal of information which the researcher would like to solicit from the respondents are already printed in annual reports, previous research reports, proceedings of conventions and conferences, and mass media materials such as leaflets, brochures, posters, newspapers, etc.

4. See it for yourself. Information from respondents yields information about people in the eyes of people. That is important because wnat metters to people is reality according to them. But there is a danger from second hand information, for reality in this process is subjectively filtered and selected. Sometimes the picture drawn is more accurate if the researcher personally observes or participates in the process he is studying.

Lessons on System of Delivery of Public Service:

1.   In the case being studied a vigorous and long public
campaign launched by an organized citizens group led to the legis-
lators passing a bill allowing family planning services to start in
the State of Michigan.   Privately inspired and unofficially
operated family planning procedures preceded the formal enactment of
the program.   Such informal processes demonstrated the validity and
importance of the idea thus helping persuade the public decision-
makers to approve the bill.

2.   The family planning center was not organized as an
independent body.   It was organized as an additional program of an
already existing stable structure, the local Department of Public
Health.   If the family planning center had been organized as an
independent body, it would have immediately run into a conflicting
relationship with the local Department of Public Health which had
been performing a related function in public health.

3.   Implementing the program on a small scale with an open
mind and a spirit of "experimentation" provided the program with
vital information for designing an appropriate delivery system as
well as preventing serious mistakes, detrimental to the future
growth and development.

4.   Education is a built-in functional component of this pre-
dominantly service agency.   Thus it is shown here that education and
service objectives need not be independent and/or conflicting but
integrated.   (Educational objectives provide long range payoffs
while the service objective fulfills the immediate and practical
needs of the situation.)

5.   The doctrine of this program does not conflict with
people's value systems or with the national interest.   It is
explicit that participation in the program is voluntary and that
there should be no coercion on the part of the agency to get people

to receive family planning services. It is also clear that the purpose of the program is not to prevent births but to space them according to the situation and condition of the client; the services provided are not only to stop conception but also to effect conception for those who desire it.

6. A source of funding (a federal agency) was an effective instrument for introducing sound management practices into grantee agencies by setting up certain conditions and guidelines. For instance, HEW insisted on specific efficiency and effectiveness indicators for purposes of program evaluation. A program review by an external system is also a required feature of the funding.

7. Para-professionals have been employed to serve as aides to help in the promotion of the program at the community level. The use of local individuals as part of the total delivery system has certain advantages. Some of them are: (1) they are more homophilous (similar background) with the intended recipients, thus they can easily communicate messages to the people; (2) there is a high probability of acceptance of the messages because of their known and tested identity with the local people; and (3) it is a means of providing employment at the local level; and (4) it provides a career ladder mechanism in the local community.

8. Professional societies and groupings were utilized to establish inter-agency linkages to increase cooperation among agencies doing similar and related functions. Such a grouping was also used as a channel for continuous professional education of the member-professionals.

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CHAPTER VII

NON-FORMAL EDUCATIONAL PROGRAMS
WITHIN A FORMAL SETTING

By

Louis A. Doyle

This case study is that of the Department of Extra-Mural
Studies of the University of Nigeria, Nsukka, Nigeria. As such, its
purpose is to illuminate the role and function of a formal institution
as it plans and carries out educational programs of non-formal
nature.

The Department of Extra-Mural Studies is that agency of the
University which has the capability, orientation and resources to
serve the larger society outside the walls of the institution. This
calls for the university to share its knowledge, faculty and resources
with those outside the regular on-going degree-oriented programs.

It is necessary for society to depend upon its intellectual
resources to bring about those changes which it desires in the life
styles of its people. The lode star for such change must be found
within the context of the society itself. There are no prophets
from abroad with the ultimate answers to the society's needs and
problems. It is in this way that the university, through its depart-
ment of Extra-Mural Studies, offers much hope. It is not tied to
the past, rather, it has a strong focus on present and future needs.
It has been said that universities have departments, departments
have faculty, but communities have problems. The Department of
Extra-Mural Studies attempts to bridge the gaps between the institu-
tion and society. The Extra-Mural Department has no teaching faculty

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of its own; its role is to define the needs of the society and to
enlist the help and support of the regular faculty in the teaching
and research function. The faculty of a university represents the
highest trained manpower resource of a society. Faculty members may
restrict themselves to a life of academic recluses, carrying on the
old traditions of the university within a formal structure and
organization. They may also, however, use their intellectual skills
and knowledge to examine problems of the society and through
teaching and research begin to attack these problems. It is in this
way that the university becomes a resource for change. In its
teaching within the walls of the campus, it can direct the attention
of the young to the real problems of the society and suggest ways
in which they, in turn, can help to solve these problems. In order
to do this, the community and the nation must become a laboratory
where action research and study is going on. Extra-Mural departments
face outward and are in a position to help those within the formal
structure address these problems and issues.

The university, then, in its most effective role, becomes
an instrument of change. Traditional departments may not find this
activity in accord with their pre-conceived roles, extra-mural
departments have as a most important function the stimulus to give
the total university the desire and will to respond to defined needs
of the larger community.

This paper presents a case study of the Extra-Mural Department
of the University of Nigeria in the area of non-formal education.
The scope of the program covers a brief period of time, 1962-1967,
when the work was interrupted by a Civil War. Perhaps the exper-
iences of the University of Nigeria in the area of non-formal
education has as one of its most salient features as illustration
of the linkage which can exist between the dual educational programs,
formal and non-formal.

As has been pointed out by others, non-formal educational
programs are operated by a wide variety of agencies. Many of these

are outside the so-called formal institutions such as schools,
colleges and universities. There are, however, many formal
educational institutions which do offer substantial programs of
non-formal study. The National University Extension Association,
an organization of over 200 colleges and universities in the United
States and Canada, represents an association whose members are very
much involved in developing, organizing, promoting, and executing
a great variety of non-formal educational programs.

Historically, such programs have their roots in work which
was carried on in the United Kingdom, beginning with the 1860's
when university faculty members provided lectures in a number of
centers in the North of England. These lectures came to provide a
base for non-formal education and its delivery to men and women
living outside the walls of the institution itself. Cambridge,
Oxford and the University of London, subsequently, took up the work
and in the early 1900's, there was a rather substantial program
on non-formal education underway under the direction and stimulation
of the English universities.

Perhaps the most exciting development in the early history
of the movement came with the organization and development of the
Worker's Educational Association founded in 1903, with the organ-
ization of tutorial classes. Such classes met over a period of
three years, involving a small group of students who met on a
regular basis with a tutor and who, in addition, were committed
to written work and to a program of assigned readings. It is
important to note that the WEA, an association not specifically
designed to carry on educational programming, turned to the univer-
sities for help, and it was the assumption of this responsibility
which gave character and authority to the ensuing non-formal
educational programs.

The character and quality of the adults who were thus
brought into contact with the universities through the WEA tutorial
classes, plus the growing desire on the part of more people for

educational services, brought the universities in the United Kingdom to the point where a quarter of a century later, most of them had set up within the institutions departments of extra-mural studies. The expansion of this work on the part of the universities has resulted in a great variety of educational services to ever-increasing numbers of citizens. At the present time, such departments employ over 400 full-time staff members plus nearly 8,000 others, half of whom are drawn from the regular universities. Some twenty-six British universities presently are organized to provide extra-mural or adult educational services to a growing student body.

The most recent development in providing educational services outside the walls of the universities is the Open University. The institution exists to provide degree-level courses for adult students over 21 years of age, already in full-time employment or at work in the home. The work began in 1971 when places were offered to 25,000 students. A giant step away from the formal requirements for university admission was taken when a policy was adopted that admission would be given without pre-requisites. This move brought the formal and non-formal systems closer together and placed the responsibility for academic success on both the student and the institution.

Instruction is carried on in the Open University by a variety of teaching and learning systems, all of them borrowed from such time honored approaches as correspondence study, weekly radio and television broadcasts. There are, in addition, face-to-face conferences at local study centers and summer schools.

With the advent of the Open University, an education system has been developed which came directly out of the early non-formal programs as carried on by the WEA. The important point to be made centers around the role that universities play and have played in supporting and aiding in the development of non-formal education.

Nigeria is the most populous country in Africa and is the largest geographically in West Africa. With an area of 356,000 square

miles, it is larger than Texas and Oklahoma, combined. Located as it is, on transcontinental migration routes, it has been subject to great diversity of cultural influences.

The Nigerian Republic has a wide range of cultural and linguistic groups; its present population is estimated to be 66 million and within this total, there are five or more large ethnic groups. Communication is a problem for it is estimated that there are at least 200 discrete languages spoken. Fortunately, English and Hausa provide the lingua francae, so that there is a solid base for communication.

The University of Nigeria is sited in the Southeastern sector of the country. At the time of its founding, this area was known as the Eastern Region, and it was this part of the country which was the home of the Igbo people, an ethnic group which numbered more than eight million. It was this group of people who attempted to secede from the Republic in 1967, forming a new nation, Biafra. They fought unsuccessfully for over two years in an attempt to establish their independence. It was these people of Eastern Nigeria who, through their former Eastern Nigeria House of Assembly on the 28th of January, 1955, passed the legislation which created the University of Nigeria. The law spelled out the objectives of the University in the following words:

1. to hold forth to all classes and communities without any distinction whatsoever an encouragement of pursuing a regular and liberal course of education.

2. to promote research and the advancement of science and learning.

3. to organize, improve, and extend education of a university standard.

It should be pointed out that the University of Nigeria was to be, from its moment of inception, designed to serve the needs of Africans. It was to be molded in its own unique form, drawing upon models from other lands and taking from them that which would serve the needs of Nigeria. Dr. Nnamdi Azikiwe, who was at that time Premier of the Eastern Region, gave the University much of his energy

and very considerable talent. Dr. Azikiwe, the son of a poor civil
servant, emigrated to London and later to the U.S.A. for his formal
education. Working his way through school, in the fashion of many
others in America, he became convinced that a university which was
to provide leadership in building his own nation would have to be
practical in its outlook, and it would have to produce men and women
who could take their places in the world of work, willing and able
to contribute their talents to the growth of their nation. The search
for a model led Dr. Azikiew to look for an institution, with the
land-grant philosophy, and one which would join with the University
of London in a sponsorship relationship to the new emerging
University of Nigeria. His search ended when Michigan State
University entered into a long-term contract with the Agency for
International Development which would commit its staff and faculty
to assist the new institution. This contract, signed in March,
1960, provided for Michigan State University to render technical
advice to the government of Eastern Nigeria for the purpose of
aiding in the planning, administration and organization of the
University. In April, 1960, ground was broken for the first
building and October 17, 1960 marked the first day of operation
with an enrollment of 220 students and 13 members of the academic
staff.

Continuing Education, Extra-Mural Studies, or Extension at
the University of Nigeria, is concerned primarily with the extension
of university work. It is the agency of the University, aimed at
serving the practical and intellectual needs of a developing nation,
which attempts to relate the University to the people.

This University, alone of all others in Nigeria, provided
for the service and extension aspect in its enabling legislation.
What is suggested is that the architects of the University of
Nigeria had firmly in mind, from the very beginning, plans which
would make the new institution a force to be felt in the drive
to develop the country, its people and economy.

With such a mandate, it is understandable why there was heavy emphasis upon Extension or Continuing Education. A gift from the United States Agency for International Development of one million dollars provided at Nsukka a building known as the Continuing Education Center. This Center became the heart of the extension program and to it came people not only from Nigeria but from other African countries. The Continuing Education program at Nsukka became one which was much studied, and it seems likely that "fall out" from the program there found roots elsewhere.

While the term "Extra-Mural Studies" describes the British equivalent of an extension program, it should be pointed out that the Continuing Education concept goes far beyond the teaching of non-credit classes to adults off-campus. Continuing Education may be compared to a bridge linking the University and the community. Each contributes values to the other.

This case study will describe the Nigerian setting as it related to university-level adult education prior to the time the University of Nigeria was planned and launched, and the roots of the Continuing Education program will be traced and the program itself will be described. It will conclude with an attempt to indicate how the University of Nigeria Continuing Education program may have affected other programs in Nigeria and elsewhere in Africa.

Extra-Mural work as originally organized in Nigeria had, as its central objectives, the carrying out of a public relations function as well as offering courses in the liberal studies to students who were residents of towns throughout the Federation. These courses were not designed to prepare students to sit for the General Certificate of Education, but were, as in England, oriented toward broader understanding of traditional areas of study. There was, in addition, the problem of staffing. The Department of Extra-Mural Studies had its own staff of tutors and these were supplemented by temporary tutors who were to be found in other educational institutions as well as in government offices. There was little

interest on the part of the regular University College faculty in
becoming involved in the teaching of Extra-Mural courses as well
as a reluctance on their part to accord to staff members in the Extra-
Mural Department recognition as colleagues. Finally, there was the
ever-present problem of financing the work of the department. The
suggestion that the Department receive its funds from the regular
College budget was dismissed because it was believed that such a
diversion of college funds would not meet with general approval and
thus would place the work of the Department in jeopardy.

The actual program of studies offered by the Department in
its early years included courses and, to a limited extent, vacation-
type courses or conferences. The College was fully residential, and
during the vacation periods, it was possible to use the living
facilities for adult education programs. Two programs which were
offered were (1) a short course for local government officials, and
(2) an industrial relations course.

This is a brief description of the position of Extra-Mural
work in Nigeria at the time the first steps were being taken to
create the new University of Nigeria in Eastern Nigeria. This would
be the second institution of higher education at university level
in the country; later, there would be three additional universities
created--Lagos, Ife and Ahmadu Bello.

The lessons learned at Ibadan were to provide a background
against which the new University of Nigeria could develop. Already
it was decided that extension work would be an integral part of the
new institution. The designers of the University made this very
clear in the original law: in setting up the new institution such
activity was clearly spelled out.

Over fifty years ago, Richard G. Moulton, Head of the
Department of General Literature, University of Chicago, who had
come from England, put into words the real essence of the Extension
movement.

. . . I object to the view that the Extension movement is a by-product of university activity. On the contrary, it is an essential part of the function of universities, without which no university is complete. I go further. The University Extension movement is the third of three revolutions in society, which together constitute the transition from medieval to modern. The first of these movements was connected with religion; by what we call the Reformation the whole body of the people was lifted into an interest in religious thinking. The second movement was connected with politics; by what we call the Revolution - through bloodshed and civil war - the whole body of the people came gradually to claim a share in government. And by the University Extension movement, instead of a favored few, the whole body of the people has come to claim their share of culture and the higher education. Education has become a permanent interest of life, side by side with religion or politics or pleasure.

The word "extension" must be understood in three senses. The most obvious sense is that the higher education is extended to the whole body of people. Medieval universities were necessarily local institutions: only at a few centers - like Paris or Oxford - were to be found manuscripts and the scholars who could expound them. The invention of printing was the first University Extension movement, sending books circulating through the whole land. Wherever there is a library, there is the gem of a university. In our own time, the teachers have been sent circulating as well as the books; and so University Extension completes itself.

In the second place, the name of the movement implies that education is extended to the whole period of life. Traditional universities, having largely to do with training teachers or other professional people for their professions, were compelled to concentrate what they conceived as education into a few years. Thus arose the unfortunate ideal of a cultural period of three or four years, into which the whole of an education was complete. It is a more wholesome ideal to extend the education through the whole life, side by side with the business or other occupations of life. We should think it strange if such concentration as distinct from extension was applied to other interests of life, such as religion or politics or pleasure.

But again, University Extension implies that university methods and high standards must be extended to all the vital interests of life, instead of being confined to a few subjects of "academic interest." The program of the movement has marked the entrance into university teaching of modern literatures; of art teaching, not in the sense of training artists, but in the sense of developing audiences of music and the spectators of art. It has further witnessed the application of scientific training to commerce, agriculture, social services . . .

But this application of the higher education to the whole
circle of vital interests must include the Humanities. Those
who think the Humanities not "practical" have taken a narrow
view of life.

. . . The circle of studies we call the Humanities constitute
the science of civilization. History sums up as the analysis
of civilization. Literature and art are something more than
this: they are the autobiography of civilization. The evolu-
tion of our civilization has automatically recorded itself in
brilliant masterpieces of literature and art; to study these
is to follow the fine footing of the march of civilization.

. . . Let our University Extension program be catholic; voca-
tional studies side by side with the humanities; vocational
studies, our individual business; humanity studies, our
common civilization.

While there are those who might disparage this vision of the
part that extension education might play in the affairs of men and
nations, yet it does represent the direction toward which the
University of Nigeria set itself in its programs, both on and off
campus. The dream which became the University was not built upon
small plans.

Planning the University of
Nigeria Extension Program

It is important to understand the compelling nature of the
need to establish a viable African university. With independence a
few short months away, with the need to stand apart from all that
related to colonialism and its associated dependence, and with the
understandable desire of the desire of the African to take his
rightful place in the world of free men, the University was planned
and launched. In the foreward to Ikejiani's book, Nigerian Education,
Nnamdi Azikiwe wrote:

Forces which, hitherto, had encouraged the brain-washing of
Nigerians to lose faith in their innate genius and to doubt
their capacity to stand by themselves are now being converted
to believe in education as an investment which should yield
rich dividends in the future. This is gratifying, but this
book particularly emphasized the education of the Nigerian
as a human being, who is endowed by his creator with all the
gifts and talents with which other human beings are endowed.
It seeks to portray the Nigerian not as a problem to be solved,
but as a human being to be accommodated like other human beings
not on mere tolerance, but on the basis of equality and respect
for human dignity.

With faith in the power of education to move a nation forward,
and with a willingness to commit large financial resources, very
large when balanced against the economy of the country, the philosophy
of the University of Nigeria was delineated in words and phrases which
measured the dynamism of the plans for the new University.

In the spirit of the essential purposes of all great universities
since the dawn of man's great struggle toward universal human
dignity, the basic objectives of the University of Nigeria are:

> To seek truth,
> To teach truth, and
> To preserve truth

These ends were legislated for this institution by the Eastern
House of Assembly on the 28th of January, 1955, in the following
words:

To hold forth to all classes and communities whatsoever an
encouragement for pursuing a regular and liberal course of
education.
To promote research and the advancement of science and
learning.
To organize, improve, and extend education of a university
standard.
. . . Underlying this pattern is the belief that the
addition of cultural, vocational pursuits does not demean a
university, but rather ennobles it as well as elevating the
vocations and, through them, the community as a whole.
. . . The founders of the University of Nigeria aimed to
relate its activities to the social and economic needs and the
day-to-day life of the people of Nigeria.
. . . We must frankly admit that we can no longer afford
to flood only the white collar jobs at the expense of basic
occupations and productive vocations, which can be so intelli-
gently directed to create wealth, health, and happiness among
the greatest number of our people, particularly in the fields
of agriculture, engineering, education and domestic science.
. . . By the grace of God - the University of Nigeria
shall be a beacon of hope to those who seek knowledge and skill
for service to humanity.

Continuing Education (Extra-Mural Studies) as indicated earlier,
was included in the planning of the University from the very beginning.
Because of the broad nature of the program of higher education for
Nigeria which the founders of the University envisioned, Continuing
Education had a significant role to plan in making the total impact

of the institution a reality. It is important to realize that the University of Nigeria had developed a philosophy and an approach which was new and unique in Africa. There were no blueprints which would make the work of its founders easy and relatively secure from criticism; on the contrary, from its first days of life it was subjected to continual examination, appraisal and in some cases, to premature judgment. This new institution was to borrow the best from other lands and people, and it was to develop in its own way, to meet the particular needs of its own peoples. This was not to be an "ivory tower of learning" standing apart from its people and their needs; it was to be a "source of light" and was destined to provide the trained leadership which would move Nigeria into its rightful place in the community of nations.

Continuing Education was to be that aspect of the University which related to Nigeria's citizens. It was to carry to the people the findings of the research carried on, as well as the knowledge which was to be found, in the faculty, library, and student body. As a means of bringing all this to the public, the Continuing Education Center was a means developed in the United States and one which had established itself as an important part of the extension process. Through the Continuing Education Center, a facility for residential adult education, the University would be able to offer workshops, institutes, conferences, short courses, seminars and classes to those citizens who were not regularly enrolled students. Adults would be able to come to the University at any time of the year, for the Center was their classroom building. No longer would they be invited only when the regular students were away from the campus on the long vacations; the Center was to be open to them on a continuing basis, and they became students in every sense.

On the occasion of the opening of the Continuing Education Center, June 12, 1965, Ambassador Elbert G. Mathews in his presentation of the Center to the people of Nigeria referred to the symbolic expression of the Center when he said:

There is a lifelong availability of opportunity for continuing education, an opportunity which is never closed. Both on and off university campus, there exist broad-gauged programs that offer instruction of an informal nature in almost every conceivable field - commerce and industry, agriculture, domestic science, the skilled trades, education and the arts.

There can be no doubt that these varied programs in continuing education have had a profound effect on the economic, social, and political development of the United States.

I have every confidence that this Centre, as it grows and is strengthened, and adapts itself to the needs of Nigeria, will also have a profound effect on the citizens it is designed to serve; those who presently need help and guidance, and those of future generations who will find ways in which continuing education can improve and enrich their lives.

The United States, and its Agency for International Development, are proud and pleased that we were able to assist the University of Nigeria in launching the Continuing Education Centre. We are proud of the contribution made by Michigan State University and its team of experts and professors, proud of the brick and mortar and other materials that make up the visible Centre; and we are prouder still that you have taken what we think of an American idea and are forging it into an instrument that will serve Nigerian needs in Nigerian ways.

As indicated earlier, one of the three objectives of the University of Nigeria as expressed in the legislation passed in the Eastern Nigeria House of Assembly, January 28, 1955, was that the new institution was to: "Organize, improve and extend education of a university standard."

This objective found expression in plans for a Continuing Education or Extra-Mural program which was to develop hand in hand with other academic programs of the University.

Continuing Education as a part of the University program represented an attempt to relate the University to its community -- Nigeria. It sought to build a bridge between the people and the institution. As such, it could carry two-way traffic of a complimentary nature. It would be the means by which the University could take its resources to the people and contrariwise, it could inform the Univeristy of those ideas, needs and concerns of the larger community. It would be the means by which one enriched the other, to the advantage of both.

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The lecturer who addressed himself to the problems of a
particular group of people could not help but deepen his own under-
standing of those problems. Having done so, he would be better
prepared to teach his students in such a fashion that their learnings
would be based on the real problems of the real world in which
they lived and worked, this rather than dependence on textbooks which
were likely to be both out of date and designed and written for an
environment far removed from Africa. Thus, Continuing Education would
make the educational program of the University viable and appropriate
to the time and place.

Henry Collins, an associate of Dr. Azikiwe, who had formerly
been associated with the Oxford University Delegacy, prepared a memor-
andum on the proposed Extra-Mural Department at the University of
Nigeria for the University Council in which he argued for an early
implementation of an Extra-Mural Studies Department and also reviewed
for the Council some of the benefits which would accrue to the
University through such a department.

Collins argued for an Extra-Mural Department on several
grounds. He pointed out that one of the chief values which such a
department advances concerns the linkage between the University and
the community, and even more importantly, the effect of that relation-
ship upon the quality of the teaching within the University. He
pointed out that:

An Extra-Mural Department is a link between a university and
the community it serves. As such, it has a dual function.
Through its activities, the university serves the public by
raising the general level of education. This is obvious
enough. What is less obvious, but equally important, is
the service which such a department renders within the
university itself.

Professor R.H. Tawney, the economic historian and a pioneer
of extra-mural education in England, said that he learned as
much from his adult students--the miners, potters and
engineers of North Staffordshire--as he was able to teach
them. Nor was this merely a piece of academic cant. Tawney
did not learn the facts of economic history from his working
class students. But to teach them effectively, he had to

translate the abstract concepts of the scholar into the
concrete language of the streets, mines and factories. Pre-
senting his material in this way and coping with the questions
of his mature but academically unsophisticated students, it
was inevitable that Tawney should view his own studies in a
different licht, with fresh perspectives and with new lines of
research and enquiry suggesting themselves.

In advancing this position, Collins was suggesting that the
Extra-Mural Department at the University of Nigeria should be much
more than a service agency directed toward the public and concerned
with public relations activities and with organized courses of one
type or another. What he suggested was the concept that such a
department made a difference within the University itself, that the
teaching and research of the faculty could become more directly
concerned with the actual problems of the society itself, that the
lecturers would find from their contacts with students in the Extra-
Mural program, new lines of inquiry for study. The values of such
a department would be two-fold; they would accure both to the adult
students in the nation and to the University community itself.

At the same time as the Collins memorandum was being prepared,
Dr. H.R. Neville, then Director of the Continuing Education Service
at Michigan State University, was appointed as a short-term advisor
to the University of Nigeria Program of MSU and asked to author a
position paper on the possible organization and function of a
Continuing Education Service for the University of Nigeria. Dr. Neville
travelled to Nigeria to study the situation, and then presented his
report and recommendations to the Provisional Council of the University
of Nigeria through the Vice-Chancellor, in a memorandum dated
October 21, 1961. Continuing Education at Michigan State University
is a natural component of the land-grant philosophy and operation.
As such, then, it was planned from the very early days of the
University of Nigeria to have a similar kind of program for Nigeria.

Neville, in his paper, advanced a strong case for the early
development of a Continuing Education Program.

Any university, in order to fulfill its potentialities, must
respond constantly to the needs of the society surrounding it.
Especially is this true of a new and vigorous institution of
higher learning in a developing nation. The University of
Nigeria must be prepared to extend the boundaries of the campus,
to teach students of all ages, and to make possible for all who
may benefit to continue learning. To fulfill its role in
society, the University must maintain contact with all segments
of the population, to keep open the doors to research and free
inquiry, to obtain support from the constituency that sustains
it, and to continue its acceptance as the nation's highest order
of a free and open institution of learning.

. . . The University of Nigeria has a peculiar opportunity,
because of its stage of development, to build a continuing
education program which relates to the country of Nigeria and
its people. Already throughout the country the feeling is that
this is a university of the people, for all the people and
developed especially for the Nigerian culture. This beginning
should be capitalized upon and the continuing education growing
program can become a fast-moving and experimental vehicle for
carrying out the total purpose of the University. It can become
a rallying point for all knowledgeable people and for all who
take pride in their country and its future.

The Neville report went on to designate several areas for
which programs should be planned. These included agriculture and
community development, education, business and industry, programs for
women, programs for government workers, and special programs such as
radio, university press, fine arts and performing arts.

Of particular importance was the urgent recommendation that
the University of Nigeria use its planned Continuing Education
Facility in several crucial program activities. Neville spelled out
in some detail just how the new Center might be utilized to carry out
the several dimensions of a Continuing Education Program.

The Continuing Education Center facility must be designed in
such a way so as to reflect the above kind of program and to
reflect the University and the faculty to the many visitors
to the campus and to those who will take part in the Continuing
Education activities. It should become a showplace on the campus
and a building which will serve as an example to all of Africa
and the world of an ideal facility for university adult education,
with respect to design and construction. It is recommended that
the use of the building be as follows:

1. The facility should become the headquarters for the continuing education program and teaching center for the short courses, workshops, and special educational meetings for adults sponsored by the University of Nigeria.

2. The facility should become available to other educational agencies which wish to hold meetings on the University campus. An example whould be the Ford Foundation workshops for civil servants or the I.C.A. seminars for Nigerian personnel. In addition, the various learned societies of the region, the nation and of West Africa should be invited to meet there on a regular basis. Professional societies, especially those in which some University faculty holds membership ought to have the privilege to meet there when the building is not otherwise occupied.

3. The facility should become the transient or guest house of the University . . .

4. The facility should become the place on the campus where evening meetings of the faculty can be held, especially when there is a meal in connection with the meeting . . .

5. If financing could be found, it would be ideal to add a special room on the Center which could serve as a faculty club . . .

That the Council was receptive to the ideas of Continuing Education was reflected in the official action which they took following the presentation of the Collins and Neville papers. The decisions taken by the Council included:

Council agreed that:

a. The Principal should get Dr. Neville and Dr. Collins to work together and, for a start, exchange their respective memoranda and react to them.

b. Care should be exercised in projecting the Extra-Mural Department of the University so that it would be effective and unlike that operated by University College at Ibadan. It was felt that the American-type of Extra-Mural Studies would be of more benefit to Nigeria than other types operating.

c. Subject to the availability of houses, an M.S.U. non-substantive Director should be appointed. Dr. Collins should be appointed Senior Lecturer top scale and to serve also as Deputy Director. Dr. Collins as Senior Lecturer would teach courses in the Department of Economics.

d. Two suitable Nigerians should be appointed to understudy
the Director and Deputy Director directly and the better
Nigerian would take over the Directorship as soon as the
MSU Director leaves, i.e., at the end of two years.

It should be pointed out that the University had already taken
the first tentative steps toward the establishment of an extension
program in Eastern Nigeria. The Harden College of Education had
already offered three or four extension credit courses for teachers.
These courses were offered in places far removed from the campus and
were taught by regular, full-time members of the faculty. Teachers
who enrolled in these courses, while not in every case qualified to
enter the University, were assured that upon attainment of such
qualifications and with a good record in the extension courses, regular
university credit would be given. To the writer's knowledge, this
effort represented the first credit-course extension program in Nigeria.
Subsequently, other institutions in Nigeria picked up the idea.

It must be clear that those responsible for the organization
and development of the new university were facing an almost insur-
mountable task; the myriad details of planning, the recruitment of a
faculty, preparation of curricula, building of physical plant, finance,
and a host of other operational problems all conspired to compete for
attention. In view of these traditional and high priority concerns,
it is all the more remarkable that the Council and administration of
the University would take the time to chart out the path of the
Continuing Education program. Yet it was part and parcel of the
commitment to the "land-grant" philosophy which made it necessary to
give to this dimension the necessary thought and attention. Continuing
Education, then, was not an 'added on' something extra, but was, from
the very early development of the University, an integral part of the
total institution.

In the spirit of pioneers, the Council, administration and
staff approached the task of charting the developing university program.
There was a sense of 'newness' and 'expectancy' which enveloped these
early planners. A sense of destiny permeated the air; Nigeria's newly

won independence demanded dramatic action in the higher educational
sphere and the leaders at Nsukka were prepared to embark on new
pathways. This point of view was cogently set forth by Ikejiani.

> The University of Nigeria emphasized "not only academic and
> cultural excellence, 'according to the classical concept of
> universities' but also scientific and vocational excellence,
> according to the modern concept of universities. The Univer-
> sity of Nigeria must approach its curriculum in a somewhat
> different perspective from that which has hitherto characterized
> the idea of university college education in West Africa." The
> program of the University of Nigeria for Nigeria is, therefore,
> new and revolutionary. The emergence of Nigeria as an indepen-
> dent nation imposes on the University of Nigeria the obligation
> to prepare not only for special tasks and competences, but also
> for responsible citizenship in a free nation, this not solely as
> a part of the national life, but the very heart of it. Implicit
> in this obligation is the recognition of the demand for leadership
> in every field of human endeavor. In order to succeed with
> independence and the obligations which it involves, and to
> survive as a national sovereign state, a high level of academic
> competence over a wide range of human affairs is needed; more
> Nigerians must be enabled to expand their knowledge to the
> limits of their individual capacity and all must be enabled
> to make use of their abilities.

Early in 1963, the National Universities Commission visited
the University of Nigeria as a part of its early efforts to get a grasp
on the extent and nature of developing higher education in Nigeria.
Various deans, department heads, and other officials of the University
made formal presentation to the Commission dealing with the work of
their respective units. The writer and then Director of the Depart-
ment of Extra-Mural Studies prepared and read the following statement
to the Commission. It is repeated here for further clarification of
the program.

> A commitment to a strong programme of Extra-Mural Studies (also
> called Continuing Education Programme) has been evident in this
> University from its very beginnings. The founders of the Univer-
> sity of Nigeria had in mind an institution which would relate its
> teaching to the present day social and economic needs of the
> people of Nigeria. This commitment and its implementation calls
> for an expanded educational programme. One which reaches out
> beyond the campus of the University and brings to the citizens
> of Nigeria, educational services.

In particular, such an outward thrust calls for dynamic and imaginative programme development. It is not enough to take the courses which appear in the prospectus and to offer them to adults. Rather, the need is to relate in meaningful and life-like ways, the knowledge, skill and the research which is to be found within the University.

To whom shall all of these educational services be extended? The answer to this question is -- to those who are capable of profiting by these services and who have need of assistance in developing themselves.

The idea that the University has as one of its functions that of serving the people directly is a new one. The need exists for continuous demonstrations of what such services are like. The typical citizen does not realize that the University is anxious to help him in his day-to-day problems. He is likely to think only with matters which are related to a select few, to those who enroll in full-time programmes leading to a University degree.

He needs to know that every human activity which relates to man's honest attempts to improve himself, his economic life, his village, community and nation, is most worthy of the serious attention of the University's scholars. It is to this important area of concern that the Department of Extra-Mural Studies addresses itself. It is interested in the farmer who tills the soil. It is interested in the mother who faces the tremendous task of raising her children, educating them, providing the necessary foods to sustain and nourish them. It is interested in helping a government worker who wants to extend his education, seeking to improve himself not only in his present position but to ready himself for larger responsibilities. It is interested in working with government officials, who desire help from the University not only for themselves but for the purpose of bring-ing to bear on the solution of economic problems, the best thinking which the University affords. It is interested in working with the teachers of our children, helping them to improve themselves so that they may in turn do a better job of teaching with our boys and girls in the classroom.

I am sure that at this point, a question which is in your minds is this, "How can the University do all these things?" Obviously, the University with its limitations of staff, finance and other resources can only begin to meet these needs. What is really important at this time is that the University has recognized its responsibilities in this area and has demonstrated its willingness to take whatever resources that are available and place them at the disposal of the kinds of people we have been talking about.

The University of Nigeria is a new institution, just a bit more than two years old. The Department of Extra-Mural Studies, while envisioned as a part of the total University, has been in operation for a few short weeks. The Director of this Department reported to Nsukka 18 September, 1962, under the participant programme of the United States Agency for International Development.

Two additional assistant directors have arrived in Nsukka; one in November and the second in January, 1963. The University Council has taken steps to appoint three Nigerian faculty members who are to be assigned to the Department, and who will begin immediately to prepare themselves to assume eventual total responsibility for this work. It is expected that these new staff members will, as a part of their preparation, spend some time in studying abroad where they will be involved in training programmes specifically designed to acquaint them with the philosophy and newer techniques appropriate to Extra-Mural or Continuing Education work.

In a few short weeks, construction will begin on this campus of a Continuing Education Centre. This building has been designed specifically for the teaching of adults who come to this campus for residential study. Such teaching will not be for university graduates leading to degrees, but will be of a nature which will have direct and specific application to the needs and problems of those involved. For example, at this moment, there is on this campus, a group of 23 teachers who are involved in a five-day study programme which is designed to help them to do a better job in the teaching of English in our schools. To give a further example, plans are now being developed by the Department of Extra-Mural Studies, the College of Agriculture and the Ministry of Agriculture to bring in a group of farmers who are engaged in the raising of poultry, to this campus for a short course. While here, they will be housed and fed by the University and there will be a planned intensive series of lectures and discussions aimed at helping them to do a better job of raising poultry.

We could continue to describe specific adult groups who have been on this campus in the past. We would, of course, mention here the programme conducted on this campus last year for over 500 members of the National Union of Teachers.

This was a course of instruction lasting six weeks for teachers who were not certified and who had been in many cases, people of extensive school teaching experience. This was a refresher course aimed at helping them to be better teachers.

These are the kinds of groups which we will be welcoming to this
campus in increasing numbers. It is for the use of these people
that the Continuing Education Centre will be maintained. In this
Centre, there will be 56 bedrooms, each of which will accommodate
two guests; bath facilities and services appropriate will be
provided. The Centre will have eight classrooms which will be
equipped with comfortable furniture and arranged in such a way
that it will be appropriate for the use of adults. Further,
there will be large and small dining rooms, set up so that various
groups, if they wish, may have their meals together.

The Continuing Education Centre is being made possible by means
of a grant given to the University of USAID. In addition, the
three advisors mentioned above are being supplied to get this
project developed and operating.

What has been said so far should not be taken to mean that the more
traditional aspects of Extra-Mural work are being neglected.
There are in Eastern Nigeria, currently, 40 Extra-Mural courses
organized and underway. These courses are being offered in 13
Centres ranging from Enugu to Calabar.

This work, it is expected, will be supported by a grant from
the Ministry of Internal Affairs, of Eastern Nigeria. For the
past several years, University College, Ibadan, has conducted
this programme for Eastern Nigeria. It has been the wish, however,
of Ibadan to have this work assumed by the University of Nigeria,
and the Vice Chancellor of University College, Ibadan has written
to the Ministry of Internal Affairs suggesting that the grant
which they have heretofore received be transferred to this
University.

The University is certain that as the idea of "service to people"
becomes familiar to our citizens, that there will be increasing
demands made for the Continuing Education of people. It is
further evident that as people come to appreciate what the
University is able to do for them, they will support it in
every way.

While it is unrealistic to expect that the Commission would,
on its first study visitation, develop into avid supporters of
Continuing Education programs for Nigerian universities, there was,
however, a note of warmth expressed by them in their subsequent report
where they declared:

> We cannot state too strongly the argument that if Nigeria is
> to emerge from her present predominantly subsistence economy
> with the next two or three decades, then the universities must
> be enabled to play a much greater role in the life of the com-
> munity; and they must be better supported financilly than they
> are at present.

In charting the dimensions of the Continuing Education program
in the new University, the planners, realizing that the nature and
scope of the program should be tailored to the needs of a developing
nation, sought means whereby they could draw upon the experiences of
a variety of resources for definition and direction. Aware of the
needs to build upon the base already established by University College,
Ibadan, in Eastern Nigeria, involvement of that institution was
sought in a planning seminar. Perhaps more important, in the overall
design of the new program was the inclusion, in the planning process,
of a large number of Nigerians. It was recognized that the new
University was to be African in basic design and that the people most
likely to sharpen the focus of the program would be those whose
future hopes, ambitions and goals were tied into the institution.
Accordingly, invitations were extended to significant individuals
in government, in private agencies and in lay leadership positions
to assist in the planning process. Representatives from the Eastern
Region Ministries of Agriculture, Health, Internal Affairs, and
Education were invited to come. Further, the Eastern House of
Assembly and the Premier were represented. Counsultants from the
United Kingdom and the United States were present and the Seminar of
Continuing Education, in session beginning October 28 to November 1,
1963, addressed itself to three objectives:

1. To identify major goals for the Extra-Mural Department
   of the University of Nigeria.

2. To have the benefit of judgments rendered by recognized
   authorities in the field of University Adult Education
   so that the Department of Extra-Mural Studies can be
   guided in future development.

3. To establish priorities in the developing programmes of
   Extra-Mural work at the University of Nigeria.

This seminar provided the Department of Extra-Mural Studies
with an opportunity to bring together a diverse group of interested
people, many of them experts in the field of university-level adult
education programs. At the same time, members of the University
faculty and staff were brought into the seminar sessions adding in

many cases excellent ideas, and at the same time, picking up from
the visitors suggestions as to how they might relate to the Extra-
Mural Program itself.

At the close of the Seminar, the consultants agreed that the
organization and role of the Department would be:

I. The Organization

    1. The Department of Extra-Mural Studies is the channel through
        which the University extends its services to those who are
        not full-time students on the campus. As such, it is the
        administrative arm through which the University is made
        aware of the educational needs of the people and through
        which the services and resources of the University are
        channeled to the adult citizens.

    2. The Department of Extra-Mural Studies at the University of
        Nigeria should develop along unique lines. Generally, such
        a department would have its own teaching staff and would be
        directly involved in the teaching of courses, seminars,
        conferences and other informal adult education activities.
        The consultants to the seminar emphasized that the University
        of Nigeria, the Department of Extra-Mural Studies should draw
        its faculty resources from the regular University faculty.
        In special situations, part-time lecturers might be obtained
        from secondary schools, colleges, governmental agencies,
        business and industry. This suggestion was made by the
        consultants in view of the need to make the best possible
        use of skills and teaching resources and to avoid building
        up within the University a separate faculty within the
        Extra-Mural Department. It was their view that it would
        be economically sound to utilize the existing staff and
        also that the Extra-Mural program itself would be enriched
        by having available to it the total faculty resources of
        the University.

II. The Role

    1. The Department of Extra-Mural Studies should carry on a
        continuing program of research designed to analyze the
        educational needs of the adults of Eastern Nigeria, as well
        as research into the adult education activities being
        carried on by other agencies in Nigeria. It needs, further,
        to involve itself with the other universities in research
        which will permit analysis of the total needs and resources
        of the nation.

2. Training and Consultation: The Department of Extra-Mural
    Studies has a basic role to play in working with those who
    are involved directly in teaching adults. In particular,
    there is an obligation resting upon the department to
    assist teachers who may have little or no training in the
    art of teaching, to improve their understanding of the
    educational process, and to help them in acquiring the
    methods and techniques of teaching adults.

3. The Initiator of Adult Education Activities and Programs:
    The Department of Extra-Mural Studies can be most effective
    if it uses its limited resources to initiate adult educa-
    tion activities and programs which it can then hand over
    to other agencies for implementation. Within the Department
    itself, there would be the research which would permit the
    Department to point out areas of need and to draft programs
    to meet those needs.

4. The coordinator of Adult Education Activities and Functions:
    The Department has a coordinating function operating in
    concert with the various Ministries, helping them to look
    at certain adult education needs as these are reflected in
    programs which the various ministries conduct and which are
    aimed at the same audiences, e.g., Youth Work and Community
    Development. It was recommended that the Department concern
    itself with utilizing the problem approach and that attempts
    be made to enlist the total support of all agencies at work
    on the problem.

III. The Priorities

The Consultants recommended certain broad program areas in which
they felt that the Department of Extra-Mural Studies should be
active. These are:

1. Formal Classes: Classes in general and vocational studies.

2. Agriculture: The Extra-Mural Studies Department should, in
    cooperation with the appropriate Ministries and the College
    of Agriculture, involve itself in developing and organizing
    educational programs designed to assist extension workers
    and other technicians in the field of Agricultural Extension
    and Community Development.

3. Health, Home and Family Living: The Department, with the
    College of Home Economics, appropriate Ministries, govern-
    mental departments and volunteer agencies, should develop
    and organize training programs designed to help those who
    are involved in the whole area of teaching adults at the
    community and village levels concerning health, home and
    family living.

The recommendations arising from the seminar were given wide circulation among the faculty and staff. This exposure served to acquaint the University community with the Department's goals and plans. It brought to the Department's attention the kinds of interests which the faculty wished to express through the extension work. As an example, one (not an American) faculty member in the field of Business Administration indicated a need to do some research with indigenous business organizations so that his own teaching of students enrolled on the campus might be more realistic. Nearly all of the teaching materials available to them were texts written about business as it was conducted abroad and did not, of course, treat the types of situations which Nigerian students would encounter in their own country.

The Program

The Continuing Education program formally began in September, 1962, with the arrival of the first MSU advisor (the writer) assigned to the task of developing and implementing an extension program. Initially, the scope of the program was limited to the offering of classes in various off-campus locations. These classes were, for the most part, modeled after the program which had been carried on by University College, Ibadan. The Eastern Regional Government, by means of a subsidy to Ibadan, had provided funds for the offering of a class program in the East; there were students who had been given educational services and they were interested in continuing without a break or lapse in the work. The expectancies which the students had of the Extra-Mural classes were based on their previous experience with the Ibadan program. They viewed them as being aids to preparation for the coveted G. C. E. qualifications. This, despite the official position of the Extra-Mural Department at Ibadan that the purpose of the work was to develop broad backgrounds in the liberal arts. The end sought in the program was general education, not coaching for the writing of examinations. To observers then, the program administered from Nsukka looked exactly like the program formerly offered by Ibadan.

Some slight innovations were attempted, however, in the early program. Essentially, these concerned the offering of a few classes in the vocational or technical areas. Accounting, report and letter writing, and secretarial skills were some of the areas covered in these early attempts to introduce into the program offerings which would relate directly to the development of job-related skills. These courses were not popular with students, for they failed to see how they could affect their educational advancement; they were not subject matter areas normally coverted by the G. C. E. examinations and, consequently, were not seen as contributing to the ultimate goal, i.e., a paper qualification.

The potential dimensions of what the Continuing Education program would be had to wait upon the construction of the Continuing Education Center, a conference facility built with funds supplied by USAID. This center, modeled after a similar center at Michigan State University, was to be the physical faciltiy which would give dramatic reality to the continuing education concept. The Center's construction was begun in July of 1963 and the building was officially dedicated in June, 1965. During this period of almost two years, the conference program was developed and the groundwork laid for the larger effort which was to come later.

Perhaps the most dramatic demonstration of a type of extension program format which was in the future came with the planning and offering of a conference for poultry farmers. In this effort, a linkage of the Ministry of Agriculture with the faculty of Agriculture proved to be a most important and crucial matter. The Ministry, which had under its wing the extension services to farmers, was not at all certain that what the University had in mind in providing educational programs to them would not pose a threat to its autonomy. There had to be development of mutual confidence in the goals and aims of the two institutions before progress could be made. The idea that an institution at the level of a university would have an interest in addressing itself to an audience of practical farmers was without precedent in their experience. That there could be practical

demonstrations of theory scaled in such a way that university lecturers could transmit knowledge to peasant farmers was an unheard-of possibility. Further, that the lecturers themselves would not deem this assignment as something unbecoming their status was even more astonishing.

Early conferences included work with such diverse groups as teachers, health workers, village leaders, government officials, tradesmen, church leaders, professional organizations and others. In each case, a condition for the holding of a conference was the active sponsorship by an academic unit of the University. This meant that there would be University involvement in the planning, organization and conduct of the event.

The involvement of regular, full-time faculty and staff members as lecturers in the Continuing Education program was the signal difference between what might have been, on one hand, a peripheral, minimal contact between the University and the community, and on the other, a close, integrated, mutually beneficial relationship. This interaction between the society and the University provided the contact needed for a program of Continuing Education to yield its full potential.

There is evidence to indicate something of the role that was played by the University of Nigeria in aiding all of higher education in Nigeria to re-examine itself in the light of its program development. Clearly, the interaction among the several universities has resulted in a richer and more varied program of studies. There has been introduced into the country a spirit of competition in educational institutions. This competition has been productive of change, and such change generally has been beneficial. In the particular area of Continuing Education, there is some evidence to indicate that the total offerings of the various universities in Nigeria is much broader and that groups served are more representative than was the case in 1960, the year in which the University of Nigeria launched its program.

The Continuing Edcuation Center was an unfamiliar facility in that year; today, such centers are either built or planned in each of the other four uriversities. Of paramount importance is the acceptance at all Nigerian universities of the obligation to develop strong pro- grams of adult education directed at wide and diverse audiences. Gone is the rather limited fare of the Extra-Mural class oriented toward those who, had fortune been more favorable, might have been enrolled as full-time students. Rather, classes are now offered for a broad range of student interests, vocational, professional, and liberal education.

The Harbison Committee on Education and Human Resource Develop- ment in its report dated December, 1967, describes the role of Nigerian universities as related to the extension function. The report states: "There are still those within the university community who maintain a conventional resistance to growth producing subjects in the university curriculum." The authors of the report find, however, considerable evidence that sweeping changes are occurring in the area of university extension operations. They point out:

> But it is impossible to travel inside the Nigerian University community without finding impressive evidence of a ferment of ideas and of an open-mindedness to the role cf a university in a young nation that gives very strong encouragement to an exploration of the service role of the five Nigerian univer- sities. Nor is it possible to make really sharp distinctions between universities in this regard. There is an exchange of experience between universities that lessens contrasts and increased similarities.

> While the University of Nigeria at Nsukka by design and policy aims to extend its service role in the community, each one of the other four institutions also has programs and activities concerned with extra-curricular and extra-mural education. The Institute of Administration at Ahmadu Bello University is actively engaged in a resourceful program of legal and administrative training reaching down to the lowest level of the court and administrative system of the Northern Region. It is one of the best illustrations of the impact that can be developed upon the community from within an academic institution. At the University of Ibadan, the faculty of Agriculture is

clearly aware of its extension opportunities. A Continuing
Education program is well established and expanding. The medical
school has boldly broken with tradition in pioneering new
degrees on the medico-technological level, and the Institute
of Education has a real concern for problems of the nation's
school system.

At Nsukka, which is modeled in part after the American land-
grand college, the extension idea is pervasive. It is taken
for granted that the service role of the University is a standing
obligation upon the entire staff of the institution. The
position of the University administration is given substance and
form by the existence of an admirable Center of Continuing
Education capable of giving direction and accommodation for a
diversified continuous activity in extension education. At
Nsukka, it is especially noteworthy that the administration, by
word and deed, and the staff by understanding and consent,
are prepared to exploit available opportunities for extension
service. Because of the involvement of the entire institution,
generally in the spirit of the American land-grant college, the
University of Nigeria is well ahead of all the other Nigerian
universities.

Without exception, all of Nigeria's universities have or plan
to have Continuing Education Centers. While it is true that the
Continuing Education Center model has a history in the United States
which goes back to the early 1930's, it is likely that the Center
at Nsukka gave visibility and impetus to the idea so far as Nigeria
is concerned. Ibadan has a residential conference center, Ahnadu
Bello has a completed center, built with funds supplied by the Ford
Foundation, Lagos has plans for such a center and Ife, also, is
hoping to build such a facility.

Outside of Nigeria, the Continuing Education idea is taking
root. The University of Ghana is currently seeking a person to head
up its Continuing Education program and Makerere University College
in Kampala has already taken steps to build the continuing education
philosophy into its program. Recently, Dr. Y.K. Lule, Principal of
the College, in a speech pointed out that: "At Makerere, we are not
content to concentrate merely on the few who have reached the Univer-
sity level and the effect they can have on the younger generation.
We hope also to have a strong influence on adults who have not had the
opportunities to the present generation, by embarking on an ambitious

programme of adult education through our new Centre for Continuing Education."

The 'winds of change' are sweeping through the various university extension programs of Nigeria and parts of Africa. The trend is toward closer involvement between faculty of the university and the community, be it local or national in scope. The engagement of the university lecturer with the day-by-day problems and concerns of the citizens of the country is helping to keep the university keyed into the contemporary scene. Through continuing education, the programs of study offered to full-time students enrolled in the university are made more significant and meaningful, and the university is able to contribute realistically to the urgent task of nation-building. In the process, each enriches the other. The people of Nigeria are the ultimate recipients of this movement; they are to reap the harvest in enjoying a society where the goal is "To restore the Dignity of Man."

The Continuing Education idea will survive in Nigeria; it is more than the bricks and mortar which made up the Continuing Education Center, more than the conference program, more than the off-campus courses taught, more than community development activities, and the programs in women's education. It represents a dedication on the part of the University to work for the growth and development of all the people of Nigeria - and as such, it will continue to play a major role in the development of that country.

CHAPTER VIII

MANPOWER DEVELOPMENT IN THE URBAN-MODERN SECTOR

By

John R. Mietus

Introduction

This chapter addresses itself to the practical aspects of
manpower development in the modern-urban sector. It is concerned with
those situations where it has been decided that further development
of modern-urban sector employment is desirable and the question is
"What are the various alternative means, and which seem to work better
in certain situations?"

Occupational roles to which the information gleaned from this
study may be most generally applied are in commerce, manufacturing,
government, social communication, and household activities. Those to
which it is least likely to apply are in agriculture, fishing, educa-
tion, and research. Heaviest emphasis is on pre-vocational and job
entry training for unemployed disadvantaged youth and managerial-
entrepreneurial development.

In the broadest sense, the development aims of non-formal
education in manpower development are to help youth and adults
acquire the behaviors, norms, and information necessary to successfully
master their own changing work environments.

In pre-vocational training (PVT) the objective is to produce
trainable individuals, that is, to establish in the trainee the general
and basic information, skills, attitudes, and habitual behaviors needed
for specific vocational training and/or low level employment in the
modern sector.

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Specially, PVT aims at giving the trainee sufficient informa-
tion to allow him to choose a tentative skill category. It seeks to
impart positive attitudes towards basic skills in reading, writing,
and arithmetic as tools for increasing job competence and to impart
positive attitudes toward work and discipline. It also seeks to pro-
vide skill training in working cooperatively and efficiently with
others, in working with basic hand tools, and in work safety, first
aid, and personal hygiene.

Job-entry training seeks to instill specific information and
skills needed for a particular job or class of jobs. This training
usually takes place on entering, or shortly before or after entering
specific employment. Job-entry training involves orientation, specific
job instruction, work experience, and further education.

Career-long further training has as its goals the advancement
of job competence, the renewal or updating of job skills, and/or
preparation for possible transfer to other skill areas. Within this
area in addition to vocational training are included managerial, super-
visory, and entrepreneur development.

It is often difficult to differentiate PVT from job entry
training, and it may be better for the reader to conceive of these as
movable areas on a continuum. In some programs PVT is totally separate
from job entry training while in others the two are inseparable.

How the Material for This Paper
Was Obtained

Information was obtained almost totally from written case
studies, project reports, descriptions, and surveys of case studies,
all within the arena of non-formal education (NFE). The vast majority
of case material surveyed was obtained from regular university library
holdings. A smaller amount was obtained from sponsors of NFE, i.e.,
private companies, productivity centers, and government bureaus.
Within all areas of vocational training, approximately 120 different
examples of NFE were considered. Within managerial, supervisory, and
entrepreneur development approximately 60 instances were noted. This

research method has inherent flaws: the inability to determine whether one has missed important studies that would alter findings, and the necessary reliance on data and reports which were gathered for purposes other than those of the present research. Nevertheless, the reader should regard the information and tentative genralizations as a stimulus to his own ideas and knowledge, and as possible methods which he might try in his own manpower development programs.

Pre-Vocational and Job-Entry Training

Two broadly representative examples of these types of training have been selected for brief descriptions after which tentative generalizations from these and other cases will be presented.

Example 1

Title: Christian Industrial Training Center, Nairobi, Kenya.

Historical Background: The project initially started as a small youth center to help unemployed youth who were becoming delinquent; it later developed into a training scheme and has expanded to three centers.

Mission: The training of local teenagers for employment as artisans in Kenya's industry.

Students: Priority is given to students in need, those who are orphaned or delinquent. Applicants must have Kenya Public Education Certificates (K.P.E.). The Nairobi Center has a throughput of 216 trainees, Mombasa has 108, and Kisuma has 48. Over 1,000 trainees have been placed in employment since the Nairobi center opened.

Destination of leavers is wage employment or further training at Kenya Polytechnic, often in conjunction with wage employment. Follow-up of leavers is accomplished by special events and weekend activities.

Sponsor: Funding is mainly from the Church Missionary Society. Other funding is from the government and the Nairobi city council. Some income accrues, from private donations, sale of merchandise, and fees charged to those who can afford them.

A board of governors, made up of representatives of local and central government, employers, trade unions, and local and national churches is reponsible for administration.

Mentors: An African staff does most of the teaching, although two expatriate staff are also employed.

Media and Content: In Nairobi and Mombasa, artisan training is a three year course. In the third year the student specializes in

either carpentry, blacksmithing, sheetmetal work, fitting and turning, painting, sign painting, or electronics. The first two years follow the Kenya Junior Secondary Examination, with extensive additions of production training in simulated industrial conditions. Also, sports, physical training, and accounting are encouraged as forms of character development. The Kisumu Center has a one year secretarial training sequence, which results in a school certificate.

Source: Commonwealth Secretariat, Great Britain, Directory of Training and Social Development Programmes, Draft Copy, 1972.

Example 2

Title: Opportunities Industrialization Center, (O.I.C.) Lagos, Nigeria

Historical Background: Lagos has had an especially severe unemployment problem, with an estimated 80% of immigrants to Lagos unemployed or underemployed. Inspired by the United States O.I.C. program in 1968, a private group in Lagos requested of the United States O.I.C. that a similar center be set up in Lagos.

Mission: To provide training in locally needed skills for those unable to find employment, and thereby promote small business generation.

Sponsor: U.S. Agency for International Development grants for 1970-1971-1972 totalling $450,000. Board of governors has representatives from government, local community, and private sector. Initial planning and set-up was done with O.I.C. International help.

Students: Recruited mainly from school leavers in the 16-20 age bracket. Students requiring pre-vocational training are placed in the program; there were 54 in the first class (1971). Projected throughput is 300 over the first four years.

Mentors: Nigerian, with American assistance in curriculum development. In addition to trainers there are what are termed "job development specialists," whose function it is to seek out or assist in creating jobs that relate specifically to training students and also to providing information for changes in the training program which might be necessary to maximize the direct correlation between training and placement.

Media: A pre-vocational program which includes recruitment, intake, assessment, orientation, counseling, referral, and instruction. Instruction includes orientation to job categories, communication skills, computational skills, personal development, history of Nigeria and Africa, job finding techniques, consumer education, the world of work, pre-employment preparation, and techniques in taking pre-employment examinations.

The vocational program will change depending on local market demands. Initially six skills were taught.

Job development is designed to find jobs for trainees and place them successfully. Emphasis is put upon placement at the highest possible job level.

Source: Sheffield, V., Diegomooh, V., <u>Non-Formal Education in African Development</u>, New York: African-American Institute, 1972.

<u>Tentative Generalizations Concerning</u>
<u>Prevocational and Job-Entry Training</u>
<u>Based on All Studies and Reports</u>
<u>Surveyed</u>

1. The most severely disadvantaged youths are not being reached by a great number of programs. In attempting to reach out-of-school, unemployed youths, numerous projects would recruit from this category of persons and then select the "best" of those for training. The most disadvantaged, as a result, are not trained.

It was found in U.S. Manpower Development and Training Act (MDTA) programs that severely disadvantaged youth react negatively to traditional selection, intake procedures and training, and that they perform poorly in them. It was suggested that because severely disadvantaged youth want jobs, not training, that these persons be placed quickly in actual or simulated work situations, and then, over a period of time, be tested for aptitudes and trained.

2. Recruiting, to reach severely disadvantaged youth, must be actively pursued. Target populations must be defined clearly and actively solicited for participation. Friends of trainees have proved to be the most productive source of new trainees in most programs.

3. Ethnic cleavages were difficult to bridge in many programs. For this reason, some programs turned to recruiting from only certain neighborhoods.

4. To successfully recruit and maintain trainees from severely disadvantaged backgrounds immediate and visible rewards for participants seem to be necessary.

   a. An <u>immediate</u> increase in status from participation should be perceived by trainees and their friends.

b. The trainee often wants a job, not more schooling.
He is more likely to remain in a program which offers him an
immediate job, not months or years of pre-employment schooling.

c. Monetary stipends seemed worthwhile in many U.S.
M.D.T.A. projects.

5. The readiness of a pre-vocational trainee for skill train-
ing is easily and effectively determined by continuous staff rating
of trainee literacy, attitudes, and physical appearance.

6. It was found in some programs that even after pre-
vocational training, problems of communication skills and dialect
precluded the wage employment of some severely disadvantaged youth.

7. In job-entry training programs for non-disadvantaged,
fairly well educated youth, the ranges of student characteristics
and job characteristics are extremely broad, and each combination
seems to require certain types of programs specifically designed.
Generalizations are difficult to make.

8. Traditional school-based vocational education projects
have not proven successful in helping severely disadvantaged youth.
Reasons given were excessive red tape, outdated machinery, instructors
who lacked capability or energy to relate to these youth, applicants
who could not pass entrance requirements, and basic education skills
of trainees which were inadequate for the learning of required skills.

Sponsors and Administration

1. Sponsors are government, especially Labor and Education
Ministries, private and public cooperations, unions, international
agencies (especially the International Labor Organization), private
foundations, church groups, and private citizens.

2. Employer-run programs are extremely numerous, especially
in continuous education programs and among larger firms. One fairly
common problem seems to be inadequate training competence on the
employer's part. This is often met by sending trainees to vocational
training classes in the formal school system or by providing training

consultation to the firm's instructors. Training of trainers is a common problem, especially when the trainers are foremen; more will be said about this in another section.

Assistance is provided to firms doing their own training in numerous ways. Among the most common are associations of trainers or inter-industry conferences and associations. A number of countries have government sponsored organizations which provide program development and instructor training assistance to firms.

The National Vocational Training Institute, Ghana, for example, provides manpower supply and demands estimates, skill level competence standards assistance development and assessment of company training programs, monitoring of apprentice training, development of trainers, and special programs of clerical training (both supervisory and secretarial).

3. Although most skill training done by employers is for their own employees, some is not. Mining corporations in Zambia, for example, and some other major corporations train persons for employment in other sectors of the community.

4. A form of sponsorship which seems to be mixed in effectiveness is that in which overall planning is done by a Board of Directors composed of all interested parties. While this increased psychological ownership of the training scheme, it also tends to delay decision making, and in some cases (especially when government bureaucracy is involved) impose restrictions on program innovations. In most programs surveyed, training schemes for disadvantaged youth and adults were administered by a single agency, as the Labor or Education Ministry of government, or a church group.

5. New programs for training disadvantaged youths in many instances met considerable resistance from established training and unemployment agencies, which apparently felt threatened and criticized by the new projects. When these new projects were dependent upon these pre-existing institutions for support, e.g., employment services, the pre-existing institutions were able to hold up requests for service by red tape and foot dragging. It is essential to consider

these inter-agency considerations when initiating new projects and attempt to enter into collaborative, non-threatening relationships.

6. It was suggested that program planning and administration be done by professional program administrators. In several U.S. M.D.T.A. projects, teachers and counselors were found not to be maximally effective administrators.

7. Funding of training is a problem for small firms. Also, large firms are sometimes reluctant to fund expensive training for their employees when there is good reason to believe that after training other firms will seek to employ their trainees. One answer to this problem is the establishment of a training fund to which a number of participating firms contribute on the basis of their respective numbers of employees. Those employers who train more employees in a year than they employ get rebates, while those who employ more than they train are assessed on a pro-rata basis.

8. The closer a sponsor is geographically and operationally to diverse resources the more effective the sponsor seems to be. Those agencies which have established linkages with other agencies and community groups are better able to draw on them for help. Established vocational rehabilitation agencies, for example, already have numerous contacts with employers, funding sources, schools and medical and legal agencies; these organizations have proven quite capable of running pre-vocational training for severely disadvantaged groups.

Mentors

1. A general finding seems to be that for dealing with disadvantaged youth, persons from the trainee's own community or background perform best. The ability to empathize and communicate with the youth ranks as an essential component of effective teaching.

2. A second general finding is that persons who have demonstrated their competence in industry such as craftsmen, industrial foremen, and teachers with work experience are to be preferred as instructors to persons whose background is solely in teaching.

3. Numerous projects have demonstrated that more mature or previously trained persons from the disadvantaged trainees' community could function very well in sub- or non-professional roles as counselors, assistant instructors, and employment generation specialists. This helps to decrease costs, adds new employment opportunities, and increases student and community ownership of the project.

4. A very important role is that of employment generation specialists whose job it is to find positions for trainees in the private industrial community, match trainee and job, and follow-up the trainee's progress after employment. This role's effective performance appears to be very important to successful attainment of the ultimate criterion of program effectiveness--successful trainee placement.

5. There is also a need for counselors in programs for disadvantaged youth. Counselors play various roles including personal and group counseling, helping trainees deal with outside agencies, legal, police, medical and financial organizations, and intervening in family situations.

Media

A common form of institutional training for disadvantaged youth throughout the world follows this sequence: (1) pre-vocational orientation; (2) general, basic skill training; (3) specialized training; (4) sometimes, on-the-job training; (5) release from school and (6), hopefully, entry into employment. Instruction generally occurs within a single building, with some classroom and some shop experience. There is no interaction with actual business or workers, with the exception of occasional visits to local industries. Programs take from six months to three years, with most being about one year in duration. Generally, a single program will specialize in a few skills. Output is relatively low, with from 10 to 60 trainees moving through a program in a single year; few programs were much larger than 100. Buildings generally are older, and costs are kept to a minimum. The most common training for out-of-school youth is for

basic skills in manufacturing operations, in both the modern sector and traditional crafts. Some training is carried on in the clerical, small service enterprise, food, travel and tourism, and homemaking areas.

Some examples of successful innovations in programs for pre-vocational training follow:

1. Work crews consisting of no more than ten trainees and a supervisor have been used to develop work habits in the U.S. Neighborhood Youth Corps. The supervisor is a neighborhood adult who has technical competence, positive attitudes towards youth, and the ability to develop rapport by being patient and firm. The youths rotate in the crews on different tasks; they work six hours a day. Work sites used are gas stations, repair shops, luncheonettes, woodworking shops. For six hours each week groups of five study literacy materials geared to their specific tasks. There are individual and group conseling sessions, visits to industry, talks by union and management representation, and return visits by youths "who have made it."

2. Dispersed work sites condition work attitudes and behaviors in the trainee. In these schemes the youth is placed in government or non-profit agency offices. He works alongside regular production workers for a half-day, and spends the other half in basic education classes, in counseling, and sometimes in testing. The trainee is paid by the project, not the organization in which he is placed; in this way the organization can be more tolerant of deviant behavior. Some programs have youths rotate to increasingly responsible positions. The classroom counselor is generally assigned about 20 youths, has a valid teaching certificate, and spends his non-class half of the day at the work sites counseling and intervening in social problems. This scheme was reported in projects in Detroit, New York City, and Charleston, West Virgina.

3. Contract services are set up by some projects to provide work experience. Neighborhood House in San Francisco, California, solicited and developed contracts for custodial, gardening, and other

services to households and private industry. The work experience
was coordinated with counseling and basic education lessons. The
business was run democratically, with trainees making many decisions.
Trainees were placed in this contract service situation for nine
weeks; if after that time they could not get jobs, they remained with
it until they did. The program had a high holding power for trainees,
and was self-supporting.

4. Work samples are parts of jobs, tasks involving actual job
material and equipment. They are generally administered in a two-
week period in a simulated industrial environment, and can be graded
according to problem solving complexity, type of occupation, etc.
The trainee is observed and evaluated by trained observers as he works
at these tasks. Work samples have been applied to pre-vocational
training in the New York City Y.M.C.A. project, the Philadelphia
Jewish Employment and Vocational Service, and Draper Correctional
Center. Benefits are said to be accurate evaluation of youth, train-
ing of youth, and orientation to basic tasks involved in several job
families.

5. Vestibule training is short-term real-work experience
which is designed to provide minimum work skills and job adjustment.
The training often takes place on plant premises and involves the
future employer in planning and/or implementation. Non-marketed
items may be produced, the trainees may practice on themselves, as in
hospital or food service training, or they may serve food in project
cafeterias.

6. Sheltered workshops, which traditionally have been used
to rehabilitate physically and mentally handicapped persons, have been
used as pre-vocational training sites for youths who were unable to
benefit from work crews, dispersed work sites, etc. Diagnosis of
weaknesses and strengths is integral to these project sites, as are
counseling and support by medical, legal, financial, and recreational
services. Work demands initially are very slight, involving simple
repetitive tasks, and gradually increase.

Job placement statistics are among the best in this type of scheme, and reasons given are that through time these agencies have established ties with employers, the agencies do extensive post-placement counseling, and youths are moved quickly into competitve employment (within 2 to 13 weeks).

One lesson that seems to apply, at least in the U.S., to almost all types of pre-vocational training for seriously disadvantaged youth is that comprehensive supportive services must be provided. Often the trainee has serious non-work problems which keep him from concentrating on the training. The training center should make available comprehensive health services--medical, dental, optometric, and psychiatric. It should also make available, with little red tape for the trainee, legal services, transportation, baby-sitting, loan money, and training allowances. Recreational facilities have proven desirable. In many instances intervention in the trainee's family life by the counselor has proven beneficial. Benefits gained from residential housing have varied, and no generalizations can yet be drawn.

Moving from programs involving attitude and motivation change to those dealing primarily with skill building, three types of schemes stand out:

1. <u>Coupled on-the-job training</u> (O.J.T.) appears to be the most promising type of program. An example of this type of program involved retail salesperson training in several Detroit, Michigan, department stores. The program coupled a minimum of 20 hours per week on-the-job training in retail stores with 10 hours per week classroom instruction at the project site. Eighty-five percent of trainees completed training and obtained employment in retail stores. It is suggested that the classroom phase was critical in upgrading basic communication and counting skills to minimum hiring levels.

The advantages of coupled OJT are said to be:

    a. youths view it as instant success; they have a job and a paycheck;

b.   training curricular are exactly matched to employer needs;

c.   the trainee is provided, upon graduation, with an advantageous position in competing for a job with that employer;

d.   the training can be individualized to the youth's needs.

Some desirable things which should be included in this type of program are:

a.   all parties involved, employer, job developer, and trainee, should have a voice in whether or not a particular trainee should be placed with a particular employer;

b.   follow-up counseling after training placement should be done;

c.   supportive services, counseling, and basic education should be done on the work site if possible;

d.   supervisors of these trainees should be rewarded by their employer;

e.   the employer should not have to pay for the training;

f.   the work experience should be bona fide, not merely "make work" assignment. However, this poses a problem in well-run, efficient organizations, which have all necessary functions already being done by regular employees. Furthermore, providing work space and equipment in a tightly run unit is difficult.

On the negative side, coupled OJT for disadvantaged youths meets resistance from many interested parties. Employers fear government intervention and red tape in their organizations, labor has at times feared the undermining of wage level from an increased supply of workers, and even project staff often would rather not have to deal with the complex administrative matters involved.

2.   The skill center is another highly effective scheme. This is a centralized facility, generally under public school administration, which provides counseling, work orientation, basic and remedial education, and institutional skill training in numerous occupations for a diverse group of trainees. Job development placement and follow-up are done in an individualized fashion. Instructors are generally drawn from craftsmen, rather than teacher, groups. Economy of operation, low per trainee costs, and flexibility in meeting trainee and market needs are among advantages cited.

The Syracuse Manpower Training Center, U.S.A., is an example
of a successful skill center. It is located in a major work area of
the city, a close walk from the trainee's neighborhood. The emphasis
inside the center is on simulating a work environment; the trainees
are treated as workers, floor plans are those of typical plants,
trainees are paid allowances which are treated as wages. Many skill
training opportunities related to the field of electrical appliance
repair are provided; goods produced are not marketed, however.
Initially no basic education was provided; however, this was later
found to be necessary. Also, extensive counseling, both individual
and group, was done. Enrollment was for up to 26 weeks. The drop-out
rate was 50%, which was good for this group, of whom most had criminal
records. Of those who completed training, almost all were successfully
placed.

3. An innovation becoming more common is <u>multi-occupational</u>
training. In this, the trainee receives broad exposure to several
occupations in the first weeks of training and then selects intensive
training in specific skills. Lateral transfer from one skill area
to another is permitted. For example, in one program, training was
provided for a job as a stenographer, typist, file clerk, mimeograph
operator, offset operator, mail handler, addressograph and graphotype
operator, receptionist and general office work.

These three above approaches are "person-oriented" rather than
"job-market-oriented." Experience seems to indicate the person-
oriented approach works better for disadvantaged youth.

In all these schemes, <u>one overriding lesson seems to be to</u>
<u>get the severely disadvantaged youth into employment which he sees as</u>
<u>productive as quickly as possible, and then follow-up with additional</u>
<u>training and counseling</u>. This does not seem as critical in those pro-
grams which select the "best" of the out-of-school unemployed youth
for training. There probably is a basic difference in the psychological
~ .u structure and ability to delay gratification in these two groups
of youth.

Continuing Vocational Training

The field of continuing vocational training for employed individuals has been heavily investigated; consequently, there is no need for an extended comment within this report. Numerous publications outline appropriate practice. One case description is provided here to give the reader an idea of this type of training.

Title: The Oldsmobile Apprentice Training Program, Lansing, Michigan.

Historical Background: Oldsmobile, a division of General Motors Corporation, is a major automobile producer. Its headquarters, 50 percent of assembly operators and 100 percent of its main parts manufacturing, are in Lansing. There are 13,000 blue collar workers at Lansing plants. After World War II a shortage of trained journeymen and craftsmen, especially welders, led to the establishment of the program. Oldsmobile has continued to run its own training programs because of its high trainee throughput (22/year) and because it can better maintain the quality and relevance of the training than could an outside contractor.

Mission: To train employees and some non-employees as journeymen in crafts useful to Oldsmobile operations.

Students: Employees aged 17-44 and non-employees aged 17-26 may enroll. There is an implicit union-management agreement that for every non-employee enrolled, two employees must be admitted; the non-employee is automatically hired upon admission. Other criteria and processes for admission are: physical examination, selection tests, high school graduation, prior experience, and personal interview. Applicants are admitted twice per year. Enrollment is now open to both men and women. Since 1946, 700 trainees have completed the program. While the drop-out rate is not very high, reasons for dropout are pressure of classroom work, loss of shift preference, and too much overtime required upon graduation.

Sponsor: The firm provides all support needed for the program; actual amount needed was not reported, but it is assumed to be substantial. The trainee furthermore receives full wages and benefits for time spent in training, and is provided with a $300 allowance for tools and books.

The program is planned and monitored at a General Motors corporate level by a six member board consisting of three union representatives and three management representatives. Day-to-day administration is strictly an internal matter and not subject to corporate or union policies.

Staff: Six employees, with an average of 25 years speciality experience, comprise the teaching staff. A balance is maintained between college graduates and journeymen; all have state government trade teaching certificates.

Media and Contact: The total program takes four years to complete.
It is structured to require four hours training and four hours regular
production work at the employee's regular job per day; this allows the
trainee to continue to earn full wage and benefits while upgrading
his competence in any of 21 skilled trades. The program combines
training (about 7,000 hours) and classroom instruction (600 hours).

Source: Benson, E., Tiapula, F., Unpublished paper, Non-Formal Educa-
tion Study Team, Michigan State University, 1972.

The Training of Supervisors as On-the-Job Instructors

One of the important lessons for Pre-Vocational and Job-
Entry Training is that skilled craftsmen should be used as trainers
rather than professional teachers. This necessitates the provision
of instructor training to the craftsman. On-the-job training
requires that large numbers of supervisors become proficient trainers
with instructing abilities not necessarily called for in the regular
performance of their duties. The demand is for cheap, large-scale,
quick, atheoretical training of craftsmen and supervisors.

Job Instructor Training provides that training. Job Instructor
Training (J.I.T.) has enjoyed unparalleled popularity throughout most
of the world. After its initial development in the U.S. during the
two World Wars, it spread through international technical assistance
programs to Europe and many less developed nations. The procedure
used in J.I.T. is to show a group of about ten supervisors how to
analyze a task, how to demonstrate it to a worker, how to determine a
worker's state of task knowledge, and how to verify that the worker
has properly learned the task. Each supervisor in turn plays the part
of trainer and trainee. The technique uses many learning principles,
and is primarily designed for rapid and economical motor skill train-
ing of large numbers of trainees. The writer considers this training
method to have so much impact and importance that a complete case
history and description is provided as a Working Paper in the larger
Project Report.

<u>Managerial and Entrepreneurial Development</u>
<u>Small Business Training</u>

If small industry is to become a significant development in the countries of Asia, Latin America, and African, then it must increase its productivity. One factor which can do much to increase this productivity is the development of entrepreneurs and managers.

Two case descriptions of small industry development are provided here as examples of this type of activity.

<u>Title</u>: The Management Training and Advisory Center, Kampala, Uganda.

<u>Mission</u>: To offer management education to Ugandans at all levels of their organization, and to build up an internal training cadre. This is to be done while taking into account the process of Africanization and local conditions.

<u>Students</u>: Candidates are sponsored; they are owners, managers, or entrepreneurs. The center is open to women. Selection is based on interview. Actual student characteristics vary depending on the course. Most students range in age from 20-45; experience ranges from 0 to 20 years service.

<u>Sponsor</u>: United Nations Development Program; the International Labor Office is the Executing Agency. Some cost, in the form of tuition, is borne by the company sponsoring the student. The National Trading Corporation underwrites a portion of the cost to the students enrolled in a profitability course for wholesalers and retailers.

<u>Staff</u>: ILO team of experts and Ugandan counterparts. Professors from Harvard Offer the Motivation Achievement Course. Eventually all instructors will be Ugandan.

<u>Media and Content</u>: Four courses are reported:

1. Management for Profit is a program which seeks to upgrade the quality of work of African wholesalers and progressive traders, to increase profitability and raise the standards of business practices. It is a general management course which teaches financial management, banking, functions and principles of management, office organization, accounting, marketing, and human relations principles. The lecture method accounts for about 90% of the course, while case method accounts for about 10%. After the course, participants carry out practical projects under the guidance of course instructors.

2. Motivation Achievement Program is an experimental program which attempts to increase participant's desire to achieve and develop personal skills. It is a ten-day residential program for leaders and entrepreneurs; younger persons are university graduates.

Teaching materials use varied techniques. The program is under the direction of Professor McClelland of Harvard. This is an interesting concept applied to entrepreneur development. However, there are logical and empirical contradictions in the underlying rationale and empirical studies done to data on this type of training. If used, it should be done only with evaluation methodology included.

3. Transport and Automotive Management Program is a course to improve managerial practice in transport businesses. Its curriculum is vehicle operating costs, maintenance, workshop layout, diagnostic servicing, job cards, insurance, and simple accounting. It is 50% supported by private industry and is a one-week residential program.

4. Management Training Course for Ugandans going into the manufacturing business, teachings financing a new business, how to operate alone, in partnership, or in a company, slection and training of personnel, customers, accounting, product design, and plant layout. Teaching method is 80% lecture, 15% workshop, and 5% case method. There is follow-up after it to aid the graduate. Thirty class hours are spread over a three week period.

Source: McNulty, Nancy G., Training Managers: The International Guides, New York, Harper, 1969.

The Small Scale Industries Development Association, India, set up in 1954.

Mission: To assist in and coordinate the work of state governments in developing small industries.

Sponsor: Central Government

Mentors: Varied and extensive

Students: Small industry owners, managers, technicians and craftsmen.

Media and Content: The program has two major components:

1. Industrial Extensive Service advised on improved techniques and use of modern machinery, and carries out research on proper use of raw materials, improved design of machinery, etc. A Service Institute is located in each state. There are 6 branch institutes, 65 extension centers, 3 production centers, and 2 training centers. An extremely large volume of work is undertaken.

   Training programs for managers vary as the needs of the student vary. Three levels of courses are provided: General Management, Functional Management, and finally, intensive technique oriented courses. Regular training is also provided to artisans.

2. Management Consultancy Service provides a service to deal with specific problems and also does integrated plant studies.

Source: Ram K. Vepa: Small Industry in the 70's.

Lessons

1. The small industry owner or manager has need for both general and functional training and development. To provide this the most efficient structuring seems to be one which services all his needs under one organizational umbrella. A consultancy and advisory service which is comprehensive and which establishes long-term relationships with the small firm seems best. It would be desirable, at least in the earlier stages of the small firm's development, to provide such services at a nominal charge or without charge.

2. The need is more for large-scale, self-funded, decentralized extension-type consultancy services than there is for institutions which offer a single training course.

3. A motivation-building course is an important innovation for increasing the number of persons interested in becoming entrepreneurs, but it is still highly experimental, and should be treated as such.

The Development of Managers for Larger Business and for Government Service

The executive shortage which has been experienced around the world will last for at least the next decade. Unfortunately, while management education is big business in itself, not much is known about what makes a good manager or even about what tasks managers perform. This leaves the person looking for guidance as to what type of management development to support in something of a bind. If he asks a researcher, "What kind of management development is best?" the researcher quite often will say, "best for what?" and then add that there is little empirical support to advocating any one technique over another.

Much of the empirical evidence concerning the effects of management training has been examined by Miner (1965). His general conclusion can be interpreted as follows:

1. in terms of volume, much research has been done;

2. almost all these studies offer positive evidence for change, although there is little evidence for long-term retention of such changes;

3. there is enough consistency among the results to offer
    substantial proof of the ability of development programs
    to bring about certain types of changes--the acquisition
    of human relations attitudes, problem-solving skills, and
    technical knowledge.

Management development is too complex a field to provide any
simple answers or to assert general superiority of one technique or
content over another in most instances.

An analysis of management education activities indicates that
the education concept which developed in the U.S. was translated and
modified for adoption in many areas of the world. There is remarkable
similarity among project descriptions in various countries. The pro-
ductivity center concept recently institutionalized by the I.L.O. is
a good example of the type of training done. This is not to imply
that empirical research will eventually conclude that this scheme
is one of the better ones available; however, the large-scale adoption
of these predominantly Western-originated courses and methods indicates
that there is believed to be some good in them. Generally participants
indicate that they got something out of them and that the experience
was broadening.

Training which produces specific knowledge and skill inputs,
especially at basic management levels, seems worthwhile. For organiza-
tions which are functioning at lower levels of effectiveness, this
seems true. The teaching of such subjects as accounting, production
planning and scheduling would seem to have more immediate impact upon
productivity than courses in human relations, personal growth, or
liberal arts. The opposite may be true for top-flight organizations.

The following are descriptions of two forms of management
development which seem worthwhile.

The Hong Kong Productivity Center

Mission: To stimulate interest in, to assist the study of, and
collect and disseminate information regarding productivity. To con-
duct training courses, and provide consultancy services and technical
assistance for persons or organizations engaged in industry.

Sponsors: The Hong Kong Productivity Center was established in 1967 by the Hong Kong Productivity Council, which is an official body of the Hong Kong government. The government is a member of the Asian Productivity Council. In an initial period, the Center spent $14.1 million and earned $2.7 million, giving a net cost to government of $11.4 million.

Locally, the Center maintained liaison with the Hong Kong government, University of Hong Kong, Chinese University of Hong Kong, Federation of Hong Kong Industries, Hong Kong Management Association, Chinese Manufacturers Association, Hong Kong General Chamber of Commerce, and the Hong Kong Technical College.

Internationally, the Center maintained liaison with the Asian Productivity Organization, ECAFE, ILO, OECD, UNDP, UNIDO, US AID, the Asia Foundation, and the Federation for International Documentation.

Staff: At present there are 138 staff members, with a wide range of training and skills.

Students: Analysis of participants during the first five-year period revealed the following characteristics:

1. 35% of all students were from large-scale industries (more than 500 employees)
   24% of all students were from medium-scale industries
   21% of all students were from small-scale industries

2. More than half of all participants were from manufacturing industry.

3. Age: 40% were between 21-30
          25% were between 31-40
          13% were over 40

4. Education:
          37% had secondary education
          17% had some post-secondary education
          21% had completed university education

5. Occupation:
          25% were managers
          16% were technicians and eingineers
          20% were supervisory staff
           9% were clerical staff

None of the above percentages add up to 100% due to incomplete data and miscellaneous categories.

Content and media:

During the first five-year period the Center provided training courses to over 7,000 persons, undertook 126 industrial consultancy and technology projects, organized 9 overseas study missions, built up a library of 2,800 books on management and technology, and disseminated considerable information.

The Center provided in-class training in accounting, personnel, marketing, supervision, material management, production management. It also provided courses in chemical and mechanical engineering, low cost automation, special product technology and electronic data processing for various types of students.

Consultancy services were offered, with most projects being in the area of general management and production management.

The Technical Assistance Section provided services in product development, general process engineering, and low cost automation services.

A Small Industry Advisory Section is getting underway to provide this sector with specialized help.

Past participant groups are sponsored by the Center to maintain contact with past participants, to provide them with information, and to obtain feedback on the appropriateness of the Center's activities.

Source: The Hong Kong Productivity Council, Annual Report, 1971-72.

The American Management Association, U.S.A.

Mission: To exchange information and promote scientific research into basic and advanced principles of management.

Sponsor: This is a self-supporting body. It derives about 75% of its income from conferences, and the remaining 25% from member fees.

Staff: Full-time employees in 1966 were about 500, professional program staff were about 32, and volunteer teachers were about 4,500.

Students: Members and non-members of the association. All were managers or were being trained for managerial functions. 53,000 persons attended conferences in 1966.

Content: General management, functional management, and highly specialized topics within these areas.

Media: Primarily the conference, wherein a group of topic experts volunteer to instruct the participants. Programs last from one-half day to one week or more. The Association also publishes its own books and periodicals on topics of interest to its members.

Source: Oleon, S.U. Changing Patterns in Continuing Education for Business, Center for the Study of the Liberal Education for Adults, Boston University, 1967.

Both forms of management development described have a number of important characteristics which are listed by Havelock (1971) as important for diffusion or information.

Both are immense undertakings. They are highly structured. Both maintain elaborate linkages with users and other resources; the

AMA does so both formally and informally, while the Hong Kong Pro-
ductivity Center primarily does so formally. Both are open to new
information, are closely linked to the scientific research community
and the practitioner community. Both command a tremendous amount of
power and monetary investment, although the AMA, which draws on
voluntary teachers paid in recognition, probably costs less to run on
a per-trainee basis.

The messages they give are similar and tested in practice.
The content is coherent and relevant to the users; the users request
the information because they have a need for it. Both rely heavily
upon classroom-like instruction; conference discussions, lectures, and
case studies predominate. This similar to what trainees had been
exposed to before.

Summary and Conclusion for Non-Formal Education

Vocational skill training for unemployed out-of-school youth
and management development for both small- and large-scale industries
and government bodies have a surprising number of similarities and
striking contrasts. Cited cases have been examined in terms of using
mission, sponsor, mentor, student, media, content, and using Havelock's
1971 classification scheme for variables important to diffusion and
utilization.

Sponsors of effective schemes generally: (1) had many linkages
to other resource systems; (2) systematically planned and coordinated
their efforts; (3) were flexible and able to be influenced; (4) had the
capacity to invest diverse resources; i.e., had access to large amounts
of money and information, and had past experience in providing help to
the target population or ones similar to it; (5) had ready access to
other resources and the target population; (6) were only one of a
number of sponsors in the area trying to improve the target population's
performance; and (7) were rewarded for their effots in both recognition
and further calls for help.

The student target populations were vastly different. The
out-of-school unemployed youth had none of the factor characteristics

which Havelock found important for adoption of new information, while the managerial population had all the factors. This does not give one confidence in predicting a high success rate in upgrading disadvantaged youth.

Following are the factors; the reader will find it easy to supply the contrast between the two populations.

1. Linkage, collaboration, two-way interaction with other students and resource systems.

2. Structure: integrated social organization of student; systematic problem solving effort.

3. Openness: actively seeking to use outside resources, to be helped.

4. Capacity: intelligence, self-confidence, amount of time, energy, capital to invest in changing; skill and sophistication.

5. Reward: past experience of reward for effort in learning skills and information; expected return on effort invested in this educational experience.

6. Proximity: closeness and ready access to other students and resources; similarity to other students and the resource system.

7. Synergy: the relative number and diversity of different users, which accelerates the adoption by the whole target population.

Content in effective schemes was relevant and rewarding to the student. The disadvantaged youths wanted jobs, not more training; the managers wished to know how to better their organizations. Content had a better chance of acceptance when it was similar to what the student had learned and been rewarded for in the past. The disadvantaged youth had the odds against him on this variable.

The medium varied according to mission, content, and student population. For both populations, the medium provided two-way interaction, it was timed to fit the student's needs, it was flexible, it gave reward and feedback to the student, and was in most cases familiar to the student. For disadvantaged youth, the earlier suggestions--dispersed work sites, contract services, vocational rehabilitation centers, and later coupled on-the-job training or skill centers fit these criteria. For the manager population, class instruction and consultancy services both can be arranged to fit the requirements.

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CHAPTER IX

SWORDS AND PLOWSHARES: A STUDY OF THE
USES OF THE ARMED FORCES IN NATIONAL
DEVELOPMENT WITH EMPHASIS ON
EDUCATIONAL PROGRAMS

By

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Overview

The armed forces of a country can serve to support national
development in several ways. One model is to support development by
using its trained personnel, equipment, and other resources to con-
struct or improve facilities necessary for national development such
as harbors, roads, railroads, schools, hospitals, telephones, radios,
and telegraph systems, etc.

Such construction activities may be accomplished through the
exclusive use of military personnel or through a cooperative effort
of soldiers and civilians. Under such a cooperative plan a bonus is
accrued because the civilian participants may learn new skills which
can be applied to further development and vice versa. Another model
for military/civilian construction activities might employ military
technicians as advisors with the civilians actually doing the work.

Another form of military support for national development
might involve the use of professional military personnel such as
physicians and dentists to improve the state of health and/or well
being in the civilian community. In this case, they might actually do
the work or might advise on sanitation, dental care, nutrition,

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prevention of disease, or any number of procedures of benefit to the civilian populace. This may also be a cooperative effort with designated civilians being trained on-the-job or through formal classroom instruction so they might continue to make further contributions to the welfare of the civilian community after the military personnel departs.

Another significant but less direct contribution to national development that military forces can make involves the training and education of members of the armed forces. Since the majority of the vocational skills needed within the military forces are identical to those needed in a modern society, military veterans are able to contribute to national development by applying their skills as civilians upon release from the military service.

Another important contribution of the armed forces is in the area of general educational development. Every armed force provides some sort of in-house and/or contractual educational program for its members. This ranges from literacy training to education at the professional and Ph.D. levels. This educational development is frequently accomplished for self-serving reasons: the need to raise educational levels in order to perform more effectively as soldiers; the need to maintain a higher level of morale; or the need to induce men to enlist in the armed forces. Regardless of the intent, however, the majority of these men leave the military service after a short period and their educational improvement while in the armed forces should contribute to overall national development, as well as enhancing their individual development and fulfillment.

Rationale and Purpose of the Study

And He shall judge among nations, and shall rebuke many people;
and they shall beat their swords into plowshares, and their
spears into pruninghooks: nations shall not lift up sword
agains nation, neither shall they learn war anymore (Isaiah 2:4).

It is rather obvious that the above biblical prophecy has not materialized as Edward B. Glick has so succinctly stated: " The

essential fact about armies is that they exist. They will not, and, in most cases, should not go away."[1] He had earlier stated that:

> Prestige is a very necessary ingredient of natio n-
> building and national self-confidence, and armies are
> apparently a very acceptable--indeed, almost indispensable--
> ingredient of prestige. One may not like this psychological
> truth. However, it is a truth and it does no good to ignore
> it.[2]

Given the apparent fact that nation states will continue to maintain armed forces for purposes of prestige and for defense against real or imagined threats, either external or internal, and that this will constitute a considerable economic drain, particularly for developing countries, it seems logical to attempt to develop policies that will allow these military forces to make a more positive contribution to national development. The concept of armed forces as a national resource, with all of its expertise in organization, management, specialized skills, manpower, facilities, materials and equipment, and its distinctive and distinguished organizational per-sonality, is particularly full of possibilities for utility for the LDC's. In fact, it is now a common practice in the LDC's and in the more developed countries to use the military as a positive force and instrument for national development. For purposes of the study on non-formal education, we are interested in the armed forces as a place for someone to get educational experience and in the possibility of the system to be a part of a total delivery system for education in a given country.

The armed forces as a department represents one governmental functionary which can be drafted into the so-called "total national teaching-learning system," defined as the sum of national effort to promote, enhance, and take into effect the citizen's acquisition of knowledge, technology, skills, and personal development which con-tribute to his or her fulfillment as an individual. We assume that, collectively, the development of a citizen will logically result in the total development of a nation.

The purpose of this study is to examine the past and current practices of the armed forces, in the developed as well as in the lesser developed countries, that can be considered as contributing to national development. Emphasis will be given to the uses of the military during peace time, in its civic action and educational activities. We hope to identify significant lessons related to the use of the military as sponsors (defined here as an institution which initiates, supports, and governs the teaching-learning enterprise) of NFE activities for its own personnel as well as for others.

From the beginning of this study we have assumed that there is a substantial degree of teaching and learning taking place within the armed forces, and as a direct result of relationships among members of the armed forces and the general public. This activity of teaching and learning we shall call "non-formal education."[3]

Plans of the Report

The succeeding body of the report consists of: (a) a brief historical sketch of the use of military forces in national socio-economic development from ancient times to the present, and (b) a discussion of the "civic action" and educational activities that the present armed forces are engaged in.

An appendix section provides specific case studies that illustrate (a) "military civic action" in one country, and (b) educational programs within the military.

An Examination of the Past and Present Role of Various Armed Forces in National Development

An Historical Overview

The high cost of maintaining armed forces and keeping them occupied in productive activities is not a new problem. The concurrent employment of soldiers as builders and defenders is well illustrated by the following biblical passage:

And they conspired all of them together to come to fight
against Jerusalem, and to do it an injury.

And it came to pass from that day forth, that one half of
my young men wrought at the work, while the other half of
them were holding the spears, the shields, and the bows,
and the coats of mail . . . .

And the builders had every one his sword fastened around his
loins while they were building . . .[4]

In other parts of the ancient world similar activities were
also taking place. The Nubians in the army of Egypt constructed many
of the country's time-honored monuments. The water-supply aqueducts
in the vicinity of Rome were built by the Etruscan soldiers. It was
the army of the Incas that constructed the roads, irrigation system,
and colonies that were of advanced design for that time in history.
Credit is given to Alexander the Great for creating the first
engineering and medical units within an armed force.[5]

Construction activities were a common practice with the
Roman legions and their ranks included farmers, carpenters, black-
smiths, engineers, and builders of all kinds who after fighting to
conquer, built and colonized.[6]

In Roman England, soldiers built hundreds of miles of highways,
and many of the roads are still in daily use today. Leonard Cottrell,
in describing the roads in The Great Invasion, wrote that

These roads, even more than the legionary stations and the
longely upland forts are Rome's most enduring monument to the
Great Invasion.[7]

It was Major James Rennel of the Bengal Engineers who began
a survey of India and after over ten years of work produced a famous
map that gained for him the title of "Father of Indian Geography."
Some time later another military officer, Colonel George Everest,
for whom Mount Everest was named, surveyed all of India, and in the
process pioneered in triangulation methods of measurement. The Corps
of Royal Engineers, working with their civilian counterparts, built
the water, communications, transportation systems, and many other
public works in India. The British also engaged in similar activities
in Egypt, the Sudan, and Palestine.[8]

Captain C. W. Wilson surveyed most of Palestine in the mid-
nineteenth century and explored in Jerusalem near the Temple. He
later proved conclusively that the Dead Sea was exactly 1292 feet
below sea level.[9]

Lieutenant Charles Waren, of the Royal Engineers, explored
the Holy City which led Sir Walter Besant to write:

> It is certain that nothing will ever be done in the future
> to compare with what was done by Waren. It was he who
> restored the ancient city to the world; he it was who stripped
> the rubbish from the rocks, and showed the glorious Temple
> standing within its walls; 1,000 feet long and 200 feet high,
> of mighty masonry; he who opened the secret passages, the
> ancient aqueducts, the bridge connecting the temple and the
> town. Whatever else may be done in the future, his name
> will always be associated with the Holy City which he first
> recovered.[10]

In the Sudan the first railroads, docks, communication lines,
canals, water systems, and roads were the work of the Royal Engineers
or were completed under their supervision. The exploration, surveying,
and clearing of large tracts of land was also accomplished through
their efforts.[11]

Early in the nineteenth century military normal schools were
operated in Mexico that taught commissioned and non-commissioned
officers how to teach others. In 1848 eighteen military colonies
were established in Mexico to fight Indians and to protect southern
settlers. Due to the efforts of the armed forces under the military
dictatorship of Porfirio Diaz, the period of 1874 to 1910 in Mexico
has been described as a "great era of building and modernization"
without which the subsequent liberalizing Mexican Revolution of 1910
would not have succeeded.[12]

Brazil operated military and naval academies providing eight-
year courses prior to 1814. During the nineteenth century the
Brazilian Military Academy provided most of the country's civil
engineers and continued to perform this role well into the twentieth
century. During this period most of the formal exploration and
scientific observation of this huge country was performed by the
Brazilian Army. The most famous of these explorers was General

Candido Rondon who went into the interior of Brazil in the latter part of the nineteenth century, befriended the Indians, and during a period of forty years became an expert in the ethnology, geography, flora, and fauna of Brazil.[13]

The Venezuelan Armed Forces established the Fuerzas Armadas de Cooperacion (FAC) in 1937, and it is still active today. FAC is organizationally comparable to the army combat services and has engaged in conservation, improvement of communications, mineral production, jail maintenance, frontier customs collection, operation of meterological stations, illiteracy campaigns, and other rural services.[14]

The military academies that were organized and/or modernized during the latter part of the nineteenth and into the early twentieth century were generally the only Latin American institutions that taught science and technical subjects, and frequently students entered them only to learn skills that they could later apply as civilians.[15]

The military academies of Latin America after 1850 were more often than not the vanguards of scientific and technical education and many of the military dictators of that period were trained in these academies. Although admittedly not among the great democratizers, one must agree that these dictators were among the great modernizers of Latin America.[16]

In this regard Glick raises an interesting issue:

> To be sure, modernizing society and technology do not by themselves bring democracy; indeed they can retard it by depersonalizing the individual and adding to the suppressive tools of totalitarians like Hitler. But on the other hand, can we really have social and economic development (a necessary precursor and concomitant of contemporary democracy) without modernizing science and technology.[17]

In the Spanish Army, troops are allowed to go home during the harvest to assist in this economically important activity. Spanish military airplane mechanics and pilots are also loaned to civilian airlines and the aircraft industries. Spanish Army engineers have accomplished extensive construction in the Pyrennees and in

conjunction with civilian agencies, have built roads, bridges, houses,
schools, hospitals, etc. The Spanish armed forces also operate
specialized research facilities such as the Central Veterinary
Laboratory and the Pharmacy Institute. Another important aspect of
military national development activities is the operation of literacy
schools for military personnel. Literacy classes are mandatory for
all illiterates and the government claims that 90% of those who pass
through the courses can read and write.[18]

The Communist Chinese have also used developmental activities
extensively, both before and after the conquest of the mainland. Mao
Tse-tung has written the "Three Rules and the Eight Remarks" as a
statement of policy for his troops in dealing with civilians.[19]

This code of behavior was used by his Eighth Route Army
during the conquest and was designed to win support, or at least
acceptance, without terror and with minimum force.

Mao also noted that "There is no profound difference between
the farmer and the soldier." This was apparently used to justify the
use of soldiers to harvest crops, work in reclamation, build roads
and railroads, and raise their own vegetables, poultry, and pork.
In 1961 the army contributed 54,000 pigs bred by the military, and in
1964 army operated farms accounted for 20% of the total grain output
in one province. Educational activities were also provided for
Chinese soldiers with the following division of study: 60% pure
military training, 25% political education, and the remaining 15% of
training time was devoted to basic mathematics and reading.[20]

Soviet military forces are used on a large scale in farming
and construction. Their military engineers are used in a manner
similar to the Army Corps of Engineers in the United States. In the
spring of 1964, as an example, the Soviet military engineers were
called upon to save a city that was threatened by flood due to the
collapse of a mountain into the Zervshan River.[21]

During a recent year in England the offices of the Army's
Meterological Service answered approximately 750,000 inquiries from
industry, commerce, and the general public. The British military

forces also provide extensive disaster assistance, and the Army
Apprentices Schools provided schooling up to the City and Guilds
Examinations level.[22]

The United States Experience

The Military as an Instrument
of National Development

The armed forces of the United States have played a significant
role in national development and these activities will now be
examined.

As early as 1820 Zachary Taylor said in a letter to the Army
Quartermaster General: "The ax, pick, saw, and trowel have become
more the implement of the American soldier than the cannon, musket,
or sword." It is also well known that the Lewis and Clark Expedition,
which explored the Louisiana Purchase was headed by Meriweather Lewis
and William Clark who were both commissioned officers of the army.
The expedition traveled under military orders and thirteen regular
army enlisted men were in the party. It is therefore possible to say
that the army blazed the "first clearly marked trail from the
Mississippi to the Pacific." A few years later army Lieutenant
Zebulon Pike with a team of army men explored other areas west of the
Mississippi and north of the Missouri River. The group gathered data
about the Indiana, the topography, and suitable military sites.[28]

Another army officer explored west of the Rocky mountains
during the period of 1832-1834 and gave Americans the first reasonably
accurate map of that area. Many civilian cartographers relied almost
completely upon the work of army expeditions to provide information
for the early pioneers that later moved across the western plains
of the country.[24]

With regard to railroads, roads, and other public works, the
United States Army Corps of Engineers has had responsibility for
internal navigation and flood control since 1816. In 1825 the Army
engineers built the "Chicago Road" across southern Michigan and have
also been involved well into the twentieth century in building the

road, rail, and communications systems in Alaska. Between the years 1818 and 1860 army officers were frequently loaned to state governments and to private railroad companies. As an example, in 1827 the Baltimore and Ohio Railroad asked for technical assistance from the army and twelve army engineers worked on the initial construction of that railroad. Other army engineers made surveys on five other railroad lines during the same period. By 1835 at least fifteen railroads in the United States were receiving some type of aid from the Army Engineers. In 1853 the Congress appropriated $150,000 to the War Department for Pacific area railroad surveys. In 1861 when General McClellan was recalled to command the Union Armies he was working for the Illinois Central Railroad. During the Civil War General Grenville Dodge was withdrawn from Grant's Army to supervise the construction of one of the branches of the Union Pacific Railroad.[25]

The history of the Army Engineers would fill several volumes and include such items as the department of the Great Lakes navigation system and the construction or supervision of construction of the following facilities in the Washington, D.C. area: The Washington Aqueduct, the Washington Monument, the old State Department Building, War Department, Navy, and the Post Office buildings, and the Pentagon.[26]

After trying and being disappointed with civilian engineers in Panama, President Theodore Roosevelt chose Major General Goethals and the Corps of Engineers to complete the Panama Canal--an engineering marvel for that time. In 1956 when someone was needed to clear the Suez Canal the United Nations turned to General Wheeler, a former Chief of the Army Corps of Engineers.[27]

Army posts on the western frontier provided security as well as acting as a stimulus in the early development of that area. They made a direct contribution by doing the work that pioneer families were unable, unwilling, or unavailable to do. The army also provided transportation and communication which was necessary to facilitate and speed civilian settlement. These forces also stimulated the economy indirectly by purchase of goods and services from the civilian community. The contribution of the army was not limited, however, to

the economic development of the developing United States, it also contributed educationally, scientifically, culturally, and in the area of general welfare.[28]

The vast educational activities of the present day armed forces are simply an extension of a long history. West Point was the first American school of technology and one of the earliest in the English-speaking world. It was also, incidentally, the first school in America to use chalk and blackboard in the classroom.[29] The military has continued their pre-eminence in the design and use of classroom teaching aids to this day. The standard civil engineering textbook in the mid-nineteenth century was one by Dennis Hart Mahan, an officer who headed the Military Academy's engineering department from 1830 to 1871. Academy graduates held the first engineering chairs at civilian universities, for example: Rensalaer Polytechnic Institute in 1824, Harvard in 1849, and Yale in 1852.[30]

The reputation of the academy in engineering was such that Henry Adams wrote in his History of the United States that American engineering "owed its efficiency and almost its existence to the military school at West Point." President Francis Wayland of Brown University said in 1850 that the military academy did more "to build up the system of internal improvements in the United States than all the colleges combined."[31]

Soldiers in the Northwest Territory often served as teachers, and the schools at military posts were usually superior to those in the surrounding civilian communities. It was not uncommon for civilians to send their children to attend the schools operated by the army.[32]

The military forces brought into the Northwest the first good music, the first theater, and the first decent libraries. It has been said that army officers "conditioned the intellectual climate of the frontier." Military personnel were the first Indian agents, the first mail carriers, and the first physicians to provide medical care to both white civilians and Indians. They were also the first innkeepers on the western frontier since custom demanded that military commanders

offer their hospitality to civilian travelers. The military garrison's guardhouse was frequently the first county jail for frontier law-breakers.[33]

There are many today that would claim that the relationship between the military forces, industry, and the universities is a recent phenomenon but a very brief look at history should dispell this myth. Whether this is good or bad is another question but the fact that the practice has its roots deeply implanted in the history of the country can be rather clearly established.[34]

In the field of medicine the army also made significant contributions. An army surgeon wrote the first American textbook in psychiatry. Another army surgeon, Doctor William Beaumont, wrote <u>Experiments and Observations on the Gastric Juice and the Physiology of Digestion</u> and gained the reputation of being America's pioneer physiologist. Doctor Benjamin Walterhouse introduced smallpox vaccination into the United States Army in 1800 and this soon spread to the civilian sector. The achievements of army surgeons Walter Reed and William C. Gorgas in typhoid and yellow fever research are certainly well known.[35]

It is not generally known, however, that the army was responsible for such firsts as the chlorination of water, the discovery of the cause and cure of beriberi, automatic bacteria counting, the metabolic studies that led to Metrecal-type diets, and the development of anthrax vaccine. The military also led to synthetic rubber research, designed the first masks which are used in industry to protect against foul and toxic vapors, and discovered a means of controlling the boll weavil. The armed forces have also done extensive work in irradiation and other methods of food processing and preservation. The military might also be credited with setting the stage for mass production techniques by supporting Eli Whitney in the manufacture of rifles with interchangeable parts during the War of 1812.[36]

Today, the air force and navy both have special squadrons that work with the Commerce Department's Weather Bureau in hurricane hunting and other weather forecasting activities. The first weather

forecasters were physicians who took observations twice a day. Later
the army issued them a set of instructions and eventually men were
especially trained as weather forecasters. Today, most meteorologists
employed in civilian agencies initially received their training in
the armed forces.[37]

Both the Navy and Coast Guard have also made important con-
tributions. In the beginning the Navy supplied our western outposts.
Some time later officers like Admiral Byrd and Peary made significant
contributions to American polar exploration efforts. Commander
Matthew Maury produced the first modern wind and current charts of
the Atlantic, and his Physical Geography of the Sea (1855) was
possibly the first classic of modern oceanography.[38]

Interest and support of polar exploration and oceanography has
continued into the present period. The navy provided support for the
United Nations International Geophysical Year with men, ships, and
supplies. It later supported the Arctic Research Laboratory Ice
Station.[39]

In the summer of 1965 Lieutenant Commander Scott Carpenter and
other navy divers and scientists lived under the ocean for several
weeks in a steel cylinder lowered into the ocean to determine if man
can work and live under water for extensive periods. Commander
Carpenter, of course, later participated in the space program.[40]

Now let us turn to the participation of the American armed
forces in promoting general welfare. The Civilian Conservation Corps
which operated during the period of 1933-1942 was heavily supported
by the War Department. The camps were built and administered by the
armed forces. The Regular Army fed, clothed, cared for, and
disciplined the men participating in this depression era program.

Within three months after the CCC was inaugurated there were
300,000 young men enrolled and 1300 camps were in various stages of
completion. The strength of the CCC eventually far exceeded the
strength of the army itself. By June, 1939, the total enrollment in
the Civilian Conservation Corps was over three million men. A great
deal of educational and training activity took place in this
organization.[41]

In 1965 the United States Army conducted Exercise Polar Strike in Alaska. Part of the operation called for dispatch of Special Forces units from Fort Bragg, North Carolina, to selected villages in Alaska. Working in coordination with the United States Public Health Service the army personnel engaged in:

1. Teaching natives basic first-aid procedures and giving general hygiene and nutritional instruction based on current publications furnished by USPHS.

2. Advising the village council, through the village Health Aide, concerning sanitation methods and techniques.

3. Teaching, advising, and helping village Health Aides in patient care.

4. Rendering medical and dental care within the capability of the detachment medics and the Civic Action Team.

5. Consulting USPHS area physicians and dentists concerning patient management.[42]

In areas where there were no subprofessional dental, medical, or veterinary personnel the team requested the Village Council to supply candidates for on-the-job training by army personnel during the exercise.

The priorities established for medical examinations and treatment were: (1) school children, (2) pre-school children and their mothers, (3) pregnant women, (4) people over 60, and (5) others who needed medical or dental care.[43]

The training and preventive care programs were conducted within the guidelines of the USPHS and the Alaska Department of Health and Welfare. Classes were presented in fluoride applications and preventive dental care, purification of water, animal diseases, sterilization techniques, and emergency first-aid.

For several reasons the veterinary portion of the exercise was particularly significant. First, the likelihood of many Alaskan families depends upon the health of their dogs, which are used for transportation. Second, there are few civilian veterinarians within 500 miles of Nome or north of Fairbanks. And third, animal vaccines are very expensive and beyond the means of many of the natives. Most

of the effort was directed toward a rabies innoculation program
for dogs and toward educating the people about diseases that
affect their animals.[44]

The purpose in presenting this historical sketch of the use
of the armed forces in developmental activities was to emphasize that
this is not new--only the name "civic action" is new. Armies have
been active in efforts to improve social and economic conditions
for centuries, and those effects have recently been expanded sig-
nificantly, particularly in Latin America.

The Military as a Place to Get
Training and General Education

Attention will now be focused upon recent activities of the
United States armed forces in providing skill training and general
educational development for American servicemen.

Contrary to popular belief the armed forces spend only a
fraction of their time involved in combat operations. The majority
of time is devoted to training, i.e., teaching or being taught.
Competence as an instructor is an essential qualification for military
leaders at all levels. The armed forces probably practice more faith-
fully the policy of lifelong learning than any other segment of
society. The subjects taught range from literacy instruction to
doctoral and professional level educational programs.

In the area of vocational training the skills taught cover a
wide spectrum and prompted Edward Glick to refer to the armed forces
as "skill centers." A cursory look at in-house vocational training
will reveal that men are being trained as musicians, dental technicians,
artists, draftsmen, construction workers, data processors, air traffic
controllers, medical laboratory and x-ray technicians, cooks, bakers,
postal clerks, policemen, airplane mechanics, automobile mechanics,
television repairmen, clergymen, etc. This list could obviously be
extended indefinitely. Almost any skill that is needed in a
civilian community is also needed in the armed forces and generally
the armed forces "train their own."[45]

In fact, many persons are prepared for civilian occupations
primarily in the military forces. A climatologist recently hired by
Michigan State stated that he had difficulty getting a job in the
field in spite of the fact that he holds an advanced university degree,
because most agencies give preference to men with military training
and experience. The majority of civilian airplane mechanics,
bakers, medical and dental technicians, and the new medical para-
professionals were trained by the military.[46]

The armed forces are also an important secondary source of
many middle-level skills: auto mechanics, electricians, policemen,
meat cutters, metal workers, radio and television repairmen, utility
linemen, welders, and more recently, computer programmers. Many
systems and research analysts also leave the military services each
year and are actively recruited by civilian firms.[47]

It is interesting to note that the first electronic computer
was developed within the military forces and the new rage in
management was made possible by the computer; the planning, program-
ming, budgeting system was developed and used within the armed
forces many years ago.[48]

As technology becomes more complex, the number of ground
combat specialists declines. A few years ago there were more
electronics repairmen in the armed forces than infantrymen, and one
can assume that this ratio has shifted more in favor of the
electronics repairmen. A presidential commission in 1956 provided
data indicating that there has been an upward trend in the civilian-
type occupations among positions occupied by armed forces enlisted
personnel, and one can likely assume that this trend has continued
to the present time. The following chart prepared by the commission
illustrates this trend:

Civilian-type Occupations in the Military[49]

Period	Percentages
Civil War*	6.8
Spanish-American War*	13.4
World War I	65.9
World War II	61.2
Korean War	69.7
1956	74.7

*Includes Army personnel only.

A principal appeal used recently to produce an all-volunteer armed force is the opportunity to learn a skill or trade that can be used upon release from military service. It is easy to understand why military leaders have often wondered if the civilian economy was receiving more benefit than the military from its vocational training efforts. As a matter of fact, they both benefit.

A recent program implemented in the Army called "project transition" allows a serviceman to participate in classroom and on-the-job training during his last six months in the Army. He is released from his military duties and may participate in a program of his choice to study carpentry, electronics, meat cutting, plumbing, law enforcement, accounting, automatic data processing, and dozens of other skills. In many cases contractual arrangements with nearby colleges allow the men to receive up to nine college credit hours during participation in this program.

As implied earlier, the United States Armed Forces operate one of the largest educational institutions. In 1971 more than 800,000 servicemen and women were enrolled in formal educational programs. Robert T. Kelley, the Assistant Secretary of Defense for Manpower and Reserve Affairs in addressing military officers in charge of education stated that as draft calls decrease their jobs will become "more important and more challenging, for educational opportunity can be a significant inducement to voluntary service in the armed forces."[50]

In the armed forces there is an education officer at each
post to insure that a wide range of educational programs is available.
Educational opportunities for men at remote locations are also
available through correspondence and college credit by examination.

Since World War II the University of Maryland has conducted
undergraduate courses at bases in the United States as well as bases
around the world. Universities with master"s degree programs in
Europe include the University of Arkansas, University of Utah, the
University of Oklahoma, Wayne State University, and Ball State
University. In addition to the master's program, the Chicago City
College operates a two-year occupational program in Europe which
leads to an associate degree. Last year servicemen completed almost
44,000 graduate courses in off-duty time, with enlisted men completing
almost 16,000 of them.[51]

Most of the courses are studied under a tuition assistance
plan--the serviceman pays 25% of the cost of the program and the
government pays the balance. It is not necessary that the courses
be related to military duties. In 1971 the military services spent
more than eleven million dollars on tuition assistance. This
accounted for more than 220,000 class enrollments which included
175,000 enlisted men taking undergraduate courses.[52]

Other programs are available for men that are not eligible for
college level courses. One of these is the General Educational
Development (GED) program. In the GED program a man is excused from
regular military duties to participate, and it is offered at no cost
to the individual. The American Council on Education, which controls
the GED testing program, reported that 45,000 servicemen qualified at
their state standard levels in 1971 and were encouraged to apply for
certification. "This means that 45,000 dropouts completed high
school equivalencies while on active duty last year."[53]

A new type program has been recently implemented: Predis-
charge Education Program (PREP). Under this program local community
colleges offer classes which are paid for by the Veterans Administra-
tion. Upon completion of the program the soldier may enroll in

community college classes on the post. The courses are available
to all servicemen who have not completed high school or who need
refresher courses or remedial training to prepare for college
entrance. Many of the men participating in this program need con-
centrated study in reading, writing, and math. Others lack self-
confidence--a lack frequently related to poor educational opportunity.
Men are also given counseling in order to prepare them for college.[54]

Occupational courses are also available by correspondence
through the United States Armed Forces Institute (USAFI) at minimal
cost. This Defense Department Agency had an enrollment of 250,000
students in 1971--approximately 40,000 of them took occupational
courses.[55] (See Appendix B for description of USAFI.)

Some servicemen also qualify for college credit through the
College Level Examination Program (CLEP), which is also available
through the military education offices. In 1971 servicemen passed
almost 97,000 CLEP examinations. More than 19,000 servicemen thus
earned eligibility for advanced placement in over seven hundred
colleges which give credit for CLEP.[56]

Another rather unusual education program is called Program for
Afloat College Education (PACE). This is an educational service
offered through the University of South Carolina for sailors aboard
ships homeported in Charleston, South Carolina. The PACE catalog
contains forty college-level courses and other courses may be taken
through other participating universities or colleges. The PACE
courses combine lectures when the student's ship is in port and
supplemental filmed lectures aboard ship while at sea. In some cases
instructors accompany the ship and conduct courses during a cruise.[57]

Harvard University, Jacksonville University, San Diego State
College, and the University of Hawaii also participate by awarding
either extension or undergraduate credit for successful completion of
PACE courses. In 1971 over 5,000 sailors participated in PACE.[58]

Due to the difficulty in transferring college credits a new
type program of higher education is under consideration:

To help servicemen avoid the hazards encountered in civilian educational institutions, some officials in the armed forces have considered the possibility of establishing an educational institution for servicemen which would award undergraduate and graduate civilian degrees. Such a serviceman's university could be governed by an academic advisory committee from the civilian educational community and would credit all non-traditional education which had the approval of the American Council on Education. At such an institution, the military could give credit for passing grades at all accredited colleges, provided that the course fit in the curriculum being followed. The institution would be a certifying agency which would award degrees in its name. Extensive counseling services would eliminate duplication of credit, and strict interpretation of credits earned would help the institution maintain its credibility.[59]

One might reasonably ask if the armed forces should be involved in the educational enterprise. Some may question if education can flourish in a military atmosphere.

There are some who feel education is not an appropriate military mission but Professor Kenneth Clark, a distinguished black educator has gone one step further and suggested that the armed forces should provide educational opportunities for civilians as well as servicemen due to the success of military in-house programs.

The Defense Department has been quietly effective in educating some of the casualties of our present public school. It is hereby suggested that they now go into the business of repairing hundreds of thousands of these human casualties with affirmation rather than apology. Schools for adolescent dropouts and educational rejects could be set up by the Defense Department adjacent to camps--but not necessarily as an integral part of the military.[60]

One might also raise the question of the comparative costs of educational programs in the armed forces. In a recent unpublished paper, Dr. George C. S. Benson, Deputy Assistant Secretary of Defense (Education), made the following comments in responding to a question about the overall cost of the armed forces education program:

No one knows exactly. The U.S. Armed Forces Institute costs
$6 million a year. Administrative personnel in the Services
probably cost less than $20 million. Group study instruction
costs about $4 1/2 million a year; non-instructional services
such as testing and counseling amount to another $4 1/2
million. Tuition assistance paid by the Armed Forces was
almost $11 million in 1970. Thus, the total was about
$46 1/2 million for the fiscal year which ended June 30,
1970. When one remembers the 100,000 high school equivalencies
and the thousands of college degrees, this is very inexpensive
education.

This information has not answered conclusively the question
of whether or not the military forces should be involved in the
formal academic and vocational education enterprises and, if it
should, can it be effective--each reader will have to make his own
judgement on these matters. In making this judgment, however, one
might consider the point made by Professor Kenneth Clark: "anti-
militarism rhetoric should not stand in the way of rescuing as many
young people as possible. Nevertheless, it has done so before, and
would probably do so again. One must be mindful of an earlier time
when Armed Forces advocacy of Universal Military Training was bitterly
fought as an attempted 'military intrusion into education.'"[62]

The potential for peaceful uses of military forces in bringing
about socio-economic change is practically unlimited, but the
desirability of this activity may well become buried in "professional"
rhetoric if it involves the invasion of another's "turf."

Similar resistance has been raised by other groups when pro-
posals were made for the use of military medical and engineer per-
sonnel to provide medical treatment and construct facilities to
benefit the poor in Appalachia and similar socio-economically
depressed areas.

The Military as an Instrument of National
Development in Developing Countries

Civic Action

The historical sketch of military efforts in national
development presented in the preceeding section should serve to
illustrate the great potential energy available within military
forces and ways that this energy can be constructively applied in
the development of a nation. Military forces in practically every
country of the world possess skills that are badly needed and in
short supply in most developing areas. In developing countries, the
military is often the only well-organized, equipped, and mobile
force that possesses the variety of skills required for nation-
building. Thus in practical terms, it is highly advantageous, if
not mandatory, for developing countries to focus the capabilities of
their standing armies upon this objective. In addition, the use of
military forces on constructive projects strengthens the position
of the government itself by getting at the root causes of social
unrest and disorder.

Historically armed forces have used a large share of national
assets. Their "output" has been relatively negligible in tangible
terms. There are, however, many ways in which the armed forces can
perform a more productive role and concurrently perform the assigned
role of providing security against internal and external threats.

The United States has been aware of the advantages of the
peaceful uses of military forces in projects beneficial to the
civilian population for some time. One of the earliest acknowledg-
ments of these advantages and plans for organized application of such
a policy to developing countries was made by the Draper Committee.
This committee was appointed in 1958 to examine the various aspects
of foreign assistance. The committee suggested that more considera-
tion be given to the use of indigenous forces in socio-economic
improvement in developing countries and this philosophy was
incorporated in the Act for International Development of 1961 which
encouraged:

To the extent feasible . . . the use of military forces in less developed, friendly countries in the construction of public works, and other activities helpful to economic development should be encouraged.[63]

A lot of the military efforts in national development can be illustrated in the so-called "military civic-action" defined as:

The use of preponderantly indigenous military forces on proints useful to the local population at all levels in suc' ields as education, training, public works, agriculture, transportation, communications, health, sanitation, and others contributing to economic and social development which would serve to improve the standing of the military forces with the population.[64]

Lieutenant General Alberto Ruiz Novoa, the former War Minister ‵‵ Colombia, and a leader in the introduction of civic action into Latin America, provides another definition which states in part:

Military civic action has as its purpose to extend to vast sectors of the populace the government's help, especially in the field of social assistance, through the military organization of the nation. It is based on the premise that the use of military means to accomplish programs of economic and social welfare will awaken in the benefitted population trust and sympathy towards the government and the military forces. These programs are developed without affecting the military efficiency of the armed institutions or compromising their principal functions.[65]

The origin of the term "civic action" is not entirely clear. Some have given credit to Defense Minister Romon Magsaysay of the Philippines, who in 1950 led the Filipino Army against the Communist Hukbalahp forces. Some have attributed the term to Lieutenant Colonel Edward Lansdale who served as advisor to the Filipino armed forces. Colonel Lansdale provided a very concise definition of civic action: ". . . almost any action which makes the soldier brother of the people, as well as their protector."[66]

Perhaps some parts of the official definition of civic action need clarification. The term "preponderantly indigenous military forces" simply means that the basic instrument of civic action in developing countries should be its own military force.

The assistance rendered by outsiders such as United States armed forces personnel should be as advisors and to provide necessary equipment not otherwise available. The basic concept calls for assisting others in doing something for themselves, not doing it for them. This seems to be the heart of the now famous "Nixon Doctrine" which has drawn both criticism and praise, depending upon one's political orientation and interpretation.

In addition to the favorable disposition of the military toward civic action, the armed forces of developing countries usually possess a number of special and unique attributes which qualify them for a role in national development. While the civilian base in any country is naturally numerically superior and possesses greater overall resources, the military is likely to have a proportionally higher share of trained manpower, equipment, and finances. Its leaders are frequently among the best educated, and in recent years have been drawn in increasing numbers from all social and economic levels of society. The army normally has capabilities for security, communication, and mobility, and is capable of sustaining itself and functioning ir the most primitive and dangerous environments. This is particularly important in civic action operations conducted in rural areas of active social unrest. The militia is therefore likely to be the best single instrument for nation-building in rural areas under adverse conditions.

Armed rebellion often develops in response to legitimate grievances of the populace. In some cases legitimate movements have been exploited by external powers intent upon gaining political control. Such a revolt always poses as the champion of the people and "rises" against a "currupt and totalitarian" regime which it deems as opposing the "true" needs of the "people." Military civic action provides a means of curbing armed rebellion in its incipient stages by helping to relieve the conditions which contribute to disorder and unrest. Civic action projects demonstrate in a positive and concrete way that the government is concerned about the welfare of its citizens and capable of making improvements.

Armed forces are inherently a disciplined organization. The
leaders are generally well trained and the force has an independent
system of communication which facilitates coordination and control.
Th: level of technology and skills within the armed forces of most
developing countries is likely higher than any other group within
the country. In a large percentage of cases the skills necessary
within the armed forces are transferrable to non-military or civilian
occupations.

It is necessary, however, to establish realistic priorities
within the armed forces. One author has stated that many years of
military experience seems to support the view that non-military
projects must not impair military efficiency. They must help build
the economy and must not undermine civilian authority. In the joint
efforts of soldiers and civilians there should be a high civilian to
military ratio and local capabilities must be developed so that it
will be self-sustaining. The projects which are undertaken should be
visibly beneficial to the local populace and as far as possible the
military forces should work with the people and not for them.[67]

Even in the most underdeveloped countries the armed forces
have the capability of installing and/or operating communication,
improving public utilities, constructing and repairing roads, harbors,
railroads, schools, hospitals, and other facilities. They have a
capability of improving health and sanitation; providing instructors
and instructional materials for schools; assisting public administra-
tors by providing help in police and fire protection and civil defense;
helping to establish village councils; helping to control the popula-
tion and resources; and providing help in harvesting crops and
reclaiming land. The range of uses of armed forces is only limited
by the imagination of the planner, and of course the realistic limits
imposed by the available resources in a particular situation.

The nation of Israel provides an excellent model for the con-
current use of military forces for security and national development.
The Israeli army maintains a rather small regular military force and
a large reserve. To a great extent the history of the new

nation-state of Israel is a story of nation building by the armed forces while effectively providing security against significant internal and external treats to security.

Most developing countries which have successfully integrated their military efforts into the social and economic development of the country find that a bonus is accrued in the form of improved military skills. In addition, when the soldier leaves the armed forces he takes the acquired skill with him and this assists in meeting the demand for skills required for overall national development.

Education, Health, and Development
Corps

The Iran experience provides another pattern of the use of the military as an instrument of national development. Before going to the details of the program, a few background notes are in order. (See Appendix C for a more detailed discussion of the program.)

In the early sixties it was estimated that 62% of Iran's population lived in the rural areas. The per capita income was estimated at $50 per year. There was an accute shortage of teachers; 76% of them lived in cities and only a few were willing to serve in the villages. Eighty percent of the total population were illiterates and the 20% literate were mostly in the cities. Focusing on the military establishment, it has been a vast unit of government consuming a large amount of the national resource. In Iran all citizens of a certain age are required to serve in the military for 18 months.

The above background serves as the rationale for military involvement to promote education, health, and community development. The program is essentially to secure military drafters to work in the villages as literacy teachers. community development workers, recreation directors, community organizers, to assist in construction of roads, schools, and water supplies and to assist in health and sanitation programs. A four-month pre-service training is provided to the draftees. The training program is so designed that the draftee

could function either as a literacy teacher, a health and sanitation worker, or a reconstruction worker. Some members of the corps act as multifunction workers. The members of the literacy corps are paid $50 a month and have the option to remain as regular school teachers after they have completed their military duty. An additional four months of training is given to those who want to become permanent teachers.

To encourage women to pursue education, in co-educational settings women draftees are also recruited to join the literacy corps.

The literacy program is a joint undertaking between the Ministry of Education and the Ministry of War, with the Ministry of Education responsible for financing, training and field operations including field supervision. The Ministry of War provides the training facilities and military training.

Evaluation

L. M. Brammer's and B. M. Harris's reports provide a balanced picture of the positive and negative aspects of the program.

The following are the positive aspects as noted by Brammer:

1. The program has the support of the Iranian people.

2. Generally the corpsmen are greeted with enthusiasm. The village has to request their services and agree to build a one-room school.

3. The educational corps is viewed as a national unifying force teaching Persian as the official language.

4. The nation gains by having corpsmen engaged in meaningful, useful work.

5. The education corps has been serving as a recruiting device for village teachers. In a survey that we conducted 97% of the corpsmen indicated desire to stay in the same village as teachers after this military service.

Mr. Brammer also provided some criticisms including: (a) the "crash" nature of the program, (b) the tendency of the program to replace a permanent educational system, and (c) the tendency of the program to turn out basically educated but unemployable youth.[68]

Harris presents the more negative features of the program as follows:

1. Training is inadequate;

2. Planning for in-service training doesn't exist;

3. Total preparation of draftees for regular teaching is not adequate;

4. There is no plan to extend the initial two-year program into a fully functioning elementary school;

5. There is no access to reading materials; and

6. The program is inadequately financed.[69]

Other corps have been engaged in some of the following activities:

1. Ministry of Health statistics show that in the first two years of their work, the health and sanitation corps have treated and vaccinated more than 4 million patients in clinics run by corpsmen.

2. Corps instructors have given 17,000 lectures and have shown 2,400 films on subjects related to health, hygiene and sanitation.

3. Reconstruction corps have dug up or made safe for drinking 4,200 wells and 1,900 springs; built or repaired 190 clinics, 1,000 public baths and laid water pipes in 124 villages.

Conclusion and Implications for the Study of NFE

In the face of the reality that nation states will continue to maintain armed forces, it will be in the interest of any nation to regard the military as a national resource which can be tapped for developmental purposes in times of peace. There are a number of patterns for which the military can be used as positive force to achieve non-military purposes. Two general patterns can be distilled from this report. One is "civic-action" type where-in specialized expertise, experience, equipment, materials, facilities are harnessed to support national development. The other is the use of the armed forces as a "sponsor" of teaching-learning experiences for its own personnel and which can also be employed as a part of a national system of delivery of education.

Historically and traditionally the military has been
producer, user, and teacher of knowledge and modern technology.
Teaching has always been an inherent feature within the armed forces.
New ideas about modern warfare are continuously taught to officers
and enlisted men. Excellent instruction and the development of
first rate teaching materials and facilities are part of the military
tradition. In fact a number of educational practices, modes, and
instructional techniques and aids were either developed or popularized
within the armed forces. It can be said that the military is probably
one of the strongest believers and practitioners of lifelong education
which benefits the members, the whole organization, and ultimately
the nation.

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CHAPTER X

VOLUNTARY ASSOCIATIONS AS SPONSORS OF

NON-FORMAL EDUCATIONAL ACTIVITIES

By

Lois Bauer

Introduction

This project report focuses on an analysis of voluntary agencies
which sponsor community activities of a non-formal nature.

A literature survey is included which summarizes findings,
conclusions, and remarks by various authors who have previously
engaged in research relating to voluntary associations. This portion
of the report is presented to provide at least a minimum conceptual
framework which may assist to clarify the phenomenon of the voluntary
type organization (association, agency, etc.) as it is seen to exist.

The voluntary organization as sponsor is identified as that
"institutional complex which initiates, supports and governs the enter-
prise and within which operating institutions are established,
legitimized, and managed."*

Two key terms, non-formal education and voluntary association,
need to be defined. For the purposes of this report:

> Non formal education is any intentional and systematic
> educational enterprise (usually outside of traditional school-
> ing) in which content, media, time units, admission criteria,
> staff, facilities and other system components are selected

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*R. Kleis, et al., "Toward a Contextual Definition of Non-
Formal Education," in M.S.U. NFE Discussion Paper No. 2.

and/or adapted to serve particular students or situations, to
maximize attainment of specific learning missions and to
minimize maintenance and other constraints of the system.*

In terms of an idealized system we conceived of NFE as having
three subsystems which are interdependent and interacting. They are:

1. Institutional Subsystem

   A. Mission   The legally and/or consensually established
                 framework of intention which constitutes the
                 raison d'etre of the system and within which
                 particular purposes, goals, and objectives
                 are evolved and pursued.

   B. Sponsor   The political, religious, industrial and/or
                 other institution which initiates, supports,
                 and governs the enterprise and under whose
                 auspices operating units (often schools) are
                 established and managed.

2. Participant Subsystem

   A. Mentors   The personnel, whether specially trained and
                 certified or not, who teach, counsel, admin-
                 ister, prepare materials, and otherwise staff
                 the enterprise.

   B. Students   The participants whose cognition, competence
                 and/or volition are to be educed.

3. Curricular Subsystem

   A. Content   The body of knowledge (information, compe-
                 tence and/or preference patterns) which
                 students are to learn.

   B. Media   The materials, equipment, plant, and processes
                 by means of which direct or vicarious experi-
                 ences are provided and communicated to, by,
                 or among participants.

We use the term voluntary association here to mean a social
organization made up of a voluntary membership, whose primary purpose
is non-profit service to members and others or promotion of an ideal
or cause.

Significance of Voluntary Associations in a Community

From the standpoint of the larger society, it is on the local
level that individuals are molded into attitudes and types of behavior

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*Ibid.

through which they become compatible with the society's ways, through
which they become equipped to carry these attitudes and types of
behavior, and through which they have the occasion to develop them
further. The process by which individuals, through learning, acquire
the knowledge, values, and behavior patterns of their society and learn
behavior appropriate to the various social roles which their society
provides is termed socialization.

There is a growing recognition that socialization is not simply
a process exclusive to childhood and adolescence, but rather a continuing
process through which the individual maintains reciprocal relationships
with others within the framework of the many social roles which pattern
social behavior.

Although the community is not the only system actively involved
in the socialization of the individual, it is the arena in which the
individual is confronted with the particular way in which his society
structures individual behavior. it is important to acknowledge that
the "locality-relevant" functions are characteristically distributed
among a number of different auspices (Warren, 1972).

The socialization function of the various agencies operating
in the community are by prescription adapated to their own peculiar
exigencies. In enumerating principal agencies with important socializa-
tion functions, one can recognize their different levels of operation,
their different places in the total system, their relative systemic
independence of each other. There may be at times efforts to develop
a rational, planned relationship, between some of the specific parts
of the socializing influences.

A certain modicum of conformity to group prescribed behavior
patterns is necessary for any social system to function as a whole.
Social control--a process through which a group influences the behavior
of its members toward conformity with its norms--like other community
functions (socialization, mutual support, etc.) is not performed exclu-
sively at the community level. Community functions, in developed and
highly industrialized locations, are performed by numerous types of
units both below and beyond the community level. Thus have developed

the terms "locality-relevant" and "extra-local" to describe community function relationships.

An important locality-function is that of affording oppor- tunities for social participation. The community is the locus for the function of providing opportunities for social participation of various types. Human individuals, according to social psychologists, acquire their distinctly human nature through participation in groups. The type of association into which the individual comes in his daily living is largely determined by the associational structure of his local community.

Communities differ greatly in the pattern of associational activities which they afford. Any large and complex social setting, such as a modern society or one of its urban components, may be viewed as an aggregate of organizations (associations), which appear, disappear, change, merge, and form networks of relations with one another. This patterned aggregate has been called an "interorganiza- tional field" (Warren, 1972; Turk, 1970, 1973).

If mass responses to the broader setting are both formulated and enacted by organizations, it is reasonable to re-define the setting in terms of such organizations and the relationships which exist among them. The tendencies in American communities have encouraged social participation in secondary groups--highly structured, institutional patterns.

Increasingly, there is an important tendency for association to take place on the basis of mutual interest rather than propinquity. People in the U.S., whether in formal or informal associations, appear to have become more selective in their association (social participa- tion), not limiting their contact to their immediate neighbors, but extending their relationships to include other people whom they find congenial or who share their interests, and are (for example) fellow members in the club, the church, or in the union. Individuals in urban areas are likely to travel comparatively further for personal contacts than for commercial contacts.

A large body of research points to the proliferation of formal
voluntary associations, formal organizations which provide ready-made
structures of social participation (Seely, 1957; Handbook of Organiza-
tions). Participation in such groups becomes more important as the
groups have acquired functions in the process of change, functions which
earlier in the history of a community were provided by informal group-
ings of a more nearly primary nature.

While many of these groups serve primarily the recreational,
religious, or economic interests of their members, such as hobby clubs,
fraternities, churches, and unions, others have an additional aspect--
an interest in the determination of community affairs. Some may be
clearly organized with the express purpose of pursuing an area of
interest or concern on the behalf of others in the community.

Sower and his associates stated: "The belief in voluntary
community action for the welfare of the community may be the charac-
teristic more than any other single feature, distinguishing the American
community from communities in other cultures" (1957). It is these
which are most often referred to when the peculiar American penchant
for voluntary citizen participation in community affairs is mentioned.
However, some authors, noted later in this report, would suggest this
to be not so peculiar to the United States.

The number of networks that converge upon one place is a way
of referring to its societal integration (Turk, 1970, 1973). An
interorganizational view of a locality also implies that a certain
level of abstract consensus is likely among organizations. In their
search for predictability in uncertain environments or because of
penetration by broader structures, as non-locally based organizations
or community federations, organizations can hold certain abstract and
over-arching norms and values in common that regulate their interaction
with another. It might be expected that the greater a community's
organizational density the more likely is such penetration to occur
and thus the more likely are shared standards to exist (Warren, 1972;
Turk, 1970, 1973).

The integration associated with shared standards is partly a
function of voluntary associations having uncontested, community-
wide significance. Voluntary associations that belong to a general
class of structures having integrative significance for broader social
contexts often pursue diffuse goals that may reflect whatever consensus
exists among the other organizations in the community.

Williams and Adrian (1959) have provided data suggesting that
community organizations, e.g., service clubs, business associations,
employee unions, can be effective in mobilizing partisan political
activity. If such groups go uncontested in any locality, they may
constitute the only means of concerted action--political or otherwise--
even though portions of the population may be unrepresented. Under
such circumstances the community-serving organizations might also
indicate the absence of organized cleavages as well as constituting a
facility for specialized nonmember groups who would be linked as
clients.

Because such community-wide associations are voluntary, they
may be prevented from taking sides in a controversy or from joining
coalitions for fear of losing members. This very fact, however,
means that they may be better able to initiate and pursue noncontrover-
sial measures and to introduce undisputed value inputs that partisans
can employ to legitimatize what they do. Being voluntary organizations
does not preclude their being potential political forces. Likewise,
the more diffuse the goals of voluntary associations are, the more
potential adaptability these organizations have to change and to a
decentralized organizational environment.

The little influence that certain orientations have for lack
of means of expression within the market or political arena, may
indicate the extent to which large portions of the community are
without organizations, and the degree to which the values of voluntary
organizations are uncontested. The relatively high rates at which
members of middle and upper socio-economic strata join voluntary
associations make it likely that certain values are over-represented.
Turk (1973) hypothesizes that the development of voluntary associations

may reflect the loss of political power by high-status groups who use this means to maintain control in organizational contexts not governed by the mass vote.

Community-wide voluntary associations may produce disproportionate consensus among members of the higher strata, who may constitute the elite of the community's other organizations. Consequently the more community-wide a city's associations are, the more they will constitute a means of dampening strong interorganizational contest because of overlapping memberships of organizational elites, and the more they will channel diffusely distributed influence by consensus, and therefore facilitate new interorganizational relationships.

It was assumed that the large cities studied in the United States (Turk, 1973) were more or less similar to one another in whatever consensus occurred within them because the norms and values predominating among them would be external in their origins. That the shared values are national is in accord with Warren's (1972) suggestion that the values of a community are likely to be those of the more inclusive social system, emanating from the extra-local ties into the local community.

Organizations--as municipal agencies and voluntary associations--may experience the need to exert pressure for interorganizational relations, if only to represent the public interest or for the convenience of not having to deal with large numbers of organizations singly. The less contested and the more community-wide the voluntary associations, the more likely is such pressure to be exerted.

The need for formal relations among organizations does not necessarily generate these relations, even if the capacity for them exists, but the need must be translated into demand through some form of communication and then compete with other demands for services provided within a community. The less contested and the more community-wide the associations, the more likely are competing demands to be communicated and evaluated by all interested organizations in the community.

Where coalition formation is possible, it is likely there
will not only be the capacity for formal relations among organizations
but also the capacity to convert need into demand. Where national
trends exist, assuming the validity of the evidence of national
values, the successful coalition is likely to form around these
national trends.

The significance of voluntary associations (and government)
for the integration of social systems has been noted by Warren (1972),
Turk (1970, 1973), Sills (1968), and perhaps others. Much of the
evidence comes from case studies or data concerning the increase in
civic participation of association members. Turk (1973) suggests that
what has not always been recognized is the major integrative signifi-
cance of these two kinds of organizations which may be in the linkages
the effect among other organizations. It is possible that the
elements of an urban community can only be integrated if its organiza-
tions permit it to occur.

The existence of facilities, organizational or otherwise, can
perhaps have little or no influence unless there are linkages for
transmission as supply. Supply and demand can occur at the inter-
organizational level. Furthermore, all supply and demand processes take
place in a market. Organizations are needed to generate the market-
place through which wants and dispositions to provide can be articulated
with one another, even if only that they have become known to their
respective holders. Uncontested community-wide voluntary associations
may be an estimate of the linkages that affect the marketplace in
which interorganizational supply is related to level of demand in the
community.

Significance of Participation and Membership
in Voluntary Associations

Voluntary associations play a vital role in society. Such
groups are both numerous and diverse and involve large numbers of
individuals. They provide a setting in which to engage in expressive
activities, function as vehicles to implement special personal interests,

and may provide affectual support for the individual. They are important agencies supporting the normative order (though some groups are organized to change the order), helping to distribute power at the grass roots level, functioning as service centers, and reinforcing important values. Membership in groups can not only be socio-emotionally gratifying, but makes it possible for the individual to control an important part of his environment.

There is a wide literature on the characteristics of people in relation to their participation in voluntary organizations of various types. In general, there appears substantial agreement between local and national studies using probability samples and less sophisticated designs regarding social determinants and correlates of membership (Curtis, 1971; Wright and Human, 1951; Human and Wright, 1971). Affiliation is directly related to social class; persons who have resided in a community for the longest period of time are more likely to be affilated than recent migrants; married persons appear to be more likely to be members of groups than single persons; home ownership is positively associated with membership; and men are more likely to be members of associations than women.

Generally, the studies show that people of high socio-economic status participate in voluntary organizations more than those of low status, and the degree of participation appears to follow a continuum from one extreme to the other. Hyman and Wright (1971) found a direct relationship between the percentage of American adults who belong to one or more organizations and their income level, educational level, level of living, occupation, and home ownership status. Based on these characteristics, the lower status groups showed the greatest percentage of people who belong to no organizations and the fewest who belong to one or two or more. People of successively higher status levels showed a larger percentage of membership.

Treatments of voluntary participation often fail to differentiate between self-serving groups and community-serving groups and often neglect church participation--perhaps among the most numerous of voluntary associations. The major studies have used cross-sectional

design in obtaining data, thus presenting a static view of the range
of affiliation of a population, but not necessarily reflecting the
extent of involvement of a population in voluntary groups as it exists
over time. Much research has been largely occupied with affiliation
per se, or extent of involvement, without significant attention to type
of association and its impact. Such a focus results implicitly in
equating membership in such diverse groups as a bowling club, the
League of Women Voters, a Rosary Society, or an American Legion
Auxiliary.

However, while agreement between studies is substantial,
differences are occasionally reported. There are discrepancies
regarding whether urban residents are more or less likely to be
affiliated than rural residents, or to the extent of affiliation.
Human and Wright (1971) conclude only that 36% of the American popula-
tion belong to voluntary groups. Curtis (1971) notes that the Detroit
Area Survey investigators found 63% of the population held a membership
in at least one organization other than a church, that 64% of a sample
in Bennington, Vermont, were members of associations, and 77% to 93%
of men in a San Francisco sample belonged, depending on the charac-
teristics of the census tract in which these men lived.

Such differences in rates appear to hinge on both the defini-
tion of voluntary associations used and on the methods employed to
elicit information on membership.

The relevance to various types of motion as, for example,
job mobility, residential mobility, migration, and social mobility, as
a correlate of membership in formal voluntary associations, has been
noted theoretically and in some cases, shown empirically (Curtis, 1971).

In urban-industrial societies in which the rate of mobility
is generally relatively high, formal voluntary associations may provide
the specific type of structure in which participation of mobile persons
need not be relatively low. Janowitz has suggested that while social
mobility in urban societieis may produce isolation in primary relation-
ships, mobile persons need not be altogether isolated, by virtue of
the development of extensive secondary relationships. Structures

characterized by preodminantly secondary relationships in the urban
community provide a locus for interaction with members of one's
stratum of destination in which social origins are of minimal importance.
Whyte (The Organization Man) has stressed the utility of formal
voluntary associations in meeting needs for social participation of both
socially mobile persons and migrants. Such a line of reasoning might
therefore indicate equal or over-representation of mobile persons in
formal voluntary associations.

Curtis (1971) notes that one type of association, namely sport
teams or hobby clubs, is inherently unique. It is only in such an
organization--organized around an interest which provides a link
between different statuses, and composed of members from varying sta-
tions in life--that mobile persons may participate without being set
apart from other members either to social background or by present
status.

Zimmer's (1955) study of migration indicates a temporarily
low level of participation among migrants. Distinguishing high partici-
pators from the low among migrants into the Minneapolis, Minnesota,
area, those who reported many friends and some or many organizational
affiliations had "more optimistic attitudes, greater satisfaction
with their lives, and more confidence in society than groups reporting
fewer friends and organizational affiliations" (Warren, 1972).

Socially mobile persons may show a similarly temporary isola-
tion. This is no doubt somewhat difficult to measure as the exact
time at which inter-generational mobility occurs is difficult to
specify. With respect to the integration of the metropolitan com-
munity, however, such a temporary isolation if it exists is of minor
importance. In the long run the average level of formal voluntary
association memberships of most mobile persons in metropolitan
communities is not unusually low (Curtis, 1971).

However, in examining the occupational and educational mobility
in two Latin American countries--Costa Rica and Mexico--and in the
United States, Simpson (1970) finds some evidence that: (1) educational
and occupational mobility produces intense normlessness in the more

ascriptive (Latin American) societies, and (2) downward educational
mobility produces an intense sense of powerlessness in all three
countries. Certain evidence indicated that occupational mobility in
the more ascriptive societies, where mobility is not as commonly
expected, leads to a higher level of normlessness than that experi-
enced by the nonmobile members of the class of destination or the
class of origin.

The higher normlessness and powerlessness in Latin America is
congruent with findings that trust in others is higher in the United
States than in Mexico and Italy (in other studies), and this lack of
trust has powerful consequences for the degree of participation in the
political life of the country.

The level of normlessness, according to the socialization
theory of anomie (normlessness), is a subcultural phenomenon and is
transmitted from generation to generation unless resocialization occurs.
Mobile persons in the work field are forced into interactions which
expose them to orientation of their class of destination. These inter-
actions (tend to) result in resocialization. On the other hand, those
not in the work force have fewer compulsory interactions with the
class of destination and, therefore, have less exposure to their class
of destination's subculture.

In traditional societies, where development efforts include
industrialization, urbanization, and modernization transpiring through
the efforts of improving social class and the upward mobility of each
social strata, there will most likely, and perhaps inevitably, be
sizable segments of the population residing at uncomfortable stages
of normlessness. It is possible that more complete integrative efforts.
including interactions will facilitate a more stable resocialization.
The potential of such integrative effects as a transaction from the
occurrence of voluntary associations and affiliation and membership
participation in such groups has been noted by several writers as
discussed previously.

DeTocqueville (1835) has been attributed with the conclusion
that "in no country of the world has the principle of association been

more successfully used or applied to a greater multitude of objects
than in America." Sills (1968) suggests that the scope and especially
the uniqueness of the American pattern may be somewhat over emphasized.
This may be due to (a) the continual reliance on conclusions from
earlier reports by foreign observers (such as deTocqueville, Weber,
Myrdal) or (b) an emphasis on some evidence of very high membership
rates for selected U.S. community populations.

There are some community-level findings from researches in
Canada, France, Israel, and Nigeria which indicate that deTocqueville's
observation may no longer be valid (if indeed it had been). These
studies report a relatively high prevalence of voluntary organizations
and suggest that a pattern of frequent association joining by the popu-
lation may be by no means confined to the United States.

Curtis (1971), in comparing six countries, suggests a basic
similarity in Canadian and American social structure, and therefore a
very close similarity in the extent of association memberships and
multiple affiliation for various subgroups. Three-fifths of both
populations reported one or more memberships. One-half had non-union
membership, and 30% reported non-union multiple affiliations. (Other
studies have reported somewhat different rates, as has been noted pre-
viously in this report.)

The comparatively high membership proportions reported are
perhaps to be expected on the basis of other general social, structural,
and cultural similarities such as a comparatively high level of economic
development and associated processes of urbanization, industrialization,
requirements for trained labor, expanded formal educational facilities,
social mobility opportunities, and expansion of middle-class strata.
These processes of urbanization, increased industrialization, and
change in social stratification systems have been suggested as likely
to be highly correlated with differentiation--complexity of social
organizational structures in general, and secondary social and economic
organizations in particular--and perhaps directly related to the
extent of adult affiliation and participation in voluntary organizations.
other aspects which have already been discussed as major impetuses for

the proliferations of associations are: (1) the relative change to less control over the person by the institutions of the family, church, and state, (2) the principle of freedom of individual choice, (3) the articulation of minority groups, (4) the increased division of labor, and (5) secularization. Voluntary association membership may be a reflection of a more modern, urban, and democratic social life. Some researchers have suggested that in political cultures which are both less equalitarian and less participatory (lower levels of political participation), there will be lower over-all rates of membership and association affiliation. Such relationships tend, however, to remain conjectures. Most writers on voluntary organizations have thus far devoted only a few sentences to explanations of national differences.

The high rates of membership for male members are likely related to the fact that a large proportion of working men in industrialized nations "must" have at least one "semi-voluntary" membership, such as affiliation with a labor, trade, or occupational association.

The difference in overall membership patterns for men and for women is largely a function of differences in the affiliation and cultural roles of women. The evidence of much higher female affiliation (in Canada and the U.S.) is possibly due, in part, to a greater emancipation and personal autonomy of women in their culture. Conceptions of behavior appropriate for women probably vary by social strata in all countries. Among the classes in the U.S. and Canada there is perhaps more acceptance of individualized and equalitarian patterns for women, such as economic independence, careers, involvement in political and civic affairs, and participation in various interest groups. Membership patterns for women may also be related to the fact that personal autonomy is also coupled with saliency of achievement values and with many restrictions on female careers and occupational achievement, while at the same time success in such careers and occupations is a primary source of individual prestige. As a result of such discrepancies, some association membership and participation by women may represent a form of deflated achievement. The search for the equivalent for the occupational role has perhaps led to the striking participation

by women in cultural art, in philanthropic and community service work, and in health and welfare activities.

In a study of a universe of adults residing in one midwestern state (U.S.), Babchuk and Booth (1969) report major findings that: (1) voluntary association membership is characteristic of a majority (84%) of adult Americans. (2) Membership remains stable over time. Seventy-six percent of the respondents maintained at least one of the same memberships continuously and more than half of the panel (56%) two or more memberships over the four years studied. (3) A majority of the population add and drop affiliations in groups even within a short period of time, although most also continue to maintain at least one membership continuously. (4) Membership is equally characteristic of urban and rural residents. (5) The structure and function of associations bear on the rates and changes in affiliation. Membership tenure is often greater, and turnover lower, in groups having multiple objectives, a large membership, and a long history. (6) Men and women differ considerably in pattern of affiliation. Men are more likely to be affiliated with groups than women, have more multiple memberships as a rule, are more variable and less stable in their memberships, and belong to categorically different types of associations. (7) Affiliation and pattern of memberships is linked to family status and life cycle. The married, as compared to those who are not, are more often affiliated. Affiliation is most characteristic in the middle years. Parents predominate in youth serving groups. The aged do not become disengaged from voluntary associations until they approach the age of 70 and, even after this age, many continue to remain affiliated.

This is one of only a few studies identifying the voluntary membership patterns of the same individuals over a period of years.

Laserwitz (n.d.) reporting national (U.S.) data on church attendance and membership in voluntary church associations suggests the existence of only small and trivial differences between residential-belt participation among Protestants and the possibility of a central city-suburban difference among Catholics. Traditional religious orientations and emphases are known to be stronger in small towns, villages, and

farming areas. Here physical isolation is greater, the educational levels are lower, the minister has fewer intellectual peers, and the church has fewer competing social organizations. Also, smaller local numbers make it more difficult to remain "unfaithful" and still be unnoticed.

The Catholic drop in church attendance in adjacent and rural belts might be a result of the small number of Catholics living in these belts having to travel sizable distances to church and the greater influence of the numerically stronger dominant Protestant pattern. Perhaps, too, the Catholics are less isolated socially in the adjacent and rural belts and can more readily learn about Protestant social patterns.

Several hypotheses have been generated about the motivation influencing some people to participate more than others. Warren (1972) cites the following: (a) individuals participate because they hold such participation as a positive value and thus "we should seek to encourage participation," (b) they believe that it contributes to the individual's "mental health" to be active in voluntary organizations, (c) to strengthen some worthwhile "cause" for which one is working, (d) to study problems and to take concerted action, (e) participation is related to interest in public issues and a belief that effective citizen action makes a difference, while non-participation is an aspect of alienation, of separation from the ongoing activities of the community and of anomie.

Lippett and Schindler-Rainman discuss motivation arising from any one of several orientations, located both inside and outside the individual. However, the opportunity to volunteer must first be available to the individual. Motivational dynamics are both within the life space of the volunteer and within the life space and the organizational space of the professional. In field force terminology, there would be motivational forces that come from inside the self; those that originate outside the self, in the relationship one has with other persons and the membership one has in certain groups; and those based on the characteristics of the total situation of the

decision-maker--as issues of geography, time, space, transportation,
economics, and such. All the forces may not be operating in any one
person as he faces any one decision, nor are the forces equally strong
or have the same strength for different persons. For any one person
facing a particular decision, only some of the forces would be relevant
and their strength might vary.

Some volunteers are likely to put major motivational emphasis
on the self-actualization possibilities, while others may emphasize
service, duty, and the repayment of a "service received" debt. The
"self-actualizers" tend to see opportunities for learning, for excite-
ment, for personal growth, while the "servers" will acknowledge
opportunities for significant contributions, for meeting needs, for
some relevant action. Both areas of motivation may be important for
many individuals. However, under certain decision situations a differ-
ent priority may tend to arise as being of particular significance
to the individual volunteer (Lippett, Schindler-Rainman, The Volunteer
Community).

Significance of the Structural-Functional Analysis of Voluntary Associations

The locality-relevant function of "mutual support" charac-
terized as "providing help in time of trouble" has given rise to a
large and complex gallery of social units offering one kind of aid or
another to individuals and families needing special help beyond their
own resources. The increasing assumption of this function by formally
organized special agencies constitutes a large development associated
with several aspects of change (Warren, 1972) and the following
description of mutual support.

The assumption of the mutual support function by various types
of social units does not change its basic relevance to the immediate
locality of the individual or family. It usually involves either per-
sonal services which must be offered in a local face-to-face relationship
or supplying money which is distributed to be available for local use.
The organizational network for performing these functions includes

both voluntary and public agencies, most often those in the "health and welfare" field.

Although the mutual support function is performed mostly by voluntary and public agencies, less formalized units and private enterprise also participate. Health and social insurance are two examples of the latter. Pseudo-scientific cult practitioners and quacks offering a wide variety of services to the unwary person in his time of trouble might also be considered as a specialized channel of mutual support function.

The mutual support function, generally, is formally centralized in the field of "social welfare" services. As social welfare functions are assumed by public agencies, they give rise to highly bureaucratized types of administrative structures, with carefully defined laws and administrative regulations governing their performance, and with carefully defined authority and responsibility at various levels of the administrative hierarchy. Many are supported by tax monies.

In addition to the public welfare agencies, the voluntary agencies and institutions in which the social work function is based tend also to be increasingly departmentalized with a hierarchial form of organization, using formal policies, regulations, and such.

Likewise, bureaucratic organization characterizes private philanthropic support of nongovernmental agencies (at least in the United States). Planned routines in giving have succeeded impulse giving. "An industry-fundraising and the profession--the fund-raiser--have developed and elaborate pressure and persuasion to organize giving and mold opinion, to wage a campaign, regular, relentless, and as far as possible, irresistible" (Seeley, 1957).

A high degree of division of labor is apparent in the proliferation of specialized agencies serving one or another specialized type of individual or family need--needs which have arisen out of special circumstances of change.

Related is the multiplication of different occupations designed to perform some special type of service; the case worker, therapist, visiting nurse, probation worker, family counselor, social

worker, agency homemaker, are representatives. Most have undergone the development of "professionalization" characterized by functional specificity, emotional or affective neutrality, impartiality, and and ideal of service.

Value changes are particularly relevant to the development of social agencies as specialized performers. Three can be noted: (1) the gradual acceptance of governmental activity as a positive value in this field (as in others); (2) change from a moral to a causal interpretation of human behavior and the tendency to decrease any stigma associated with utilizing these agencies, with some extension of services beyond the "needy" to the entire population; (3) the shift in community approach from "moral reform" to "planning" as highly organized, relatively routinized structures for assessing and con- fronting community needs are developed.

Local units performing the social welfare services associated with the function of neutral support most commonly are voluntary social agencies, health associations, and public, tax supported units. Administration of public welfare agencies in the U.S. is sometimes a local function, in other cases a state function, but always there is a close connection with state and federal government. In larger communities there may be local offices of specialized federal services which may deal directly with the individual, bypassing the state government (thereby adding to the increase in differentiation and, some say, adding to the difficulty of local horizontal integration and articulation). Local public agencies in the welfare field are largely stimulated and supported by state and federal government.

Local agencies which are branches of state or federal govern- ments are noted to have little direct relation to the locality from the control standpoint. Agencies of local municipalities are usually subject to local control through the voting process and may (though not necessarily) be more directly sensitive to local needs and wishes and local influences.

The voluntary agency or association is the other major type of welfare agency serving locality-relevant mutual support functions.

The voluntary agency is typically structured with a board of directors
or trustees, or the equivalent, which have policy making authority and
engage professional administrative and service staff who are contracted
to offer and/or provide services to individuals or groups in the commu-
nity in accordance with the established policies of the agency.
Presently (1970), the trend seems to be for an extension of board
membership to include middle-class members and an extension of services
to broader segments of the community rather than centering exclu-
sively on the lower socio-economic groups. This may, however, be
somewhat analogous to a pendulum swing.

Voluntary agencies make extensive use of volunteer citizens as
board members, as solicitors of gifts, and as assistants to the profes-
sional staff in various activities of the organization. The volunteers
constitute an important link between the agency and the community. The
tie is not exclusively based on the special interests of the volunteer
but also on the position of these volunteers in the formal and
informal structure of organizations and groups in the community.

Many voluntary agencies in a local community are branches of
a national unit, with strong, extra community ties to the larger
organization which charters and controls it. Others are quasi-
independent community based with loosely affiliated and similar agencies
in other communities, receiving certain services from the national
association through the membership of their professional personnel
and through participation in various professional subcultures.

The establishment of and maintenance of some degree of func-
tional coordination among health and welfare agencies operating on the
local scene is often formalized in the community welfare council. At
first, representing primarily the social agencies, more recently the
membership has broadened with the purpose of representing the larger
community. Community chests were the earlier mode of the joint fund-
raising agency. The United Fund evolved with the inclusion of at
least one of the national health associations. Many, though not all,
national health associations are presently included in the United Fund
drives.

The usual relation of the local unit of the voluntary agency which has a national headquarters is functionally very strong with the national organization. While a national organization may permit degrees of local autonomy with regard to certain activities, it imposes a nationally determined policy and set of regulations and procedures which local units are obligated to follow. The degree of control over local branches is exercised in formal and informal ways including: leadership services in program development, providing field services, publishing materials, and conducting regional and national meetings. The ultimate single underlying fact of existence is that fund raising is the copyright. Failure to meet financial obligations including the assigned share to national support leads to disfranchising (and ex-communication). Disobedience, defiance, and insubordination of national policy, regulations, and procedures likewise lead to severance and dismemberment for the local unit. Local units meeting such fate are thereafter barred from using national identification or receiving national services. Most local branches do not even consider this prospect as a potential future occurrence.

Most local units are developed by field staff from the national organization with the definite intent of becoming chartered and becom-ing integrated into the program. Maintaining membership interest, preserving organizational goals and the major operational programs are considered dependent upon the corporate-type structure for their proper functioning. Organizational effort at the local level is expected to at least in part support the national-level organizational goals. Con-siderable controversy abounds at the community and national levels concerning the lack of clear analysis of the types of functions appro-priate to the locality level and the type of functions appropriate at the national level.

Strong policy directives orienting the program and activities of the local chapter toward nationally determined procedures may hinder collaboration with other local agencies on more commonly based community efforts. Some agencies, insisting on independent fund-raising campaigns, likewise preclude any extensive local integrative policies.

The Community Chests and United Funds represent the usual, rather dramatic, points of tension between these vertical and horizontal

patterns of organization. These sets of forces are indeed similar to those in operation with other major types of locality-relevant functions (business, industry, education, etc.).

It is the experience in the United States that local units of national health associations do find it difficult to pursue their primary interest in a specific disease field and at the same time join with other similar agencies in effective programs. Broader community programs deriving from study-action effort undertaken among the various agencies suggest an avenue to pursue.

Voluntary associations have varied means of obtaining financial support in the performance of the many functions which involve them in the money-price system. At least three types can be delineated. First, various membership associations raise part or all of the money they need through dues. Second, agencies of several types raise part or all of their money through gifts--for current expenditures, capital improvement, and/or income producing endowment. Third, notably private nonprofit agencies, raise part or all of their money on a self-sustaining basis through fees, including fees for service, tuition fees, changes, and such. Financial support for voluntary nonprofit associations comes thus through money voluntarily paid to them for what they do, either for the donors or for others.

The decision-making locus is usually formally prescribed and fairly definite--authority lies in the board of trustees. Such boards have shown considerable variation. They may be self-perpetuating, having within themselves the determination of their future membership, or they may be elected by and responsible to a larger membership body. They may have relatively narrow powers because major decision-making functions lie in a superior board outside the community, or they may have rather broad or even exclusive powers to determine local policies.

Warren (1972) cites evidence to support the general statement that in American communities the boards of voluntary associations are made up predominantly of upper and upper middle-class people and of

people who have important positions in the industrial or governmental hirerarchy, or of people who "speak for" or "represent" them.

The voluntary association, as a generic type, includes various types of ultimate authority. In nonprofit corporations having a "membership" the members usually are acknowledged as the ultimate authority, the officers and boards acting as their delegates. Some social service agencies, while made up of "members" delegate power to the elected board. In a cooperative, those who are served by the unit--the customer-member--also constitute the unit's ultimate authority as signified by shareholding.

Voluntary associations are social units with structural organization which normally intend to endure through time. In the process they adapt to impacts from the environment attempting in some way to accommodate the impact while preserving the system with a minimum of modification. Various types of impact can be made upon them from their community environment in order that their behavior may be modified along lines apparently presumably consonant with the goals of the local community being the more inclusive social system. Such is the social control problem, in this instance, the community's exercise of social control over various types of social organizations.

Government tends to have the power of coercive control, though in the United States generally not without a prescribed formalized route of recourse. Other types of community units may exercise other and various kinds of social control.

Voluntary institutions, such as schools and colleges, and other nonprofit corporations, are chartered by the state. Religious organizations come under state laws and are granted corporate status notably evident in its tax-exemption clause.

Along with the more formal controls operating through law, social control takes other forms via informal aspects, including pressure of public opinion, the influence of gossip, praise, blame, and so on. These informal pressures, along with local custom and norms, operate directly on the decision-making of individuals as they function in roles of family and neighborhood members.

In the case of formal voluntary associations community control can be exercised in the additional formal methods.

To the extent that a voluntary association depends upon gifts, whether for capital expenditure or for current operating expenditures, control can be exercised through making, or withholding, or rechanneling gifts by community members. It is little wonder that attempts are made to influence this control channel for whoever controls such a vital life-force of patterns of contributions controls their fate.

Patronage is yet another type of control over voluntary associations. An agency may endure or fail on the basis of the referral behavior of the relevant professional people who are in a position to control the flow of clients to its doors. Individuals can decide to go elsewhere. A local membership association may be destroyed through the lack of members.

Voluntary agencies offering programs and/or services at fees or charges come under the aggregate: customer behavior. The totality of individual decisions to purchase or not to purchase a particular service may have life-or-death significance. Customer willingness to purchase at a certain price, or at a specific location, or of some quality will influence current and long-term policies.

In addition to participants, agencies may be dependent upon the local community for its labor supply, without which it could not operate. Thus, by choosing to work elsewhere, or not to work, control is again exercised.

Theoretically, the community exercises powerful control in that in most instances a choking of its gift-giving would mean the demise of the unit. If brought under national control it might be administered (1) on the basis of the extent to which the functions which the agency performs actually are given high value by the community people, and (2) on the basis of the efficiency with which the agency was actually performing its announced functions. Most announced functions of social agencies are given a relatively high degree of approval and positive value by the people of American communities.

However, the extent to which these agencies actually perform these functions is somewhat difficult for community people to ascertain, and the efficiency with which they do so is even more difficult to determine.

Gift-giving patterns are, therefore, influenced more by the emotional appeal of the "cause" for which the agency is working or the purpose which it is presumably serving than by the efficiency with which the agencies perform their function.

Efficiency is a matter of the economical employment of means to accomplish stated ends. The most efficient utilizes the least energy to accomplish a task, thus utilizing the least labor and capital. Accomplishment of the task and the efficiency of the auspices are both important facts for intelligent decisions about voluntary social agencies which usually are not available. For them to be viable it is not, in fact, necessary for them to be efficient.

The institutional answer for applying some degree of rational intermediate control between the donor and the voluntary agencies is the development of community chests and united funds. The united fund perhaps exercises much less rational control over the allocation of gifts than might be apparent. There is little evidence that the money "will go where it is most needed," nor are people willing to say in advance, in abstract or in concrete, where it is "most needed." Under most federations existing inequities in the distribution and power are frozen. Somewhat dubious is the claim that a limited fund can allocate funds to all agencies on a more equitable, rational, and useful basis (Seely, et al., 1957).

Unresolved apparently is whether the chest ought to conceive of itself as an occupying army levying what it needs while provoking as little rebellion as possible, or to conceive itself more on the model of an instrumentality of local desire, registering rather than manipulating public opinion, expressing forces rather than molding them (Seely, 1957).

The behavior of businessmen in policy-making positions on profit-making boards may be different from the behavior of these same

men on the board of such a non-profit association as the Community
Chest. Seely offered the hypothesis that activity on such an agency
board offers businessmen

> a kind of relief to their everyday occupations in much the
> same manner as play serves as a relief from work. Participa-
> tion in welfare agencies permits "innovation, invention, free
> wheeling imagination," the elaboration of plans without any
> proximate check on their success or responsibility for their
> failure, and, in general, generous allowance for spontaneity,
> color, romance and even, upon occasion, some permissible
> clowning (Seely, 1957).

As an alternative explanation, the community chest is an
attempt to impose rational-bureaucratic coordination across community
agencies--the horizontal axis: task accomplishment of activities
within a segmentalized field.

If minimal systemic relationships among units on the local
level are to be maintained there will arise tendencies for the employ-
ment of measures through deliberate, planned, coordinating systems to
contain these centrifugal forces, albeit involving some difficulties.

Because it is difficult to judge agency effectiveness and
efficiency, there is the tendency to have gift-giving based almost
exclusively on such extraneous factors as the (a) pressure of friends,
neighbors, or other individuals or groups in extracting money from the
individual for one cause or another, and (b) the emotional appeal of
these respective causes.

Is the ability of the agency to extract gifts directly from
donors or through the budgeting procedures of the community chest a
relevant mechanism for control over these voluntary agencies by a
community?

Development of research activities may make it possible to
assess the extent to which agencies are actually performing their pur-
ported functions. Several questions receive focus: "Does the agency
actually reach the clientele which its avowed purpose calls for?" and
"What impact does the agency have on the clientele it reaches?" or
"Does the program have any measurable positive effects which can
justly be attributed to the program rather than to extraneous
factors?" Without careful evaluational research, the agency's

response may simply be: Give us more money, for the problem is even greater than we thought!

Some Implications of Auspices

Each type of auspices ultimately has its own type of amenability to local controls, and each involves its own set of advantages and disadvantages. Considerable confusion is often caused in local appraisals by the application of types of evaluative measures to the performance of one set of auspices which are best appropriate only to a different set. A frequent instance of this misapplication of evaluative criteria is the use of a profit-and-loss type of reckoning in activities for which this reckoning is largely inappropriate.

It is apparent that do-it-yourself activities of the family like various neighborhood activities have an economic aspect which in one sense brings them into the market place and makes them comparable to similar activities performed under different auspices. Many activities could lend themselves to a type of market analysis, even though this analysis does not quite fit the entire operation. Voluntary associations must keep accounts, disperse funds, hire personnel, make purchases, and in other ways act as part of the market system. Yet their very functions are functions more appropriately performed by these auspices than by profit enterprise. The rationale for such decisions may be in the assumptions that they have other aspects which should be included and which might be inappropriate or even neglected if performed for a profit. If this results, cost figures while in part relevant, are not in themselves the most important consideration. As with mental hospitals, they use up money rather than make a profit. We might gauge the value of hospitals in terms of how much they assist the society to function efficiently, in terms of how much they assist in bringing about growth and change in patients. The community is also likely to evaluate hospitals in terms of the cost of patient care, but this does not measure its integrating functions-- protecting society and treating patients.

The consumer cooperative movement is founded on the assumption that consumer outlets should provide other functions than solely the selling of consumer goods for a profit. Educational and associational values are given special stress in this type of voluntary auspices, along with distribution of profits to customers, and a voice in policy-making through share holding.

It can be indicated that:

1. Various functions can be performed by different types of community auspices.

2. According to which auspices performs them, sources of funds, formal locus of decision-making, ultimate authority, and community controls over the performance of the function will differ.

3. In the absence of other clearly defined and measurable criteria, the ability to make a profit or the ability to perform a function at low financial cost tends to become the sole criterion for evaluating the efficiency of the operation, regardless of which auspices performs the function.

4. Thus community controls over performance of locality-relevant functions are made difficult by the absence of adequate standards of evaluation, or by the application of profit or cost criteria to functions where such criteria are not relevant.

Significance of Voluntarism

The trends and changes emerging in the world of voluntarism indicate that this is becoming one of the major means of providing human services. Agencies and institutions, both private and public, are extending their activities, programs, and services through a greatly increased use of volunteer manpower. There is an implication for the development of teams of volunteers and para-professionals working with professionals to extend services. The role of the professional is tending to become that of a manager, an in-service trainer or consultant to team members, a leader of planning and evaluation, a coordinator of the teamwork of those working with him or her. In this role, instead of giving direct service to clients,

a professional is giving direct service to members of the team. Some recognition has been given to the career ladder of voluntarism, which encourages moving from one job level to another, in some cases to paid career jobs, and in others performing those formerly labeled professional.

In the U.S., new settings opening to volunteers are various roles in the field of corrections, educational activities in the public schools, planning and urban renewal in city and state government, the "Hot Line" movement with over-the-phone counseling. Clients of agencies in some cases are becoming volunteers. Volunteers are seen in temporary and ad hoc committees. Some agencies will include budget items for incidental volunteer expenses. In other instances, both local and national organizations may provide for the cost incurred by the volunteers. Paralleling these trends is an emphasis on the importance of training for the volunteer and the training of volunteer trainers. An increase is also noticed in the use of behavioral scientists as consultants to assist with the training programs.

A recent development of some significance is the emergence of autonomous volunteer movements supplementing the traditional agencies and institutions. Various types of action and process groups have mobilized volunteer effort--such as protecting consumers from unfair practices, "watchdog" programs, consultations, and educational services. These voluntary cause groups are grass roots organizations often energized around specific social issues and frequently having a high mortality rate or short life span because their causes are temporary ones. They are able to take risks that many of the establishment organizations cannot take, because the viability of these voluntary cause organizations depends upon continuously meeting needs of members, rather than organizational needs per se. By and large, they tend to be poorly funded and understaffed, tending to be highly suspicious of establishment help and demanding that "outsiders" take an advocacy role; not unlikely they find it hard to collaborate with

other groups which have similar goals and come from other racial,
regional, and economic levels.

The efforts of participation by volunteers in new areas and
promotion to new levels of responsibilities are met in some quarters
with cautiousness, resistance, and rejection. Traditionally, there
are very distinct and complex separations between the professional and
the volunteer. In pursuit of a higher quality of professionalism, pro-
tective associations seek to maintain standards and clarify the
boundaries of professional competence. The increase in ambiguity
about competence can easily increase the professional's resistance to
extending fuller participation to the volunteer. With much less con-
tact between the professional and the client, the professional
loses the immediate interpersonal reward that flows from the response
of clients. Some individuals may thus feel threatened by the volun-
teers' moving into such direct contact with clients. Considering the
trend to become more of a trainer and consultant to teams of volunteers,
the professional is likely to become aware of his or her lack of back-
ground and ability to be a trainer. Feelings of incompetence may
lead to further resistance of programs of volunteer mobilization.
Changes in the professional curricula are slower than changes in the
outside world. The local volunteer, therefore, may have more relevant
information and skills than the professionals. And this, too, may be
viewed by some as a threat to professionalism and to resist maximum
utilization of the volunteers.

Volunteers, too, may be becoming more articulate about their
expectations, their status and their assignements. The newer, more
autonomous cause programs may provide greater excitement, more free-
dom from restraint, and wider opportunities for meaningful participation
than in the tradi, onal volunteer roles and agencies.

A frequent determination of program priorities and client
populations, plus a reluctance of interagency sharing, tends to
develop a highly competitive orientation and a possessive attitude
about "our clients" and "our volunteers," perhaps hampering the most
complete appropriate use of the available volunteer manpower.

The different types of roles and opportunities would indicate
the importance of finding ways to match the volunteer to the most
appropriate opportunities and situations, to take account of individual
differences in need for support, and to consider shifting roles and
working situations to accommodate the changing abilities and interests
of the individual. Awareness of the potential "motivational shock"--
those discrepancies between expectation and reality so frequently
attributed to unreal expectations in recruitment--would avoid a
major source of disappointment and discontent.

Whereas attention to the major motivational factor for volun-
teers is the opportunity to participate in problem-solving and significant
decision-making, the motivation of the professionals to give priority to
work with volunteers will be strengthened if the organization policy
makers and administrators establish a climate that shows that they
value the use of volunteers and encourage the devotion of professional
time to recruiting, training, coordinating, and consulting with volun-
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CHAPTER XI

SUMMARY AND CONCLUSIONS

General Findings

On the basis of work completed and in process, and from pre-
liminary analysis of the eight families of cases, numerous general
findings appear to be warranted. They are presented as preliminary
and general. Much further analysis and more comprehensive and
disciplined surveys will be required as we move to explicate and test
them.

A. General functions in terms of participant changes appear to be:

1. Acquisition of new information related to production systems,
   industrial jobs, community improvement and personal and
   family living conditions.

2. Learning of new and/or improved skills related to production
   systems, jobs, communication, and improvement of living
   conditions.

3. Increased ability to plan and manage personal, production,
   family, and community affairs.

4. Increased individual and group openness--will seek informa-
   tion and other knowledge relevant to a given problem; able
   to generate own knowledge through certain simple procedures;
   and willingness to change.

B. Within family analysis of cases, differentiated by mission and/or
   sponsor, reveals more specific NFE functions which they perform.

   1. Agricultural Development

      a. Introduction of new materials, seeds, procedures

      b. Transmitting information relating to production,
         processing, marketing, credit, etc.

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c. Teaching new and/or improved technological skills

d. Teaching farm and home management

2. Family Planning

   a. Training of local change agents

   b. Teaching childcare practices and concepts

   c. Teaching decision-making related to family size

   d. Teaching reproductive process

   e. Teaching procedures/techniques of contraception

3. Literacy

   a. Teaching basic skills of reading, writing and arithmetic

   b. Communicating work-related, family-related or other functional information

   c. Showing different sources of information

4. Health and Sanitation

   a. Teaching concepts and practices of hygiene

   b. Training of professional and para professional personnel for community practice

   c. Teaching concepts and practices of health care

   d. Constructing or introducing needed facilities

   e. Conducting immunization, nutrition and similar programs

5. Extra-Mural Studies of Schools, Colleges and Universities

   a. Training of various groups with required functional information and skills

   b. Disseminating functional knowledge and information chiefly through consultation, publication and broadcast media

   c. Sponsoring of and teaching for continued professional education

d. Sponsoring of and tutoring for certification or examination programs

6. <u>Voluntary Associations</u>

a. Teaching religious education

b. Sponsoring or supporting community development

c. Promoting better human relationships

d. Promoting a wide range of vocational, family, political or other learning and action projects

7. <u>Armed Forces</u>

a. Training in military science

b. Sponsoring or operating general, vocational and professional education for enlisted personnel

c. Conducting literacy, agricultural, engineering, health and other training and action programs with and for civilians

8. <u>Industrial Manpower Development</u>

a. Literacy education

b. Pre-vocational training

c. Training for specialized skills

d. Induction training for industrial work

e. Supervisory training

f. Executive and management development

C. It was noted that a majority of the cases examined lacked self-consciousness of their function as a non-formal educating entity. The eight families of cases have been analyzed using six of the descriptor elements mentioned in the definition of NFE. The composite profile of the cases has revealed a series of shared features:

1. <u>Mentor Sub-System</u>: Consist of professionals, professional aides and para professionals, of foreign and domestic change agents, including indigenous resident change agents. Effectiveness is determined strongly by possession of technical knowledge and skills, social and communication skills, and organizational ability.

2. **Participant (Clientele or Student) Sub-System:** Mostly voluntary; wide range of variability (illiterate men and women, peasant farmers, local leaders, factory workers, experienced practitioners, professionals) but largest numbers have low level of education, low income, live in rural environments and are in subsistent sectors of national economies.

3. **Content Sub-System:** More problem or need oriented; less theory, more technical solution; less on how knowledge was generated, more on findings. Organization of content is more integrated, rather than isolated or compartmentalized/departmentalized; more operational rather than conceptual.

4. **Mediation Sub-System:** There is more use of real or actual materials rather than representations; more direct experiential rather than vicarious. Setting or locus of instruction is more situated within physical and social realities of daily life rather than removed or artificial; more use of combination of channels of communication or of techniques of instruction than restriction to written and spoken words.

5. **Mission Sub-System:** More productivity or problem oriented; heavy on technological change; more short range rather than long range; service oriented.

6. **Sponsor Sub-System:** Mostly bureaucratically (government, industry, church, etc.) sponsored or sanctioned, often with assistance from international bodies and local voluntary groups. A lot have multiple-sponsorship. Other than the bureaucratic sponsor most other sponsors are temporary.

Conclusions and Hypotheses

At this point in our survey of cases we have identified, at least tentatively, fifteen generalizations about NFE. Some may qualify as conclusions; others are advanced as hypotheses.

1. Four distinguishable, but not mutually exclusive, NFE program patterns have emerged from the survey:

   a. Programs that employ NFE as substitute or supplement for more formal approaches in training of professional workers and other leaders--e.g., training of medical personnel, professional aides, change agents, local leaders, managers and administrators.

b. NFE systems and techniques employed to improve the performance or functioning of existing service oriented programs--e.g., application of communication concepts and analysis in agricultural extension operation; use of modern instructional materials for teaching concepts in family planning, nutrition, health, etc.

c. Programs or movements that embody particular ideologies of education--e.g., Freirian notion of education for socio-political-cultural-environmental consciousness, Tanzania's education for self-reliance, life-long learning, total learning, society, national learning system.

d. "Add-on" activities or functions to existing organizations or institutions, e.g., the employment of the armed forces as sponsor or vehicle to help in the implementation of a NFE program; the use of department of health as organizational locus for a new family planning program; the use of the department of education to help promote, teach, implement functional adult literacy.

2. The cultural value system, traditional institutions, and local network of communication have salient and compelling influence on response behavior of participants in NFE. The implication is that the change agent must strive to establish a fit between existing social structure and the new NFE elements--processes, innovation, mission, methods and media in NFE for high clientele participation and desired change. This conclusion further reaffirms the findings of a large number of studies in rural sociology, communication, anthropology and social work.

3. The use of local individuals as change agents, professional aides, or paraprofessionals was employed by a number of programs and the results have been generally positive. It is posited that these local individuals, in effective interaction with professional change agents, can be extremely effective program personnel in NFE at the local community level because of their knowledge of the local communication system, their sensitivity to traditional taboos and norms, and their existing social links in the community.

4. A precursor project is imperative before formalizing and launching a major NFE program. This intermediate step performs the functions of: (a) testing the system for local adaptability by exposing it to local constraints, (b) generating significant local

information and understanding needed for effective operation,
(c) demonstrating local feasibility of ideas, materials, etc.,
(d) training of local individuals, and (e) serving as a rehearsal,
thereby identifying implementation problems and bottlenecks as well
as the elements that make a system work.

5. In NFE there are certain topics or issues, particularly
those with high local salience, that can best be handled in group
situations. It is suggested that group settings can be more effective
in changing people's attitudes because of the power of concensus, of
social verification, of mental rehearsal, of social support, and a
greater amount of local information given and exchanged. In addition
this approach will allow the local leadership structure to maintain
credibility and function in the community. This conclusion supports
previous works in persuasion, small groups, group dynamics, and rural
sociology.

6. The choice and employment of communication channels is
consequential to knowledge acquisition, changing attitudes, and
facilitating behavior change. It is proposed that certain channels
of communication are more appropriate for certain desired effects,
e.g., group discussion is more effective for changing attitude; and
radio is more effecient for transmitting information for immediate and
wide reception. It is further suggested that the larger the number
of channels used and the more they are integrated into a systematic
communication program, the more likely will the program be effective,
all things being equal. Earlier diffusion studies conducted cross-
culturally, conclude that a combination of mass media and interpersonal
channels result in maximum communication effect.

7. Promotional or informational campaigns of and in NFE
basically involve the process of communication. For maximum impact
it is suggested that critical subsystems be considered not as
independent but as interacting and interdependent entities. These
subsystems are: (a) desired effects, (b) receiver, (c) channels,
(d) message, and (e) source.

8. Motivation of participants and sound communication design account for a large proportion of the variance in learning effectiveness in NFE programs. This is aptly, although somewhat cynically, portrayed inthe following quotation:

> Communication is the art of telling someone who doesn't want to listen, something he doesn't want to hear, thus causing him to do something he didn't want to do before, and leaving him pleased with himself and with you for having done it.
> --Anonymous

9. Effectiveness of NFE programs is heavily dependent upon sound organization and managament. This affects personnel selection, preparation and performance, program operation, and interest in the intended participants. It is not uncommon for programs to be weakened or destroyed simply because of unfulfilled promises, e.g., when supplies don't arrive when they are needed, or lack of operational funds, or vehicles that can no longer run because of poor maintenance, or sloppy personnel policies, or poor coordination between headquarters and field operation. NFE is especially vulnerable because of its lack, almost universally, of stable institutional structures. This represents a dilemma, for the organizational factors which afford security are the same as those which must usually be relaxed to permit attainment of NFE missions.

10. A new NFE function can be added on to an existing organizational structure provided that the organization's technology, including skills and operations are related and compatible with the NFE function and provided, further, that the organization is functioning effectively and efficiently. Existing social organizations that traditionally exercise an educational function, either as a primary function or as an instrumental one, will generally have less difficulty in undertaking and sustaining NFE than organizations without a tradition in education.

11. A federal or any higher level system that controls funds can be an effective instrument for introducing or stimulating NFE through its policies, i.e., setting up priorities for resource allocation, standards, guidelines, and pre-conditions.

12. In any social system, an initial negative reaction against a NFE program is most likely to come from those individuals and entities who are already exercising a perceived function or activity similar to which the NFE program purports to undertake.

13. NFE programs whose agents are more competent in: (a) technical aspects of the work, (b) communication, (c) local organization, and (d) community and interpersonal relations tend to secure more community participation and more positive results.

14. NFE programs that get complementary and supplementary support from other programs and organizations tend to have more individual and community impact. It is suggested that organizational or institutional convergence on a problem creates a critical "density of forces" that facilitates learning and action.

Some Methodological Lessons

There will be an attempt in this section to identify, in retrospect, some lessons gained by the case study survey team from the present activity--case study survey research. Six lessons are listed below:

1. For a study in which a team is engaged, there is need for common working definitions, framework, and descriptors for use of all members of the research team.

2. An extensive case inventory is a necessary step before deciding what cases to take for in-depth investigation.

3. A set of criteria must be developed to guide selection of cases for in-depth investigation.

4. For a descriptive case study, confining the investigation to a few exemplary cases and then making an in-depth and comprehensive study will provide more valuable information than taking a larger number of cases that must be treated more superficially.

5. If the purpose of the case study is to identify lessons with practical or theoretical value, and not merely to describe the

subject by a number of attributes, the study must examine relation-
ships between dependent and independent variables.

6.   Ideally an investigation of case studies should not be
restricted to secondary sources.   At least some field investigation is
important to provide first-hand information that will yield a "sense
of fit" with the analytical framework which is to be employed by the
researchers.

APPENDICES

APPENDIX A

NON-FORMAL EDUCATION AS A FUNCTIONAL
COMPONENT OF AGRICULTURAL EXTENSION

By

Rogelo V. Cuyno

Introduction

Agricultural extension had been referred to in the adult education and continuing education literature[1] as the biggest and most impactful adult education program in the world. With the increasing attention given to a newly emphasized sector of education; namely, non-formal education, there is a need to connect the new movement to one of its most widely employed forms and to examine its operation in that form. This article attempts to briefly review the evolution of the concept and practice of extension in this country and how it is faring overseas where it has been transplanted.

There seems to be an inevitable linkage between these two movements. Depending on one's bias, it can be said that in this country Non-Formal Education (NFE) has been functioning since the very first Europeans settled in Jamestown and that agricultural extension, following many years hence, merely legalized or institutionalized the concept and practice in the field of agriculture. The other side of this is equally defensible, i.e., the concept, practice, and experience of this institution called agricultural extension as well as other related programs has pointed to the need to reformulate a new view of education which is now called NFE and incorporates a number of its features.

The article concludes with empirically based lessons that were observed and inferred to be operating in a pilot agricultural extension project in the Philippines. Hopefully these lessons will enrich our knowledge base of NFE. The observation was made as part of a doctoral dissertation of the author which was partly supported by the Studies on Non-Formal Education Project at Michigan State University.

The subject of the study was a three-institution cooperative pilot project in rice applied research and extension in the Philippines designed to (a) test performance of a number of materials, seeds, and practices developed at the International Rice Research Institute (IRRI) in upland and rainfed conditions; (b) identify the problems and

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difficulties attendant to the application of these technologies under·
constraints that farmers face; and (c) to test a scheme in rice
extension in which the usual bottlenecks of the agricultural extension
system in the Philippines and the rest of Asia are to be corrected.

The cooperating institutions were the International Rice
Research Institute, the agricultural extension bureau in the
Philippines, and the Philippines national planning and coordinating
agency for food production.

The primary purpose of the research was to study the formation,
behavior or conduct and performance of a type of temporary social
organization namely a cooperative pilot project, in agricultural
extension and development. The terms cooperative and pilot project
are underscored because the study is concerned with institutional
cooperation in a pilot project.

Agricultural Extension Before and Now

The original concept of agricultural extension, as known in
this country and as written in the Smith-Level Act of 1914 refers to
the dissemination of useful farming and homemaking information from·
the land-grant institutions of higher education to the ultimate end-
users, the farmers and the homemakers. Through the years the concept
and practice of agricultural extension has evolved from mere informa-
tion dissemination and service to a more educational one. The early
fathers of agricultural extension were concerned at that time with
increasing productivity of food, fibers and other agricultural
products to feed America's growing urban population and to improve
the living conditions of the farm communities. Pressure from the
non-farm and the farm areas created some sense of urgency to
institutionalize agricultural extension in the states and to locate
it in the land-grant institutions.

As agricultural knowledge expanded, as more university
trained agents were employed by agricultural extension, and as
farmers became more sophisticated the conception of agricultural

extension in the United States evolved from information orientation to people development. Although still carrying the original name, the philosophy has undergone some transformation. This transformation is reflected in the popularization of the concept of "extension education." Productivity as a goal, like in the early 1900's, is still important and continues to be the principal rationale for the system. The difference, however, is in the regard of productivity as more of a means to achieve a higher level and profound end state, that of "helping the clientele in their life setting to improve its physical, biological, economic and social qualities."[2] To achieve this objective will still require, as in the early life of agricultural extension, new information and new technology. Science continues to produce new ideas, materials and procedures that are found to be useful.

As knowledge in the agricultural field grew so did alternatives. As the farms became more business orit`ted and complex, the problem became not just to produce but to manage the farm. Thus the emphasis of agricultural extension programs in the modern time has become management, decision-making oriented. Decision-making may be defined as intelligent choice of action from among several alternatives using a rational set of criteria. Intelligent action in modern agriculture requires that the actor understands the relationships of each practice to other related ones.

Let us move our discussion to the LDC's where this great American invention namely, agricultural extension, has been transplanted. The idea was transported as part of the U.S. technical assistance program with the belief that new knowledge and technology are required to make the farming sector in the LDC's more productive and efficient. Thus agricultural extension was used as an instrument of national development. One assumption was that national development in a country that is predominantly agrarian can only occur if the farming sector is modernized and made more productive.

The fact that the agricultural sector in the LDC's is still largely traditional and that food shortage in these areas is the rule rather than the exception, has been used as evidence of failure of the

agricultural extension concept. Some thoughtful scholars and observers, however, don't fault agricultural extension for'this situation. A number of reasons have been identified as the root causes for this failure, none of which are inherent to the concent. These reasons are: "improper conceptualization of its role, inadequate staffing (lack of technical and extension-communication competence and motivation, etc.), ineffective coordination with research centers and training institutions, lack of provision of useful technology and requisite physical inputs and environmental conditions essential to successful performance."[3]

Despite the negative image that agricultural extension has had in the LDC's, there are reports and observations that farmers behavior is changing and that the structure of the farms is gradually changing too. A Philippine rural sociologist[4] recently reported that in the Philippines, rice cropping patterns are changing, local traditional practices are disappearing, farmer's alertness and wantingness to know new information is becoming apparent, farmer's aspirations, expectations, and perceptions are increasing, entrepreneurial behavior is starting to shape, and farmer's associations are functioning for the first time. If this report is true, we can infer within reason that the long and painful process of education in agricultural extension has finally started to manifest.

The Coming of Non-Formal Education

In the past five years another idea of education has emerged from the horizon. It is called non-formal education. The popularity of the idea is largely caused by the interest generated by international donor institutions notably the USAID, the UN, and the World Bank in their search for assistance alternatives to alleviate the living conditions in the LDC's. It is taken as an article of faith, particularly in the west where its benefits have been felt and also being recognized by the leaders in the LDCs, that education is a powerful force that can induce development. Unfortunately, the present form of education (the formal schooling system) has failed to reach the majority of the people

in the LDCs and that a number of those who are or had been in it are
disappointed with its promises. So this current movement (NFE) in
international assistance and education is regarded as an attempt to
provide some kind of functional and relevant educational experience to
those who are not currently being reached by the formal system of educa-
tion including those who had been in it before. Program-wise the
thrust of NFE may take any or a combination of the following:
(1) Programs of non-formal education designed to increase food produc-
tion, train local mechanics, train local family planning agents, etc.
Here NFE is used as a method to teach science, technology, knowledge,
skill, etc. (2) Programs to enhance the performance or functioning of
current programs in agricultural extension, family planning, health and
sanitation, etc. by applying knowledge and technology of education.
Here NFE is treated as one of the functional components of existing
programs. (3) Programs of a different type of education--more
functional, more localized, more problem oriented--that will suit those
who are now neglected by the formal system of education. Here NFE is
viewed as an "ideology," a different thinking or philosophy of rural
education. (4) Programs sponsored by government and private sectors
as part of a concerted effort of a total national teaching-learning
system designed for its members as well as for their different publics
or client systems. For purposes of this paper, let us adopt the follow-
ing definition of non-formal education:

> It is any intentional and systematic enterprise, usually
> outside of traditional schooling in which content, method
> of instruction, time units, admission criteria, staff,
> facilities, and other system components are selected and/or
> adapted to serve particular students or situations, to
> maximize attainment of specific learning missions.[5]

The universe of NFE outcomes includes: learning and development
of skills, knowledge, techniques, procedures, and the attendant value
system, in the farms and homes, and in youth or adult activities. It
includes as well, training in the military, and in social and practical
organizations, on the job in private industry and in natural environ-
ments.[6] For specificity let us list some of the current programs in the

LDC's and in the more.developed countries (MDC's) where NFE is con-
sidered consciously or unconscious'y as a functional component:

1. Agricultural Extension
2. Family Planning
3. Urban Renewal
4. War on Poverty
5. Improved Nutrition
6. Race Relations
7. Community Development
8. Religious Education
9. Trade and Labor Unions
10. Vocational Training
11. Literacy
12. Health and Sanitation
13. Consumer Education
14. Military Training
15. Industrial Education
16. Small Scale and Cottage Industries
17. Manpower Development
18. Family Life
19. Cooperatives
20. Others

It seems to me that it is useful to get an understanding of the
nature and character of the teaching and learning process that is going
on in the above programs and situations. I believe that there are
basic underlying elements and processes in all of them that need to be
identified and understood so that their planners and implementors
could apply that knowledge toward greater achievements of the goals set
by these various programs.

Andragogical Lessons from
Agricultural Extension

My recent field study in the Philippines of a cooperative pilot
project in rice applied research and extension has provided empirical
support of a number of principles related to andragogy which adult
educator Malcolm Knowles defines as "the art and science of helping
adults learn."[7] We preferred to use the language of adult education
because the subject that we are concerned with here are adults and that
the program studied involved adult population only. One can argue
that some of the principles also hold for youth or even for younger
children. I won't argue against that. In fact the so-called modern

trends in education in American schools, including the universities, appear as being quite intimately familiar to writings in adult education. The other sources that we drew from as frames of reference are studies and writings in educational psychology, communication, philosophy of education, continuing education, and educational technology.

My previous work experience in agricultural extension and my being a student of it, including this recent field study, led me to conclude that inherently agricultural extension is a very fertile and hospitable ground for the application of concepts and principles in the behavioral and social sciences. Based on this I postulate that the teaching-learning process that is going on in agricultural extension is of a high quality and effectiveness for the following reasons:

1. The teaching and learning locus is close to the point of use thereby insuring and facilitating knowledge, skill, procedure transfer.

In agricultural extension a farmer is taught new practices that directly improve his existing one, right in his own farm, environment, using his own tools and materials. There are two other dimensions of closeness--time and need relevance. In agricultural extension, such as the project studied, new practices like seed-bed preparation, control of pests and diseases, proper kind and use of fertilizers, use of granulated chemicals to control weeds, etc., are taught (a) in accordance with the rhythm of biological growth stages of the rice plant, and (b) coincides at the time when the farmers are supposed to be anxious to do something to his crop. In a general sense the content of teaching in extension is based on farmers' problems originating from certain real and immediate needs.

2. The teaching-learning process is more involved and experiential and in keeping with the principle of "learning by doing" which is the best mea... for learning skills and methodology.

A case in point is the learning of a set of techniques of a particular system of preparing a seed-bed. No amount of lecturing, or use of instructional material and aids, or group discussion, etc., could have taught farmers to do the job properly without damage or harm to the seedlings. The only way a farmer could master the techniques involved is by actually seeing how they are done, actually doing them on his own with guidance from the more experienced neighbor, friend, or extension agent.

3. The so-called teachers and learners usually have common referents for symbols and codes that are used in the process thus facilitating effective communication between themselves.

Referent here is defined as the physical objects, matters, things being represented by linguistic codes and other forms of symbol system. The communication between an extension agent and farmers is generally effective because their subject matter is focused, vivid and about that which they have both experienced, seen and done. If an extension agent meets a farmer-cooperator by chance in town and he asks the farmer about what he did to the fertilizer or chemical that he was supposed to have applied the previous day--they know exactly what they are talking about in terms of the material, the instruction and the general context. Their referents then are common. Any deviation in this regard can be easily corrected by actually showing or going to the referent.

4. The learners attention and responsiveness to a particular teaching-learning instance is generally high because the teaching-learning is need and problem oriented.

This is somehow related to principle No. 1. The relationship between motivation and learning is pretty well documented. Motivation is defined as a force that releases energy and seems to originate from a need, translated into a demand to solve a particular problem, in order to reduce or satisfy the need. A farmer whose field is heavily attacked by rice stem borers is anxious, attentive, and will ask questions to someone who is known to have an answer to his problem.

5. _The field is the classroom. Teaching and learning materials are real and actual not synthetic, made-up or contrived, thus facilitating understanding and assimilation of knowledge._

There is a story about a peasant in Africa who did not take seriously the warning of malaria spread because the giant mosquito carrier that was graphically shown to him in a poster was not real to him. He was supposed to have said "I'm not so concerned with that, I don't think we have a mosquito in our village that big." In this present study groups of farmers are brought to experimental plots and shown performance of different varieties and explanations are given of certain unusual behaviors of plants. Instead of dealing with abstract or symbolic representations, the teachers, in this case the extension agents, use real and live objects.

6. _The reward and gratification of teaching and learning is more immediate not delayed; more meaningful because of its relationship to need; and not administered or controlled by an external body or establishment._

A farmer finds immediate gratification to see harmful insects knocked down by his spray. Reward in agricultural extension is not the promise of a grade, or a diploma, or of a job in the future, but it is found in the effectiveness of the solution that is brought to an immediate problem.

7. _There is greater opportunity for more individualized teaching-learnings; learners are able to learn at their own pace without necessarily following the "drum played by somebody called the teacher"; learners learn as autonomous individuals and not as an element in the normal distribution._

When a farmer attends a seminar or a field trip he attends to messages selectively based on what is meaningful to him. The control of what to acquire therefore rests on him. When an extension agent visits him in his home or on the farm, they talk about happenings in his own field. A farmer knows what to learn and he usually does, because he wants to satisfy his own needs.

8. <u>It is usually a more accessible system to learners since</u> <u>entry is generally not contingent upon many rigid requirements.</u>
Unlike in the more formal system of instruction where certain entry behavior is required for participation or where certain dues are imposed, in agricultural extension, one is unimparedly welcomed to attend an activity, a program, a field trip, etc., and without fee obligations.

9. <u>It is a more flexible system. A teacher doesn't have to</u> <u>use a single teaching plan, for a single group, in the same location;</u> <u>and he is confronted with new subjects all the time by his learners,</u> <u>the environment, and new technology. There is also greater opportunity</u> <u>for media or method complementarity.</u>
The set of practices that the extension agents were promoting last summer in Bulacan province in the Philippines were distinctly different from previous years. Field problems shift and technology is being revised constantly--thus requiring agents to change their programs continuously. This illustrates the need for flexibility of the system of agricultural extension.

One other dimension of flexibility is with respect to teaching-learning methodology. Unlike in the more structured teaching situation where sometimes certain content or objectives of teaching rigidly determines methodology, in agricultural extension the opportunity for combining techniques and situations is limited only by the imagination of the teacher. In the project studied a combination of the following methods were employed: farmers "teach-in," field tours, field days, radio broadcast, leaflets, posters, bantings, personalized visits, method demonstrations, result demonstration, use of farmer leaders, and a supervised credit program.

10. <u>The learners as a group have a lot of commonalities to</u> <u>share and talk about, thus they are generally more active participants</u> <u>in the process and have a greater communityness among themselves.</u>

In observing and participating in farmers' classes and meetings last summer one thing has once more impressed me. This is the extent of participation and involvement farmers have in these gatherings. It may be a little difficult to break the ice for discussion or questions but once broken the group invariably proceeds with gusto and enthusiasm. This process of intense discussion in a group situation serves a vital function for the community and for the farmer-decision makers. This represents a trial process where new ideas are heard and quizzed. Farmers who have tried new ideas or products--a new variety, a new chemical or a new technique of fertilizer application, serve as witnesses supporting or discrediting the new introduction. Through this means the group is able to multiply the knowledge and experience that the community has on any new element introduced in it. Concensus unconsciously operates in this process. New ideas could either get approval and legitimization or censored and killed in this process.

11. _The social distance and status differential between the so-called teachers and learners is usually not explicitly and rigidly defined thus their relationship is more open, reciprocal and mutually affecting._

Agricultural extension is an example of a real adult education enterprise where adults discuss matters as adults, as co-equals, and in an open relationship. This is an illustration of what is known as dialectic process where participants are interacting, teaching and learning together and mutually respecting each other.

12. _There is generally more opportunity for localized teaching using locally generated information, local materials, and local indigenous teachers, thus increasing: (a) the credibility of teaching, and (b) the validity of substance being learned._

Recent studies in diffusion of innovation and rural sociology have shown that contrary to earlier claims, peasant farmers do willingly change and adopt new practices provided they perceive the advantage and the workability of the practices. Thus farmers look for

local validation of any new practice. The project studied last summer captures this important element of testing, validation and demonstration. Information from the IRRI scientists are assembled to form sets of practices which serve as treatments of an applied experiment done on farmers fields and the farmers serving as research cooperators. In addition to generating local knowledge, where specific local environmental elements are considered, the applied research project serves as generator of locally trained individuals for the new set of practices. They also provide a lead time for the subsequent extension campaign because their visibility in the community makes them a subject of conversation creating general awareness and stimulating public interest.

13. There is generally more involvement and reinforcement by support systems in the total delivery system such as: national and local governments and agencies, private industry, volunteer groups, etc., thus creating a greater "density of events" so necessary for social action.

Agricultural extension as an educating enterprise has one advantage vis-a-vis another form of educating enterprise, namely the formal education system in that it often gets reinforcement and complement from other units of government or from other elements whose interests happen to converge with it. In the project studied this situation was aptly demonstrated. Institutions of planning, research, extension credit, agricultural supplies, media communication, technical assistance; government and private; local and international, converged on one province through formal and informal agreements to guarantee success of the program. Such concentration of institutions creates a critical "density of events," or forces, that trigger unified and collective community action.

NOTES

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4. G. T. Castillo, "Impact of Agricultural Innovation on Patterns of Rural Life," in Agricultural Revolution in South-East Asia. SEADAG International Conference on Development in Southeast Asia, New York, June 24-26, 1969.

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APPENDIX B

NON-FORMAL AGRICULTURAL EDUCATION IN NEPAL
A FIELD STUDY REPORT

By

William J. Kieffer

Introduction

The concern for national development has generated an interest in non-formal education in the last few years both within and without less developed countries. This study attempts to explore some of the characteristics of non-formal learning in the context of agriculture in Nepal.

The role of the farmer in the developing world cannot be over-emphasized, for he is at the center of both the problem of and the solution to feeding more adequately the world's people. The problem is that an overwhelming majority of Third-World agriculturalists are illiterate, suspicious of new crop production methods, and initially reluctant to change. The solution lies in getting agricultural information to those who need it, through the non-formal education network that exists as part of the cultural milieu. Exploring the learning patterns of a wide range of LDC farmers, from the barely subsistent to the relatively wealthy, reveals how farmers learn what they need to know about practical agriculture in order to survive.

The field exploration of non-formal education related to Nepal's agriculture was undertaken (in the summer of 1972) with some specific questions in mind: How do farmers learn agricultural skills? What are the internal and external sources of learning for farmers? What are the systems of non-formal learning? And what are the intervening inputs to the NFE system in Nepal's agriculture?

The focus of this study emphasizes the recipient system, i.e., the agriculturalists in the fields and patties of Nepal, and the variables that affect their attitudes and non-formal learning patterns. Although major attention is given to skills related to agriculture and the livelihood of rural people, attention is also directed to efforts of His Majesty's Government (H.M.G.) that are designed to improve food production.

Nepal: Features Worth Noting

Political

Nepal is a unique country, not only for its impressive geo-
logical relief, but also because it is the only Hindu kingdom in the
world. The political system is a panchayat democracy, with no
political parties allowed, and the king commanding much power and
authority.

The king is himself active in the affairs of state. He is a
young man and relatively new to the position--his father, King
Mahendra, died but a few years ago. And from outward indications, he
appears to be interested in developing the country; he has given his
support to various projects designed to promote change, for example,
the National Education System Plan for 1971-76, and a plan to
diversify development efforts to certain selected areas outside the
Kathmandu Valley.

The internal political situation is most fluid, however, for
the bureaucrats are unsure about the future of their positions in
government and are, therefore, more reluctant than usual to make any
decisions or take any actions they might regret in the future. The
government bureaucracy is being more conservative than normally is the
case, until it is known what the king is planning for them, their
positions, and their futures.

The government secretariat--the Singha Durbar--is a paradigm of
bureaucracy. There would be little hope for change if all were left to
Nepal's functionaries. And yet little can be done of any significance
without their support. The key to success for any plan or change is
to gain the active support of the king, then the bureaucrats will most
probably comply. (For a more in-depth analysis of some of the
problems facing Nepal's development perspectus, see Aaron Wildavsky,
"Why Planning Fails in Nepal," Administrative Science Quarterly, Vol.
17, No. 4, December, 1972.)

Because the new king is apparently quite concerned about
national development, any NFE program would have a better chance to

succeed if such a program gained His Majesty's support. The Nepalese government functionaries would become more conscientious if they knew that the king were personally interested in the success of some program and he were watching for results.

Economic

Nepal is one of the poorest countries in all of Asia. The main livelihood of the people is agriculture--the focus of this discussion. The topography of Nepal dictates where, when, to what extent, and the kind of agriculture that can be practiced. The impact of climate and land-form-structure are discussed in a later section of this report.

Supposedly, because of the mountains, the question is often asked about the mineral wealth and the possibility of exploring Nepal's natural resources. The major problem to developing whatever natural mineral wealth there is, is that of transportation. Most areas of the country are inaccessible but for foot-paths, making commercial exploitation impossible. The lack of an extensive road network, especially in the mountain areas, eliminates any serious consideration of natural resource development.

Nepal does have a minimal potential for light manufacturing, but compared to agriculture, the number of people involved and the wealth produced is presently inconsequential. Although light manufacturing may be a long-range consideration, agriculture and its further development is the major economic sector with the greatest potential.

Social

The single, most striking feature of the society is the caste system. Although the last king outlawed castes, they remain very much a reality in Nepalese life. Rather than pursue a detailed analysis of Nepal's caste structure here, I shall defer to other, more qualified sources.

That which should be mentioned regarding caste relates to the distribution of the various castes throughout the governmental structure. In general, the lower castes are greatly under-represented in government,

while the upper castes occupy most of the positions of power. The government is aware of this situation and is trying to improve the equitability of caste representation in government departments, yet there are problems with vested interests and ossified social mobility.

Relating caste to farming and the non-formal education network through which information is dispersed, the eight-week field study in Nepal was unable to detect any relationship between caste and farmer. That is, all castes are to be found among farmers across the country, with certain areas reflecting high concentrations of certain castes. The caste-farmer relationship was not a major focus of the brief field experience; an in-depth study of this relationship may prove interesting.

Variables That Make a Difference to Farmers and Their Learning Patterns in Nepal

Farmers in Nepal, like those in the rest of the developing world, operate in a milieu of variables that affect their trying to eke out a living. What are the main factors that influence Nepal's farmers, and what are the consequences of that influence on their learning patterns?

The two main parameters that become apparent while interviewing farmers in different locales in Nepal are (1) the "location" of the farm, and (2) the "category" of the farmer. Location is a natural classification, while category is a created one, but both are employed to understand better the phenomena being studied.

Location

Although Nepal is renowned for its legendary "Yeti" and the impressive Himalaya, it also has jungles where tiger, deer, and rhinoceros roam free. Nepal is approximately 500 miles long and 100 miles wide, lying between Tibet and India. The country contains within its boundaries an incredible topographical relief: the Terai at 600 feet elevation, Mt. Everest at 29,028 feet, and both less than 100 miles apart. The Terai of Nepal is a 20-mile wide strip of flat land along much of the southern border with India, while the northern portion of the country contains many of the world's highest peaks.

It is the southern area, and especially the Terai, that
receives the major attention of the extension service of H.M.G.
because it is the richest rice-producing area in the country, with
the greatest agricultural potential. The higher agricultural
potential of this area is primarily due to the amount of rain it
receives, especially in the eastern portion of the Terai. During the
summer monsoons, a seasonally continuous air-mass movement from the
Bay of Bengal to a lower pressure zone on the Asian land mass brings
highly saturated warm air over the flood plains of India and Nepal.
As this moist air mass is cooled adiabatically--forced up by the
physical landscape--the air is cooled, the dew point is reached, and
the moisture contained in the air condenses. It rains, and it rains
heavily in certain locations, such as the eastern Terai, and to some
extent in the central Terai and the lower mountain elevations of the
central and eastern Terai. The western Terai and western mountains
receive very little rain, making agriculture in these areas far less
productive.

Traveling from the Terai north into the mountains, one observes
that the mountain areas receive less and less rain as one goes farther
north. This is because during the monsoon as the moist air masses
coming in from the ocean are forced to higher altitudes and the
temperature is lowered, producing rain, by the time these same air
masses reach the middle range of mountains, much of the moisture has
already been dissipated at the lower altitudes. The result is that
the lower elevations and the eastern portions of the country receive
much more rain than do the higher elevations and western portions.

What has this to do with Nepal's agriculture and its farmers?
Simply, it means that agriculturalists whose farms are located in
high-rainfall areas are generally more productive because of the more
abundant water supply than are farmers located in the western and more
mountainous areas, which receive less rainfall. With higher production
comes greater return on investment and labor, providing capital for
reinvestment often in the form of more and better agricultural inputs.
Because land reform has had an impact, individual farmers have had more

reinvestment capital (otherwise drained away in increased rents), a situation that does influence a farmer's agricultural learning pattern. He has capital to improve and may very well be willing to try some new practice or new seed.

What other impact does location have on Nepal's agriculture? The Terai is flat, permitting easier movement of people, and with them ideas. Flatness also permits easier road construction, facilitating the movement of goods, accessibility to markets, and the influx of new ideas. Because of these and other factors, more agricultural research is conducted by H.M.G. in the Terai than in the mountains, and the extension service has a more intensive and extensive program here than elsewhere. Consequently, Terai farmers have a chance at greater exposure to new ideas, greater resources to take advantage of these ideas, and a greater likelihood of securing agricultural inputs--chemical fertilizer, improved seed, insecticides, and extension services--thus having a greater potential for the development of cereal grain production, which is the major emphasis of Nepal's agriculture and of the Nepalese diet.

The mountain areas, on the other hand, suffer from the lack of an adequate transportation network--most of these areas are accessible only by mountain foot-path. Supplies are carried to many mountain villages by porter, which becomes expensive since transportation costs (porter fees) can quickly exceed the worth of the cargo. Hill farmers are generally poorer than Terai farmers and are even less able to pay for these new inputs plus freight charges, so they suffer under a double handicap.

Motor roads in the mountain areas are few, yet farmers living near the existing mountain roads do not even have a reliable source of agricultural supplies, not to mention a checkered history of extension services in these areas.

In general, most of the mountain land is less productive than equal acreage in the Terai because of a less-reliable water supply, an unreliable source of modern agricultural resources, a less-intensive extension effort, a lack of mountain-agriculture research, and a climate that does not permit year-around production.

In addition to the Terai and the mountain areas, a third geo-agricultural feature of interest, but not at this time of great agricultural importance, is the cultivation in the interior valleys, viz., Kathmandu and Pokhara Valleys. The main characteristics of valley agriculture are an adequate monsoon water.supply for part of the year (enough for one rice crop), motor road transportation linking the valleys with India--an important supply source-- availability of markets (cities are located in these valleys), and extension services.

Farmer Classification

The other broad consideration is the classification of farmers into poor, middle, rich, or progressive groups. These groupings are somewhat arbitrary, created simply to make understanding of the human side of Nepalese agriculture more meaningful. These classifications are not discrete, but only relative positions on a continuum of wealth and to some extent expertise. The following definitions are not definitive, but sufficient to give the reader an idea of the characteristics of the various farmers found in Nepal's agriculture.

The poor farmer is usually illiterate, highly suspicious of outsiders (i.e., those not from his village, including the Nepalese extension personnel), experiences poor or no communications with the world outside his village, works land with a poor irrigation system, is without resources to buy or rent better quality land, does not usually own the land he works (but if he does, it is poor quality), is more than likely in debt, is forced to sell his land if unable to pay his debts, has little or no contact with extension services, is unaware of sources of outside help, has little or no direct contact with any progressive farmers in the area, has little or no personal experience with local organization (e.g., agricultural cooperatives), never has any "extra" resources for development, and is living in a desperate situation--often lingering on the verge of starvation.

The middle farmer is more stable financially--he may not be as far in debt as the poor farmer, and he may even have a small capital surplus--he may own his own land, but not necessarily. The quality of land he works is more important than whether he owns it or not; with fixed rents, the cultivator keeps increased yield resulting from better inputs and techniques. The middle farmer is more aware of what inputs may be available and the possible sources of help, but he is still suspicious of outsiders and their new approaches.

The rich farmer, by definition, has capital to invest in better agricultural supplies and labor. He has the better quality land and plenty of it; his fields are situated in favorable locations taking advantage of water supplies, and a more productive yield results in greater return for the investment. He simply enjoys the best that Nepal has to offer its agriculturalists.

The question of why some farmers are rich and others poor was asked of the farmers themselves during this field exercise. Their answers include such statements as: "Rich farmers have good land and much of it"; "Rich farmers have money to buy agricultural needs"; "Rich Farmers can plant and harvest at the right time"; "Rich farmers can hire help"; "Rich farmers buy good land with irrigation"; "Poor farmers have to sell their land when they need money"; "Poor farmers have to work for others" [i.e., the poor farmers who owe money to a rich farmer have to come to plant the rich farmer's crop when the time is right, and only when that is accomplished can the poor farmer return to his fields to plant his own crop]; "Poor farmers have land on the hillside and often suffer from landslides"; and "Rich farmers are helped by the extension service." The nature of these replies indicates an awareness of variables that make the differences: land, water, money, and knowledge.

The progressive farmer is a key individual in an area, for he is willing to try new agricultural practices to improve yeild and to pass along new ideas to other farmers. Progressive farmers are usually of either the rich or the middle category; they are sometimes

literate; they have an interest in improvement; and they are the
farmers with whom the H.M.G. extension service personnel work. The
progressive agriculturalist is used as an information-diffusion
agent between the government and the farming population.

Location and Category

To be sure, all categories of farmers are found in all areas
of the country, but the following comments are based on observations
that generally hold true. Poor farmers tend to be much more in
evidence in the hill areas than in the Terai. Mountain farms
generally produce less over a year's time than comparable acreage in
the Terai. And mountain farmers have few, if any, options if year-
around agriculture is impossible (and it often is).

The Terai is the agriculturally productive area in Nepal,
and farmers there seem to be more prosperous over-all than farmers
in the mountains. Since the land is flat in the Terai, a greater
percentage of the land surface can be devoted to cultivation than
in the mountain areas. The temperature is more favorable to a longer
growing season in the Terai than at higher altitudes. The extension
service and the agricultural research divisions both have very
intensive programs in the Terai, giving governmental programs a
greater potential impact.

In Kathmandu Valley poor and middle farmers whose land does
not produce enough nor is of good enough quality for year-around
cultivation, go to the urban centers in the valley and find off-
season work as construction laborers or semi-skilled craftsmen. The
poor farmer in the hills is seldom aware of this option. His land
is less productive during the dry months, and he has no service to
offer the area residents who are all living under the same constraints.
He is unwilling or unable to travel to a large village or a larger
urban center to seek work or learn a new skill.

Farm location and farmer classification are basic parameters
in understanding agriculture in Nepal and the problems of the farmers
there. Location is a significant variable for it determines climate,

water supply, availability of inputs, access to markets, and
extension services and research efforts. Farmer classification
determines his receptivity to new practices. Both these variables
have a major effect on the non-formal educational patterns of
Nepal's agriculturalists.

Agricultural Information Systems

The Farmer

A major barrier for Nepal's agricultural development is
getting information to farmers--information about when and where to
get improved seed or chemical fertilizer (if they are available),
how to use these innovations, where to get assistance with problems,
and new and expanded crop possibilities. Many farmers resist change,
for they are suspicious of outsiders, of differences, and of anything
new. And they have good reason to be cautious, for much information
given them in the past was not appropriate to their situations.
Because many of Nepal's farmers exist at the subsistence level, there
is little or no margin in their budget for innovation, experimentation,
or failure.

Certainly nearly all farmers in the developing world grew up
in a farming family and learned most of their agriculture in this
context. Yet most of the farmers interviewed in this field study
used some new agricultural practice, even though these innovations
were unknown to their fathers. How had they learned of these improved
methods? What were the sources of this information? How did they
come to adopt some of these new practices? From where did today's
farmers learn of recent improvements, first to try them and then to
adopt them? What are the points of entry external to the family (and
its internal educational process) through which new agricultural
information and skills are learned?

One phenomenon that did not serve as a non-formal education
channel was travel--farmers who traveled around the country noticed
differences in agricultural practices, but these were usually not

adopted because of different growing conditions resulting from rapid
changes in climate and water supply. Since Nepal's farmers are
suspicious of difference and reticent to adopt an unproven change,
traveling through an area does not permit long-term observation of
innovative procedures needed to convince farmers of the worth of new
practices. Considering the topographical-climatic conditions that
change so quickly within only a short distance, observed differences
not too far from home may indeed be inappropriate to consider
adopting.

Agricultural cooperatives as a channel of agricultural non-
formal education has a spotted record for the Nepalese farmer.
Cooperatives were reported to have been of limited usefulness, if
indeed they had existed at all. Stories of cooperative officials
absconding with all the money in the treasury spread far and wide,
making farmers reluctant to start or join such an organization.

Many farmers use chemical fertilizer or improved seed (IR-21)
or insecticide. The course of their first learning about these new
inputs varied: some learned about them in the bazaar, perhaps from
talking to other farmers either during a market day or at a festival
or from dealing with a merchant (who doubles as the local money-
lender); some learned from the government extension agent (many of
whom were no longer posted in the farmers' home panchayat); some
first learned at panchayat farmers' meetings where the extension
agent makes contact with area farmers; and some by observing the
practices of their neighbors who were using these innovations.

The sources of new agricultural information are primarily
neighbors and extension agents working through the panchayat (the
local government units). It would seem worth further field research
to test the hypothesis that different categories of farmers get
their information from, and respond differently to, the various
sources and channels of information. For example, the subsistence
farmers and perhaps some in the middle category may respond less
favorably to government extension agents' efforts at non-formal
education than would the rich or progressive group.

It would seem from the field exercise that the most important
source of information for the poor and the middle category of farmers
is the practice of neighboring farmers. Farmers usually note the new
techniques and resources of neighbors, wait for a year to see the
result of the new practice, then cautiously try it on a corner of
their own land. If this proves successful, the innovation is put
into full practice the next season--the whole process taking three
years. Farmers are not, however, usually aware of the information
sources of their neighbors' new practices. What is more important,
however, is that new information and new practices are diffused
throughout an area.

More than likely, innovations are introduced through pro-
gressive farmers in the area, at least much of the extension methods
of operation are based on this assumption. Government extension
agents work through progressive farmers to diffuse information. Many
farmers report there to be a progressive farmer in the area of their
home, but few claimed to have had any direct contact with him. Again,
it is not important that every farmer in the area have contact with
a progressive farmer, for it is sufficient that a few learn from him
and pass along farm improvements to others, who in turn pass the new
techniques to others. The progressive farmer can make a significant
impact without having direct contact with every farmer in the
vicinity. In this way the progressive farmer is a relatively
effective non-formal educational medium, although such a process is
time-consuming.

Again, geography has an impact on this non-formal educational
system of Nepal's agriculture, for the Terai farmer has more of a
chance to improve his level of production--the final criterion of non-
formal educational evaluation for agriculture--because of the more
intensive and extensive extension program (i.e., more extension
agents per panchayat), and because the major agricultural research is
done in the Terai (and primarily applicable to Terai conditions
only), and because of the presence of relatively greater exposure of
farmers to the flow of ideas. Although I have no hard facts to

substantiate such a claim, it might well be that there is generally more wealth in the Terai that may have an impact on the ability and willingness of farmers to adopt new practices.

When asked where farmers go for help with agricultural problems, answers such as these were iterated: "There is no help"; "In the Bazaar, but it is not effective help"; and "The extension agent, if there is one (he is usually not equipped to help)." There is a hopelessness experssed by the farmers resulting from a lack of communication between possible sources of help (H.M.G.) and those in need.

Government Non-Formal Education
Program in Agriculture

Official governmental agricultural extension is conducted by the Department of Extension of the Ministry of Food and Agriculture. Basically, the country is divided into six regions, each headed by a Regional Agricultural Development Officer (RADO); each region divided into districts, each headed by a District Agricultural Development Officer (DADO), who supervises and supports both Junior Technicians (JT) and Junior Technical Assistants (JTA), who are the front-line extension workers.

"Intensive agricultural development" programs are found in 28 of the 74 districts; these intensive efforts are mostly in the Terai, where roads, communications, and a more acute awareness and potential among farmers for agricultural improvement are found. These districts have a higher proportion of extension agents assigned per panchayat than in a district with "intermediate" programs, where there are fewer institutional facilities to support governmental agencies and a less-well-developed infra-structure. There are only two districts in the country in which there are no extension programs or personnel, for the terrain and climate are considered too hostile. (These two areas are also food deficient.)

The key link in the H.M.G. extension service is the extension agent. After a training period of varying lengths (3, 6, 9 or 12 months), the agent is assigned to a panchayat to carry out a non-formal agricultural education program. One of the methods employed is to hold farmers' meetings in the panchayat meeting hall to talk about new agricultural methods or inputs, but more importantly to identify the more receptive progressive farmers of the area so the extension agents can use them to conduct demonstration plots and help otherwise disseminate new information.

Some Nepalese officials feel that a recently-instituted program, Leader-Farmer Training, has great potential. The extension agent in the countryside (JTA) nominates 10-12 progressive farmers interested in new methods to attend a one-to-three day program held either in the panchayat or at a nearby government farm (research station). The teachers at these sessions are the DADO and/or agricultural experts, perhaps from the research station. The training-session leaders and teachers receive a short orientation on conducting such programs.

In one area, as many as three leader-farmer training sessions may be held each year, one each concentrating on rice, wheat, and corn. Farmers have indirect input into the program content--the JTA is supposed to relate farmers' problems to the DADO, who may then plan to comment on these problems during the training sessions.

One weakness of the whole effort is the lack of any evaluation-feedback procedure to determine the effectiveness of this NFE project. Since the leader-farmer training program is but 5-6 years old, perhaps this weakness can be remedied in the future as the program expands.

One advantage, among many, of this training is that leader-farmers serve to reduce apprehension among other farmers in his home panchayat, making for easier extension service-farmer communication. Less farmer suspicion of the extension agent makes for easier information flow, if the JTA takes advantage of the opportunity.

As in much of the rest of the developing world, transistor
radios are everywhere in evidence as an important source of enter-
tainment and information. Nepal has tried to capitalize on this
channel of communication to conduct a NFE presentation on agriculture
by developing short informational tapes and dramatic skits that are
played over Radio Nepal on a regular schedule. The Information
Services of the Ministry of Food and Agriculture has its own small
but adequate studio and four Nepalese trained overseas in agricultural
broadcasting.

It is very difficult, however, to attempt to measure the impact
of these radio programs. Most farmers live in an area where there is
a radio, in a local tea shop, for example. It would seem, though,
that not nearly as many farmers do listen to these programs as could
be the case, and there is some question as to whether the messages
conveyed in the programs are of any practical value. Defining what is
of use often depends on perspective: whether one is a subsistence
farmer or the director of the Information Services.

The Agricultural Information Service is also involved in
agricultural film production and pamphlet publication. Films are shown
by a mobile unit that operates mainly in the Terai. These films have
no sound tracts because of the varying languages of the potential
audiences; the film crew narrates the film in the language that the
particular audience can understand.

The impact of the pamphlet publication effort is questionable.
Agricultural pamphlets are printed annually by the tens of thousands
by H. M. G., but only four percent of the farmers outside Kathmandu
Valley are literate. Many of these pamphlets end up being used by
the village populations as wrapping for merchandise sold in the
bazaar.

Although non-formal education is not the main focus of the
research division of the Ministry of Food and Agriculture, it does
conduct minor non-formal projects for farmers. Research farms in
various locations conduct short sessions for area farmers dealing with
the crop(s) being worked on in that particular research station. Much

more could be made of this channel if there were more cooperation between the departments of research and extension.

The Agricultural Marketing Corporation (AMC), a semi-governmental institution, engages in improved seed supply--whenever available. The non-formal education the AMC conducts centers around giving information to village merchants about how to use the new inputs--new seed and fertilizer. These merchants, who become AMC dealers, serve not only as outlets for supply, but also as sources of information. (The quality and accuracy of this information is often open to question.) The impact of AMC efforts is restricted because of the inability to maintain a consistent supply and because of the varying ability of the AMC dealers in the countryside to pass along accurate information to the farmers who buy these supplies.

The various government institutions engaged in non-formal agricultural education have impacts on different segments of the agricultural community. None of these programs is developed to its fullest efficiency for maximum impact, which is usually the situation for limited-funded government functions. To improve the effectiveness of these varied programs involves the employment of better trained personnel who will conduct the non-formal education and who will improve the quality of the information to be communicated.

Barriers to More Effective Non-Formal Agricultural Education in Nepal

The NFE systems described above function, more or less, in a milieu of hindrances that prevent anything like maximum efficiency or impact. Although the various educational delivery systems are envisioned as described in official government documents, reality is quickly revealed in the field and in conversation with farmers and front-line government personnel about their problems.

The following selected comments are from conversations with and reports by people who have worked in, or who have had long intimate experience with, Nepal's agriculture, extension personnel,

farmers' perspectives and related problems. These remarks are from
not only farmers, but also from many people working in various
locations at different levels of assistance efforts.

Farmers are suspicious of extension agents because they are
outsiders, because they are government personnel, and in the past the
information they gave was not appropriate. Yet some farmers want
imp.oved agriculture, while others show little interest in improving.
Some observers feel that farmers are usually aware of the few channels
of available agricultural supplies, though these channels are seldom
available when needed. Demonstration plots are reportedly effective
mechanisms--they convince farmers--but if one agrees to be a
demonstration farmer for the extension service and the crop fails,
there is no government guarantee against crop failure in the form of
financial assistance.

Two agricultural problems facing the farmer are (1) "improved"
seed supply, which is often not delivered to the proper place in time
for planting, and that which does arrive in time usually has only a
25-40% germination rate, and (2) a problem universal among farmers--
water. If chemical fertilizer is used, improved irrigation in many
areas and an adequate water supply are necessary for an increased
yield. These are basic problems that have to be solved before real
improvement can be realized.

Extension field personnel, and especially the extension agents,
receive inadequate pre-service training and little or no in-service
training that equips them to either understand or do anything effective
about the problems of farmers. Many Nepalese officials are willing to
admit that the quality of training is insufficient to produce
knowledgeable and confident extension agents. One problem is that the
training in the past has mainly emphasized theory, with no practice.
Another is that of Nepal's diversity--to train an extension agent in
the agricultural problems of one area may prove worthless if the
trainee is sent to a different topographical-climatic region.

The training program itself is not a selection process to
identify the better trainees and separate the poorer ones. Because of
the shortage of personnel, the extension service accepts all who
apply. The extension service does need to attract people interested
in agricultural development and in farmers, which is generally not
the case at present. Many observers report low motivation among
field agents with low work productivity.

There are not nearly enough well-trained extension agents to
man every post in Nepal; consequently, many panchayats are without
extension services. Farmers often report that there had been an
extension agent in the panchayat two or five years ago, but the
agent has long since left and was not replaced. The farmers often
complained that if there were an extension agent posted in the local
panchayat, he was of little or no help and that he had seldom visited
the pattie, and then only those of the rich farmers, never of the
poor. A general complaint was that the agents were not knowledgeable
about local agriculture, thus their advice was either useless or
dangerous. It has also been known to happen that government
extension agents do not put forth the effort to leave their offices
to make contact with local farmers.

Some of the specific breakdowns of the system are that field
agents do not like being posted in small mountain villages and prefer
larger villages for their conveinences. Agents complain of little or
no administrative support from the district offices--many DADO's
seldom leave their offices, go to the villages, or supervise their
JTA's. And there seems to be a high turnover rate of DADO's and
field agents, which produces program discontinuity.

This is not to suggest that all field personnel are inadequate,
however, for there are reports of hard working and effective super-
visors and field agents, but this is more the exception than the rule.

Complaints concerning the extension agents center mainly on
two issues: low pay and being posted far from home. At first
opportunity for a better job, the JTA leaves his government post, most

likely without being replaced. The semi-government tobacco, sugar-cane, and jute corporations hire the better extension agents away from their posts by offering two to three times their government salary.

The extension program should be based on the needs of farmers and not government plans conceived by bureaucrats, and the program should focus on identified components with growth potential (such as the progressive farmers). In the case of Nepal, in fact, agricultural development resources are concentrated in the Terai because of its greater growth potential.

Regarding the act of planning, however, there seems to be some sharing of target determination between various levels and departments of government, but somehow the voice of the farmer is not heard, nor does it seem that his unspoken feelings and opinions are anticipated.

One of the major shortcomings to non-formal agricultural education systems in Nepal is the quality of the message passed along to the farmer. Research efforts are concentrated mainly on Terai agriculture and not on mountain production. The extension agent gives the mountain farmer information based on Terai research findings--the end result derived from this erroneous information may produce reduced yield or a damaged crop, and certainly a widened credibility gap.

It has been known to happen that the DADO is under pressure to show increased agricultural input statistics, so he encourages the JTA's in his area to push these supplies among farmers. The farmers, not having used these supplies before, are cautious, skeptical, and ask many questions, to which the JTA answers are all in favor of increased usage (whether he really knows the answer or not). Without the basic research dealing with new agricultural supply usage and techniques in various climatic and topographical areas, the farmers who take a chance and believe the JTA (who is himself under pressure from the DADO) and uses the new seed or fertilizer sometimes suffers from reduced yield or other undesirable results. Then when something of value to these same farmers does become available, they are unwilling

to listen to the extension agent, remembering their past mistake of believing him without the desired or promised results. Situations as described here are not uncommon, and they emphasize the need for credibility between the non-formal teacher and the recipient.

The extension service operates under the additional handicap of not having the research department of the Ministry of Food and Agriculture readily share its research findings with the extension service. If information is available within the research division, it is apparently not readily shared with or communicated to the extension division.

To conclude, whatever information and misinformation there is, is often transmitted by unqualified and poorly trained extension agents.

This brief overview of some of the barriers to a more effective non-formal agricultural education system in Nepal is not a complete description, for there are reports of some very effective personnel in some of the districts. In general, however, many would agree that there should be more positive, constructive action than there is if the Nepalese hope to improve their agricultural production.

A Success Story

The following anecdote relates what can be done to disseminate effectively a desire for improved corn seed. Along a road about a mile outside a Terai town there is a government field for which farmers, who lived farther down the road away from the town, were hired to plant improved corn seed which was given to them by government personnel. They were instructed to plant it in their traditional method and when finished they were paid for their labor. As these farmers daily walked the road to town past the field they had planted, they noticed a better corn crop developing than their own crop in their home fields. Soon, upon the farmers' requests, arrangements were made for them to exchange, at no expense to them, some of their corn for the improved corn they were hired to plant.

The poorer corn was used as feed in a government fisheries project. The farmers living down the road are all now using the better corn seed and doing so with the conviction of the new seeds' worth.

Suggestions for Improving Non-Formal Agricultural Education in Nepal

The following section focuses on a host of suggestions from personal observations, from extension service personnel commentary, and from impressions of non-Nepalese working in agriculture that might be considered in developing a non-formal educational program. Although these suggestions are divided into four groups--organizational, personnel, program, and field techniques--they should be considered in the light of the argument that this author sees an improved non-formal education system coming about, not by building new institutions, but rather by advocating the improvement of the existing institutions and programs in Nepal.

Organization

- There is a demonstrable need for coordination within and between the research, extension, and teaching agencies of agriculture.

- A workable rural credit system is needed that will encourage more farmers to use the new agricultural inputs, which all cost money.

- Identify other possible supporting agencies and coordinate multiple efforts, for cooperation produces g... er results than does competition.

- Develop an inter-ministry communication network; institutional linkages are especially critical to the success of non-formal educational progject.

- And there is a need for a delivery system both of agricultural inputs, such as new seed, chemical fertilizer, and insecticides, and of information inputs, such as how to employ these supplies to the best possible advantage.

Personnel

- Recruit program administrators who are able to focus on what needs to be done and not on why a proposed solution cannot be carried out because of the bureaucracy.

- Recruit extension personnel, viz., front-line agents, who are dedicated to and interested in agriculture and in the farmers.

- Extension agents must receive a practical pre-service training and regular in-service refresher courses (workshops or seminars) based on farmers' problems encountered in the field.

- The reward structure must be changed to attract and retain the better extension people. Field performance should be the major criterion for rewards.

- The extension service should establish a post of subject-matter specialists on the district level to serve as a technical backstop to the field agents.

Program

- The major challenge to NFE programs is to prevent them from becoming formal structures interested only in their self-preservation.

- Pilot programs that prove to be successful should be expanded only gradually. Good programs have been killed because of having been expanded too fast.

- Program planning should include some grass-roots research-- get out into the patties and talk with farmers--to develop different messages designed for different categories of farmers, to be delivered through different channels.

- Every program needs a built-in research and evaluation section to determine causes of success and failure.

- Viable NFE programs can only be based on the surveyed needs, potentials, resources, and limitations of the local people within the different areas of the country.

- The non-formal agricultural education program could be further developed if the potential linkage between the extension service and the formal school system were exploited. Extension agents or the DADO might be used as a periodic guest teacher in the local schools, for example.

- The impact of Radio Nepal could be further developed if many cheap radio receivers were distributed to various farmer meeting places in the countryside and if the program messages were evaluated for their appropriateness.

- More farmers must be made aware of available sources of credible information, supply, help, and credit.

- More emphasis should be placed on agricultural cooperatives as a NFE channel for self-help, with financial safeguards to protect farmers' investments in the institution.

- H.M.G. should help bear some of the expenses for farmers who help the extension service in disseminating agricultural information.

- New material inputs used in a non-formal educational program in agriculture must be locally available to the participants both during the course of the program and after the organized efforts end.

- Planning must consider the relevance of what is introduced, through whom, and how. Timing is very important; the NFE program has a better chance to succeed if it is accommodated to the leisure or less busy portions of the recipients daily-weekly-monthly-annual work schedule.

- The extension service should develop practical plans for off-season farm projects, e.g., grain storage facilities or kitchen gardens, or the extension service might even consider developing programs that focus on rural, non-farm skills.

- If the short-course method is a possible approach, some of the tasks involved are:

    - to develop teaching aids and materials
    - to write a curriculum and course content (but keep it flexible for participant problem input)
    - to develop teaching techniques
    - to conduct short teacher training courses in how to organize and teach in a non-formal context
    - outside training for key personnel
    - to plan local field trips
    - to supervise the teaching and the whole program administration
    - to supply adequate materials
    - to provide a clear definition of responsibility and yet a degree of autonomy that will allow for adaptability.

- Non-formal education programs must be voluntary. If it is successful, interest will grow naturally among potential students.

- And finally, many felt that NFE programs are not so much to
produce people with marketable skills as they are to
improve the skills of those already employed. If the
former option is the focus of the non-formal program, the
skills learned must be marketable and related to present
and future needs.

Field Techinques

- It would be helpful to recruit those who will actually
impart knowledge to others of approximately the same social
standing, i.e., of the same category of farmer, if possible,
as the recipient and/or to have as much experience in the
skill or technique being taught. This does not mean that
the extension agents have to themselves be literate or hold
a minimum academic degree. Such an approach, however, may
require a revised reward structure within at least part of
the national bureaucracy.

- Those who carry out the program on the local level should
know as much as possible, not only about the subject area,
but also about the participants and the community.

- If feasible, develop special regional workshops outside the
capital city of the LDC, making the experience accessible
to a greater geographical spread of participants.

- The extension agent must make himself known to the area
farmers as a resource person. He should be made aware of
sources of information and of channels of resources, and
this knowledge should be passed along to the farmers.

- Field agents should build credibility among farmers by
starting with a sure thing, by concentrating on one
improvement at a time, by capitalizing on farmers
interested in new techniques, and by using farmers to
help convince other farmers.

- Do not so structure a non-formal program that possible
failure will be disadvantageous to the participant. By
helping with the expenses, credibility is established.

- If the front-line instructor does not know the answer to
a question, he should be instructed to say so. At the
same time there should be more professional back-up
immediately available to provide the answer.

- Base the NFE program on more practice than theory, and on
more doing than watching. On-the-job experience is more
beneficial than the academic approach.

- To introduce a program to a village community, attempt to gain the support of the local leadership--small farmer leaders, employers, merchants, credit managers, local-regional government leaders, et al. In short, work closely with the community and its power structure.

- Replicate real-life situations as much as possible.

- Demonstrate the direct advantage of participating in a non-formal program.

- Make use of local talent, it helps build credibility.

- Go slowly, especially at the beginning, to make sure all understand.

- Start small with an attainable objective.

- Base field methodology more on action and visual, personal gain than on talk.

- Become known among potential recipients. Talk with many people about the program.

- Know exactly what you want to say when initially contacting potential respondents. Keep the language simple and non-technical.

- Limit first contacts with non-formal learners to basics.

- In the Nepalese contex , mixing business with social events is acceptable and productive.

- Attract the attention and interest of potential program participants, but do not press for a commitment.

- Leave something with the potential recipient at the first contact to remind him of you and the program.

- Make follow-up visits to demonstrate your interest in his participation and welfare.

- Keep records of visits as a reminder of the frequency and the nature of the contacts.

- Make use of existing meetings and meeting places rather than attempting to call special meetings, especially in the initial stages.

- Investigate the possibility of using unused school facilities, if a meeting place is needed.

- Avoid speeches.

- Do not interrupt when other farmers are talking about the program. As an outsider, stay in the background as much as possible.

- Capitalize on interests among local participants and use
  them to help spread the message about the NFE program
  among their farmers and friends and neighbors. This adds
  credibility to the program.

- In summary, the non-formal teacher at the local level
  might keep in mind this guide to an extension program:

   1. Awareness: The farmer must first know that the
      program exists.
   2. Interest: The farmer must become interested in
      the program.
   3. Evaluation: The farmer decides whether the program
      is good for him or not.
   4. Trial: The farmer tries the program for himself on
      a small scale.
   5. Adaptation: The farmer learns from the program,
      feels the results are worth while, and changes
      to the new practices.

Summary Commentary

It must not be forgotten that time is required for a
national economic and human infrastructure to develop such that
various sectors of the economy will begin to "modernize." National
development, and especially agricultural development in a less
developed country--like Nepal, which is predominantly agricultural--
presupposes a host of conditions necessary to achieve that objective.

Yet these are the very conditions lacking, and because of
their absence progress is slow. Agricultural improvement in Nepal
is hindered because of the lack of a well-developed infrastructure,
e.g., research facilities, communication and transportation networks,
supply sources, easily available credit, and irrigation systems.
There is also the human element to this infrastructure--attitudes,
support, coordination, technical expertise, and leadership--without
which the physical inputs mean little.

The situation is as Gunnar Myrdal reports in the Asian Drama
(Vol. III), ". . . development is characterized by the tendency to
think of the cause of economic growth as the capacity to create
wealth rather than the creation of wealth itself." This is basically

the official direction of non-formal agricultural extension education
in Nepal, but much additional effort is needed to make this program
more effective.

The potential of the non-formal approach is limitless if such
program meet certain criteria. Organized efforts must be based on
the responsiveness to needs of the potential client system(s), which
includes the exploration of indigenous key variables that may
determine success or failure--discover how ideas flow in a culture
by looking at the people and their institutions (formal and informal)
and how information moves through which channels to different
recipients. The program should be so designed as to capitalize on
the aspirations and dynamics of change; even though only a small
portion of the potential clientele may be initially enthusiastic
about trying a new NFE program, start with them to build credibility.
Construct non-formal programs to work through existing institutions
and their relationships with client systems and, if at all possible,
avoid developing new institutions to fulfill needs. Avoid adding
to the governmental bureaucracy and concentrate instead on making
existing institutions, e.g., the agricultural extension service,
function more effectively. A modification of existing institutions
should be seriously considered, viz., an effective feedback mechanism
that can be used to modify the controllable program inputs in order
to improve the cost-effectiveness of the functioning of the parent
institution or government department.

What are the implications of the descriptions and commentary
in this paper to the role of the outside assistance agencies
interested in non-formal educational programs as a means of promoting
national development? Attention should be directed to primarily two
areas: modify, to whatever extent possible, the organizational
structure of host government bureaucracies such that the second
factor will have a greater and more direct impact. This second
factor involves the changes in the quality of the technical
expertise and the nature of attitudes of the people involved in
the developmental efforts of the host country. Without a

facilitating bureaucracy, experts in the field will accomplish very little; without experts, a well-functioning bureaucracy will accomplish nothing. Both are essential ingredients.

The NFE program is not a thing apart from development, for development is an educational process. Outside forces might consider a non-formal educational approach in attempting to modify host bureaucracies in order to facilitate better human resource use.

APPENDIX C

JOB INSTRUCTOR TRAINING

By

John Mietus

Introduction and Rationale

This paper traces the historical development of Job Instructor Training, a training within industry typology of manpower development, from its original conception in Germany, to its diffusion and adoption in Europe, to its employment in the U.S. during and after the war, and finally to its use in other regions of the world.

A key factor in the operation of industrial production plants is the amount of technical knowledge of the plant foremen and supervisors and their ability to deal with problems involving men within the work setting. The Job Instructor Training scheme has been tested with much success and has been widely used in training to enhance the effectiveness of supervisory personnel in industrial settings.

One concern in the study of non-formal education is the analysis of teaching and learning processes in a variety of settings. It is assumed that the educational process shapes one's behavior within any given setting. It is assumed further that systematic and deliberate intervention in that process will create change resulting in the greater well-being of the people subjected to the process as well as to the organization for which they work.

Operationally this study provides information on the technique used for facilitating learning--the creation of learning situations, and the organization of an educational program within a work setting, on the job, and involving a large number of people.

The methods and techniques popularized in the Training-within-Industry programs of the U.S. War Manpower Commission of World War II have strongly influenced the training of supervisors and workers throughout the world. They have been modified to meet local conditions, translated into many languages, and adopted by diverse governments and enterprises.

Training-within-Industry (T.W.I.) was designed to provide a realistic adaptation of known training methods to meet the massive and urgent manpower requirements of the mushrooming United States

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war industry in the early 1940's. It provided a system of intensive coaching to develop men and women of sundry educational and occupational backgrounds into effective supervisors in a very short period of time. The fundamental "J" programs taught were: Job Instructor Training (J.I.T.) whose purpose was to enable supervisors to efficiently teach their workers how to do the job; Job Relations Training (J.R.T.), which sought to develop skills in human relations and leadership; and Job Methods Training (J.M.T.) to teach the supervisors to plan and schedule work efficiently.

The purpose of this paper will be to describe the development and diffusion of Job Instructor Training and to postulate some reasons for its success.

Job Instructor Training (J.I.T.) was the initial and principle program of T.W.I. Its origins can be traced back to the early 1800's in Germany. Johann F. Herbart, a philosopher, psychologist, and founder of modern scientific pedagogy, postulated the concept of the "apperceptive mass," a background of experience making possible the assimilation of new ideas. However, each new bit of information or skill must be presented only when the learner is ready to accept the new, i.e., when his background of experience is appropriate. This simple idea has had tremendous influence in Western throught and has led to the concept of an educational curriculum so devised that a learner passes from the familiar to the unfamiliar. It also began the systematization of the trainer's thinking as to what is the learner's mental state, i.e., his apperceptive mass.

In the early 1900's, Charles R. Allen, a vocational education instructor in Massachusetts, adopted the results of a hundred years of influence on Herbart's theory. He attempted to persuade vocational instructors to systematize their instruction into four basic steps: (1) preparation, (2) presentation, (3) application, and (4) testing (or inspection).

In 1917 the Emergency Fleet Corporation of the U.S. Shipping Board set up an Educational and Training Section with Charles Allen as director. Its task was to quickly train large numbers of inexperienced

men to work in shipyards straining under the war effort. The above four principles of instruction became the basis of this training. In addition, all training was to be done by instructors with previous supervisory experience, who themselves were to be trained by the Emergency Fleet Corporation, and that all training of workers was to be done on actual jobs. Training on special school ships, on practice material, or under other than actual working conditions would not be tolerated.

These principles attracted wide attention. Allen's 1919 book, The Instructor, the Man, and the Job, which summarized the experience of the Emergency Fleet Corporation and his earlier thoughts, influenced the thought, but not the practice, of industrial education between the wars. The now familiar four step card for job instruction (Show, Tell, Do, Check) was first printed at the Dunwoody Institute in the 1920's. Numerous books and articles proposed the Allen steps, but, except for some vocational educational systems, the steps were not put into practice.

With the fall of France in June, 1940, the United States began to set up emergency war production agencies. Training-within-Industry of the U.S. War Manpower Commission was among the first to be instituted. The job of mobilizing for war production was tremendous. There were still eight million unemployed persons in the states; many soon-to-be workers had never been employed in any productive enterprise.

The concept of T.W.I. was simple. A volunteer staff of industrial men on loan from their industries and a small full-time paid staff would provide consulting, advisory, clearing-house, and specific supervisory skill building programs to industry. The underlying purpose was to meet manpower needs of the defense effort by training each worker within industry to make the fullest use of his skills and energy. There was no authority for T.W.I. men to enter plants without the cooperation of management, and eventually T.W.I. learned to work only with plants whose managements were actively, personally involved in the training effort. There was to be

little emphasis on classes and lessons, rather it was with individual and group work on production problems that learning would take place.

The multiplier principle was to be all-important: develop a standard method, train the people who will train other people, who will train repeated groups of people to use the method.

The men who were to direct this vast undertaking were Mr. C. Dooley of Standard Oil of New Jersey, Mr. W. Dietz of Western Electric, Mr. M. Kane of A.T.&T., Mr. G. Gardiner of Forstmann Wollen Mills, and Mr. B. Conover of U.S. Steel. Each had extensive training experience and had either worked with Mr. Allen in W. W. I. or had worked successfully with his principles.

The organization which eventually evolved was decentralized and divided the United States into twenty industrial districts. Each district had: a district director, whose part-time service was without compensation and who was an operational leader of a prominent firm; program heads and assistants for each of the "J" programs; a management contacts head, who was the sales manager; an office supervisor who had stenographic help as needed; and resident representatives for important industrial areas outside the district office city. The national headquarters was kept small and utilized prominent industrialists and technical consultants for policy formulation. The organization was, as much as possible, advised, funded, and staffed by industry not the Federal government.

T.W.I. promotional activities included many methods--luncheons with business groups, literature, radio messages, personal contact, word-of-mouth. Until 1943, T.W.I. stressed the techniques of their "J" programs, and management responded because the programs sounded as though they should work. After 1943, the results of the programs were emphasized, and T.W.I. felt that this was one of the most important promotional steps it took. T.W.I. worked to meet a specific plant's needs rather than to get the plant to adopt a program because the program was good. In any event, the T.W.I. programs were well received. For example, by 1945, 1,005,170 persons from 16,500 plants had completed the J.I.T. program.

Each T.W.I. program was stereotyped in pattern and method of administration. No deviations were permitted. This was done to ensure uniformity of quality of instruction because often the program instructors were not much advanced over the supervisors being trained. The size of the training groups was restricted to not more than twelve; visitors were not allowed. Sessions were held according to a close, rigid schedule regardless of production demands.

Job Instructor Training was an intensive ten hour course treating the method of properly instructing the worker in new tasks. It was developed in 1941 from training materials and books based on Allen's four step method. Some of these were Western Electric's 1940 pamphlet "Job Instruction," Mr. Gardiner's How to Instruct, American Telephone and Telegraph's 1930 "Plant Training Practices," and the Handbook of Business Administration. The famous fire under-writer's knot example was chosen after consideration of many demonstrational jobs. In its final form the program consisted of five two-hour conference-type sessions. The first session, and part of the second, explained the principles of job instruction. These sessions were designed to make the supervisor see the need for proper instruction. This was done by means of faulty and correct demonstrations of instructing. The remainder of the ten hours was spent practicing making job breakdowns and instructing one another in tasks. The essence of the principles of instruction were printed on small cards distributed to each trainee. Emphasis was also placed on a time table or progress chart showing the foreman how much skill each of his workers should have by a specified date. More detailed understanding of the program may be obtained by study of Appendices A through D.

After two years of operation, the J.I.T. course was supplemented by a follow-through plan for coaching supervisors who had been trained in J.I.T. earlier but who had not used this training to any extent. This refresher course was six hours in length, and provided reviews of the techniques and individual coaching.

What were the results obtained with J.I.T.? Testimonials
and incidents were used to illustrate the program's effectiveness.
Here are two:

> Electric manufacturing company--"One month after the J.I.T.
> program was started reject tickets were reduced about 50%
> in two departments with 2,500 workers."

> Shipyard--"A crew, originally of 85 men, now of 70 (49 of
> tnem women), is turning out 10% more work than the
> original and larger crew did."

In May 1943, T.W.I. compiled summary figures on results to
date on all its programs. As Job Methods Training was not available
until summer 1942 and Job Relations Training was not until spring 1943,
these figures can be construed to apply chiefly to Job Instruction
Training.

Kind of Result	% of Plants Reporting Results of			
	Under 25%	25%-49%	50%-74%	75% and over
Production Increase	63%	16%	1%	20%
Training Time Reduction	52%	25%	7%	16%
Manpower Saving	89%	9%	1%	1%
Scrap Loss Reduction	89%	5%	5%	1%

Based on voluntary data from 600 plants (T.W.I. Report, p. 91).

The Metropolitan Life Insurance Company surveyed the
advantages reported by firms utilizing J.I.T. (1943, pp. 2-4). The
following list was compiled:

> Training time was reduced 20-90%.

> Production was increased.

> Bottlenecks were broken.

> Manufacturing costs were reduced.

> New workers were used on precision machinery.

Expansion was facilitated.

Foremen were made more aware of their responsibilities.

Turnover was reduced.

Spoilage was reduced.

Accidents were reduced.

Manhours were reduced.

Better worker-management understanding was accomplished.

Leadmen had more available time.

Persons were better prepared for promotion.

The program was well accepted by both foremen and workers.

To place advantages as listed above in another perspective, perhaps a listing of the disadvantages of having untrained job instructors is in c der.

The untrained instructor may:

1. Teach the job as he prefers.

2. Teach the job in bigger units than the trainees can readily grasp.

3. Not teach the whole job, as some parts of the task become automatic to an experienced man.

4. Teach things important to an experienced worker, but unimportant to a new worker.

5. Forget why a task is done in a certain manner.

6. Become impatient with a slow learner, as he is accustomed to doing, not teaching.

7. Be unable to use appropriate words in teaching.

8. Not properly prepare himself before teaching.

9. Antagonize the learner through lack of skill in obtaining good will and cooperation of men. (Paper Industry and Paper World, Vol. 25, p. 273.)

T.W.I. was particularly proud of the number of persons directly affected by Job Instructor Training. It indicates that ten million war production workers were directed and trained by one million supervisors. These supervisors were trained by twelve thousand trainers who in turn were trained by two hundred institute instructors. These institute instructors were trained by ten field representatives

who were trained by four national directors. Sixteen thousand five
hundred plants and unions, from every type of industry, were
involved (T.W.I. report, frontispiece and p. 128). These figures
apply only to the industrial sector. Outside industry, by 1945,
150,000 Armed Forces, 67,000 Civil Service, 11,000 Department of
Agriculture, and 1,800 Social Security personnel had been trained in
J.I.T. techniques (T.W.I. Report, p. 151).

T.W.I. saw its jo as completed when the war ended, and
accordingly, by September 30, 1954, all activities were stopped.
With the loss of the T.W.I. organization, the use of formal "J"
programs faded precipitously in American industry. An April, 1951
Fortune magazine article cites the reasons for this decline in
training: (1) the reappearance of skilled workers, (2) industry's
realization as to how expensive training really is, (3) the dislike
of the T.W.I. programs by many companies. Reasons for this dislike
were listed as (1) overtraining of personnel, (2) programs involved
not enough practice, (3) T.W.I.'s failure to use production men as
trainers, (4) T.W.I.'s misuse of testing techniques, (5) lack of
custom designed training, (6) use of poorly trained instructors, and
(7) T.W.I.'s failure to use refresher courses.

Three of T.W.I.'s leaders, Mssrs. Dooley, Dietz, and Kane,
founded the T.W.I. Foundation of Summitt, New Jersey to carry on the
T.W.I. programs. As of 1951 it was supported by sixteen member
companies and four hundred fifty user firms (Fortune, April, 1951).

From the period of initial decline, J.I.T. has risen in
popularity in the United States and during the mid-1950's and 1960's
has become the core program in much industrial training.

Job Instructor Training in Foreign Lands

During the early part of the war not much use was made of the
J.I.T. program abroad. Material was made available to representatives
of the International Labour Organization, Australia, New Zealand,
Holland, Poland, Norway, Sweden, Venezuela, the Union of South Africa,
Great Britain, and Canada. Brazil, Cuba, India, Russia, Mexico,

Puerto Rico, and China were given training bulletins but not course outlines. Canada, into which J.I.T. was introduced in May, 1942, made substantial use of the program, training 55,000 supervisory personnel between 1942 and 1945. The program was translated for use with French speaking Canadians. American industry used J.I.T. in Saudi Arabia with the Arabian-American Oil Company, in Mexico with the Cananea Copper Company,and in Latin America with Pan American Airways supervisors (T.W.I. Report, pp. 151-159).

In 1944, Mr. F. Perkins, Ministry of Labour and National Service, Great Britain, studied the T.W.I. organization in the United States. Upon his return to Britain he introduced the "J" programs. By war's end 15,600 persons were trained (T.W.I. Report, p. 151). The Training with Industry Job Instruction Programme, as it was called, grew in popularity in the British Empire. From 1945 to 1966, the Ministry of Labour trained 364,679 persons in J.I.T., including visitors from 63 countries (Tickner, p. 113). When the Industrial Training Act of 1964 was put into operation, Mr. Perkins was appointed Chief Advisor on Industrial Training, Department of Labour.

The reconstruction efforts after the war gave considerable impetus to the diffusion of J.I.T. and the other programs of T.W.I. The Marshall Plan productivity programs and the International Labour Organization technical assistance efforts spread J.I.T. throughout Europe and many less developed areas of the world. Belgium, Holland, Denmark, Norway, France, Austria, Germany, and Italy all became involved in J.I.T. programs (Price, 1955). In 1952, the Institute per l'Addestramento nell'Industria (I.A.I.) was formed by a group of Italian firms and charged with the application of T.W.I. methods for training managerial personnel at all levels (ASTD Journal, July, 1959). In April, 1946, the Conference of American States Members of the International Labour Organization resolved to promote T.W.I. programs throughout the Americas (International Labour Review, No. 54, p. 160).

At the end of 1948, the General Headquarters of the Supreme Command of Allied Powers made T.W.I. materials available to the Japanese Ministry of Labor. Technical assistance and control of the program was written into the 1949 Employment Security Law. Translation and experimentation followed; soon there were three trainers in the Ministry of Labor and forty-eight in the Prefectures (states). In 1951, four American trainers were sent to Japan to further stimulate its growth. The Japanese Industrial and Vocational Training Association propagated the method, and by June, 1956, there were 400,000 supervisors trained in at least part of the whole T.W.I. program, primarily J.I.T., and at least 60% of Japanese firms with five hundred or more workers had accepted the T.W.I. principles (Holmes, p. 196; Hubbell, pp. 24-26).

During the 1950's and early 1960's, numerous references in the international training literature were made to the T.W.I. programs, although there is quite often no differentiation made between the "J" programs; when such breakdowns are available J.I.T. is seen as the core program. The 1959 American Society for Training Director's Conference hailed J.I.T. as the heart of the training function (ASTD Journal, July, 1959). In a survey of seven European countries, the National Institute of Industrial Psychology (Great Britain) found that Holland and Great Britain outranked the other countries in their use of J.I.T. Thirty percent of the instructors surveyed were trained through J.I.T., while 33% had no training, and the remaining 37% had other assorted training experiences (N.I.I.P., 1957, p. 44).

Aside from those already noted, some other governments that had stablished T.W.I. patterned organizations were India (Harbison, 1964, p. 121), Jamaica, Tanzania, and Puerto Rico. Ranzania's Ministry of Labour trained 189 persons through its program during 1964 (King, p. 32). Australia's T.W.I. program from 1948 until 1968 had been primarily for State and Commonwealth departments with some nominees from private organizations being trained since 1954; in 1968 the Australian Institute of Management was allowed to provide T.W.I. services to private firms (Personnel Practice Bulletin, September, 1968, p. 167). Alcan Jamaica Ltd., a subsidiary of Alcan Aluminium of Canada,

introduced its management to T.W.I. programs in 1958. It was initially provided by a consultant, later by in-company trainers; in 1960 the Jamaica Development Corporation started to provide trainers (World Yearbook of Education, 1968, p. 347). Fomento, the industrial development agency of Puerto Rico, has since 1955 provided T.W.I. programs to industry. Its experience has been that continental United States firms utilized the programs to a greater extent than the indigenous Puerto Rican firms. Demand for the programs was rapidly increasing in the early 1960's (Harbison, 1964, p. 130). While go.ernment agencies have institutionalized T.W.I. programs in numerous countries, the private industrial sector's own in-company training programs have had a massive effect in spreading the "J" programs pervasively throughout the world. In-company trainers have adopted and modified J.I.T., and to a lesser extent the other programs, to fit their company needs. Sometimes the J.I.T. program is put on in much the same was as it was in World War II; often the demonstration example is changed to suit the particular industry. Where J.I.T. is not used as a single, intact program, it can be found imbedded in a longer training program for foremen or trainers. United States industry (and the federal government) has for so long used J.I.T. as a basic, core program that it seldom makes special reference to it. Industries in other countries also offer their own programs. The Yawata Iron and Steel Company of Japan in the late 1960's gave ten hours of T.W.I. instruction to all new foremen as did Unilever's Plantations Lever au Congo (Holmes, 1968, pp. 295-335). The Indian Aluminium Company Ltd. was using T.W.I. techniques in 1961 (National Planning Association, 1961). The Taiwan Sugar Industry in 1960 called T.W.I. training for its foremen the most scientific and advanced training available (KWong-Hua Liu, p. 42). General Electric's Brazil operations, as of 1961, used all three "J" programs for its managerial staff (National Planning Association, G.E. Case Study, p. 62).

During 1968, the Department of Labour and National Service, Australia, surveyed and analyzed 105 firms for which the department had trained T.W.I. trainers. The firms represented a wide range of industries (Newton, 1969). Among the main findings were:

- One third of the 331 T.W.I. trainers trained between 1954 and 1968 were still actively conducting programs.

- Each company had conducted an average of 47 programs over the 14 year period.

- About 38% of trainees attended the J.I.T. course, 29% attended Job Relations, 13% Job Methods, and 30% had attended a Job Safety course.

- Almost half the companies had modified the courses in some way.

- Most managers saw the programs as first steps to further training, although some felt them to be too superficial for better educated managers.

- In addition to foremen, J.I.T. was given to executives, operators, clerical staff, technicians and tradesmen.

- Reasons for using J.I.T. were grouped into the following:
  1. To increase knowledge and skill of operators;
  2. To make more effective use of operators;
  3. To improve supervisor's standards of instruction; and
  4. To improve communications.

In Twenty-four companies management viewed the T.W.I. training as essential for all supervisors. Six companies thought T.W.I. as too basic for any but the less sophisticated first-line supervisors.

J.I.T.: Pro and Con

The T.W.I. Plan for training large numbers of individuals and J.I.T. as the primary vehicle in this plan have initiated both positive and negative comment, all the while enjoying tremendous popularity. Here are some of the principles used, their strengths and their weaknesses.

The WW II Training-within-Industry organization and its latter day copies in various government bureaus follow certain principles. A highly standardized course outline is used which must be followed to the letter in all cases; this ensures the attainment of a certain

minimum quality level regardless of the instructor. It also allows an instructor to work with various types of plants and trainees without adapting the general training program. While this increases the instructor's productivity in relation to numbers of trainees taught, it also encourages criticism for lack of flexibility. In situations where the instructor is himself not very well versed in training techniques it allows him to function effectively.

Decentralization, making maximum use of industrial men for guidance, planning, propagandizing, and training keeps the cost of the program at a minimum for the government and helps make the user firms feel the programs are their own. This psychological ownership is an important factor in utilizing the programs and their techniques. T.W.I., during the latter part of the war, found a significant positive relationship between program effectiveness and plant upper and middle management's active participation in the program. Hence, the principle--work only with those situations where upper management is actively involved in training--was emphasized.

The program is best sold by emphasizing the results achieved, not the techniques used.

The multiplier principle is all important in maximizing the number of persons affected. This principle is to develop a standard model, train persons in it, who will train others, who will train still others.

The broad application of the training resulted in many ineffective situations. T.W.I. found this to be most prevalent when no in-house person was assigned to coordinate and follow up after the supervisors of a plant were trained. In-house coordinators, refresher courses, reminder cards are all needed to maintain the training effects.

Considering the J.I.T. course in itself, one should evaluate it in terms of its goal attainment. Its stated goal is to inculcate in the supervisor a simple methodological approach to the explana-tion of a task. It attempts to detach the supervisor from his craft

for a moment. Kept in this light, the use of the demonstration underwriter's knot with many different types of trainees becomes a help, not the oft stated hindrance. The supervisor is kept totally detached from his craft and can concentrate on the teaching principles put forth. Later, when he has these well in hand, he practices on his own examples.

Some other major strengths of the course are that it is believable, it is put forward in shop terms, it is atheoretical. It uses production problems as examples and involves the participants in extensive active skill practice. It uses a minimum number of gadgets, requires no teaching aids other than the blackboard and the reminder cards. Finally, it requires no writing skills of the participants, thus allowing for a wide range of abilities in the trainees. The J.I.T. card provides reinforcement for the participant long after the course is completed.

In analyzing the method the job instruction trained supervisor uses to teach new workers, the application of many learning principles may be seen.

The stimulus situation is meaningfully arranged, with the instructor eludicating the key points of the task. As the production tasks, practice tasks, work place, and social environment are the same, there is no transference problem. The learner is actively engaged in making responses through extensive repetitive practice. The instructor, before teaching the task, does a simple task analysis (Appendix C). He also sets up a timetable for the learning of all relevant job skills by the worker (Appendix D). This allows him to set a level of expectation which is, at the least, thought out. Furthermore, before teaching the task he sets up the workplace in the way he wishes the worker to maintain it, thus the principle of modeling desired behavior is used. Finally he attempts to analyze the learner's state of knowledge and readiness to learn.

However, the learning environment is also the production environment, and this may cause a higher than optimal level of anxiety in the learner, thereby retarding his progress. The

reinforcements for task completion are the same in the learning situation as in the production situation; this provides excellent positive transfer, but it may also leave the trainee unclear on the correct and incorrect aspects of his performance.

The personality characteristics and task demands of the instructor may inhibit the learning process of the trainee. It is known that a democratic instructor will produce different training outcomes than will an authoritarian trainer; in an on-the-job training situation this variable is essentially uncontrolled.

The cost of on-the-job training may be less than that of off-the-job or vestibule methods. The trainee is producing while learning, and machinery which might be used for production is not limited to training use only. However, on a tightly controlled, high capital investment assembly line the opposite may be true.

The quality of the finished product is dependent upon the trainee's ability to produce quickly with no errors.

Summary

Job Instructor Training has enjoyed unparalleled popularity throughout the greater part of the world. After its initial development in the United States during the two World Wars, it spread, through international assistance programs, to Europe and many less developed nations.

The procedure used in Job Instructor training involves showing a group of about ten supervisors how to analyze a task, how to demonstrate it to a worker, how to determine a worker's state of task knowledge, and how to verify that the worker has properly learned the task. Each supervisor-trainee in turn must act the part of trainer and trainee. The entire technique uses many learning principles and is primarily designed for the rapid, economical motor skill training of large numbers of persons.

APPENDIX D

AN ANALYSIS OF THE ROLE OF THE
INDIGENOUS MILITARY IN COLOMBIA

By

Thomas G. Nicholson

Thus far this study has dealt with the peaceful uses of military forces in a rather general fashion. In this section the study will be focused upon a specific Latin American country, Colombia, and the role of that nation's armed forces in national development will be analyzed.

This analysis should provide a better understanding of how military civic action is influenced by historical events, as well as present political, sociological, economic, and geographical conditions within a specific nation-state.

The Colombian analysis should also demonstrate how civic action activities interface with other agencies and institutions which are included in the overall plan for national development.

Geography

Colombia, the fourth largest state in South America, is located in the northwestern portion of Latin America, adjoining the isthmus of Central America, and has coasts on both the Pacific Ocean and the Caribbean Sea. It has an area of 439,405 square miles and a population If 19.8 million (projected). The country is divided into four rather distinct ranges by the Andes mountains which occupy about two-fifths of the land. The lowlands are generally hot and experience heavy rainfall. An exception is the Juajira Peninsula which is both hot and arid. The highland's climate varies with elevation and is pleasant and temperate in the higher elevations. Colombia's population is concentrated in the valleys and basins between the Andes ranges, and eleven of the fourteen urban centers are located in these mountain valleys. The other urban centers are found in the Caribbean coast. Vast planes extend from the eastern range of the Andes into the Amazon River basin where jungle-filled areas are almost unpopulated. Mountain valleys along the northern ends of the Andes ranges also are almost uninhabited. The principal

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means of transportation for much of Colombia is by water. The
natural resources, though not completely exploited, are adequate to
support her growing population.[1]

Socio-economic Situation

The population is composed of four principal ethnic groups:
European 20%, mestizo (mixed European and Indian) 68%, Indian 7%,
and Negro 5%. The Colombian people are Christian and Roman Catholic,
but there is no real unity, primarily because of the different
origins of the original settlers and the geographic diversity of the
country. Thus, groups of people have developed who are culturally and
socially distinct and loosely associated politically. While the
people are proud of their cultural achievements, these cultural
endeavors reflect definite regionalism. The people obviously take
treat pride in this regional isolation, and it is a major factor in
all activities. In the past twenty years, there has been considerable
migration from the rural areas to the urban centers, and problems
have been encountered in providing services and employment for these
newcomers. Like the social situation, the economy is also fraught
with problems. The economy is basically agricultural; production is
adversely affected by inefficient techniques and misues of resources.
Yet, agriculture is the main source of foreign exchange and is the
source of livelihood for most of the population. For example, coffee,
bananas, sugar, and tobacco are cited as principal commercial
products along with petroleum and platinum. With respect to industry,
this sector is developing slowly. It is plagued by problems of
capital distribution and shortages of skilled manpower. This latter
factor is traceable to rather high levels of illiteracy and other
social problems. In short, significant economic progress is con-
tingent upon resolution of many social and political problems.[2]

Political-Governmental Situation

Colombia is a former Spanish Crown Colony; it achieved its
independence on December 17, 1819, and the Republic of Gran Colombia
was established incorporating the territories of Venezuela, Colombia,
and Ecuador. Venezuela and Ecuador separated from this union in
1829 and 1830, respectively. During this early period, two political
parties developed. The Conservatives favored a central government
and close relations with the Catholic Church. The liberals wanted
a federation of states and separation of church and state. There
continued a great deal of political rivalry and strife, and civil
war actually occurred from 1839 to 1842. These two parties alternated
in power from 1840 to 1880 and some progress was made. In 1880, the
Liberals came to power and there followed a period of repression
until 1889 when once again civil war erupted. A conservative was
elected in 1904, and progress was again noted even though it was a
dictatorial period until 1909. There followed an era (1909-1930) in
which five Conservative presidents held power. This period brought
economic improvements, advances in political cooperation, and
reductions in press censorship. Unfortunately, this new affluence
led to corruption, inflation, and overexpansion. With the financial
disaster of 1929 came a change in government again from Conservatives
to Liberals. From 1930 to 1943, a series of Liberal administrations
followed a policy of moderation which held the government intact.
However, the Liberal party split after a scandal erupted, and
opposition built up from opposing political factions. By April,
1946, anarchy verging on civil war had developed. Revolts in the
provinces and a wave of terrorism commenced. Finally, martial law
was declared and order somewhat restored. This turmoil resulted in
the election of 1950 of a Conservative who was an admirer of Franco
and Hitler. He ruled as a dictator and used the police and the Army
to locate and exterminate the Liberals. An undeclared civil war
resulted which caused an estimated 200,000 deaths. The president was
ousted in 1953 by a military coup. Another repressive period, this

time a military dictator, continued for four years. In 1957, a
Liberal was elected by a Conservative-Liberal coalition; he soon
separated political rivals from the bandits who were profiting from
this period of terror and began to restore stability to the country.
However, the coalition government was unable to enact many needed
reforms, and the people lost interest in democratic processes. The
last two presidents have also been unable to overcome the problems
of parity in the Congress and have been forced to rule by decree.
Neither one has abused his powers, but neither one has been able
to resolve the existent social and economic problems.[3]

The Future

One source has forecasted the future for Columbia as follows:

The Future: The state of Colombia's social, political, and
economic institutions is such that a social revolution might
have erupted at any time in the past twenty years. The lack
of unity has kept the people from joining to seek peaceful
solutions to the nation's ills--they remain somewhat
immobilized and ineffective in achieving genuine progress.[4]

Characteristics of the Military Establishment

Institutions

The Constitution of Colombia provides for the establishment
of Armed Forces and authorizes the passage of laws for the establish-
ment of a national militia and a national police force. The
President is the Commander-in-Chief of the Armed Forces and is
authorized to make dispositions of the forces, to appoint military
officers in accordance with law, and if deemed necessary, to direct
military operations personally. In recognition of Colombia's
turbulent past, the Constitution provides that the President will
preserve or, when required, restore public order. The principal
military adviser to the President is the Minister of War, a Cabinet
member. The Minister is the senior general officer of the Army,
and he has supervisory functions over the three services and the

National Police. There is also a Commanding General of the Armed
Forces who is charged with responsibility for all functions of
command over the military services, the National Police, and the
Directorate-General of Services.[5]

The Armed Forces of Colombia includes an Army, a fairly strong
Air Force, and a small Navy. The size and composition of these
services have varied throughout the history of the country. The Army
has its own commander, headquarters, and staff. Its major formations
are brigades (called Operative Units) composed of varying numbers of
battalions of infantry and artillery. In some cases a cavalry
squadron is attached. The Army also has under its control those
services concerned with transport, communications, engineering, and
supply. Schools and branch centers are operated under centralized
control. The Navy has its headquarters and staff at Bogota. The
organization for naval operations takes due account of Colombia's
1,500-mile, two-ocean coastline, and its over 2,000 miles of rivers
navigable by light craft. There are several coastal and river bases;
the principal base is at Cartagena where ship repair facilities, ware-
houses, and the Naval Cadet School are located. The principal ships
of the Navy are destroyers and patrol escorts (frigates). A Corps
of Marine Infantry has units which serve at various naval bases and
on river patrol duty. The headquarters of the Air Force is also
located in Bogota. The Air Force consists of tactical units
(fighter bomber and light bombardment), a transport unit, and six
principal and several minor bases. The Air Force also has an
Aviation Infantry which performs guard and housekeeping duties.[6]

Personnel

The basic source of military manpower is the youth of the
country who are conscripted for duty. Although the law specifies
universal obligatory service, the system amounts in practice to a
selective process. The law provides a period of obligation for 30
years during which at least one active duty period must be served.
The law establishes this period of service from 12 to 24 months

although for some years the period has been set at 18 months. Since there are more young men available for duty than are required, the Armed Forces are able to induct men of satisfactory or better physical capabilities. Exemptions are not provided for illiteracy, and the illiteracy rate for conscripts approximates 40%, roughly the same percentage as the country at large. Non-commissioned officers (NCOs), all of whom are career soldiers, are selected from volunteers among the conscript classes near the end of their periods of service. They must undergo a screening before a board of officers and satisfactorily complete a 20-week course of instruction on academic and practical military subjects before appointment to the lowest NCO grade. All officers, except a few in technical and professional services, are trained in the cadet schools and come almost exclusively from the educated classes, i.e., the upper middle and upper classes, for economic and social reasons. The selection process is operated with considerable success to assure an intake of the better qualified candidates among those available. Officers in certain staff and professional specialties (law, medicine, veterinary medicine, engineering, architecture, chemistry, and physics) may be commissioned as junior officers before actually attaining their university degrees upon completion of a military orientation course at a service school. They will be dropped for technical incapacity if they fail to present their degree within four years.

The strengths of the armed forces are reported as follows: Army, 50,000; Air Force, 6,000; and Navy, 7,000, including 1,000 Marines.[8]

Roles of the Military Establishment

It may be assumed that the indigenous military forces of Colombia have the classic missions of security of the nation against external or internal threats. However, Colombia's history since its liberation is one of internal disorder rather than of foreign wars. During the 19th Century, there were some 80 armed rebellions, attempted

revolutions, and armed coups. The two most serious incidents
occurred from 1860-1862 and from 1899-1902. During this century,
Colombia has been free of serious armed revolts which can be
classified as civil war. It has been engaged in only one foreign
war, a short clash with Peru in 1932-33 over a boundary dispute in
the Amazon basin. Colombia has been beset in recent years, however,
by serious internal disorders in the forms of banditry and insurgency.
By comparison with other Latin American countries, there has been
little evidence of aggressive militarism. As previously stated, there
has been only one military coup (1953) against the constituted
civil government. In fact, since the constitutional revision of
1886, there have been only three generals elected president and only
one who has achieved dictatorial power by a coup (General Gustavo
Rojas Pinilla--1953-57). It was apparently in this same period that
the existing tradition of noninvolvement of the military in
politics occurred. Generally speaking, the military was successful
in staying out of active politics until about 1948, except for the
civil war of 1899-1902. A brief downfall of the military as a non-
political arm of government began with the riots and uprisings of
April, 1948. This active political involvement continued through the
period of the bloodless coup by General Rojas Pinnilla in 1953 and was
substantially terminated by his ouster by the military in 1957. In
August, 1958, the ruling Military Junta relinquished its power to
the new coalition presidential candidate and retired from active
political service. The position of Minister of War was the only
position in the new government held by a military man.[9]

Since the indigenous military are not engaged in the conduct
of a foreign war or in the Latin American pastime of militarism,
how then are the vast resources of the military establishment
utilized? First of all, much of the military's efforts are consumed
in combating the banditry plaguing the countryside and in containing
and eradicating the insurgency still somewhat persistent in some
regions. In addition, the indigenous military forces are committed
to an energetic program to assist in the alleviation of the chronic

economic and social ills of the country. It is to the credit of the
government and the people of Colombia that these two contributions are
aided and abetted by the civil sector of the country. Recognition of
these accomplishments is provided to the indigenous military not only
by official pronouncements but also by the favorable image held by
the people.

The indigenous military are engaged in many civic action
projects with the objective of improving the economic and social
situations in Colombia. In this regard, it is pertinent to quote the
words of Lieutenant General Alberto Ruiz Novoa, the former War
Minister of Colombia, who has very aptly expressed the aims of the
Colombian Armed Forces.

> Military civic action has as its purpose to extend to vast
> sectors of the populace the government's help, especially
> in the field of social assistance, through the military
> organization of the nation. It is based on the premise that
> the use of military means to accomplish programs of economic
> and social welfare will awaken in the benefited population
> trust and sympathy towards the government and the military
> forces. These programs are developed without affecting the
> military efficiency of the armed institutions or compromising
> their principal functions.
> Besides accomplishing an effective program of assistance
> to the people, military civic action gains the support of the
> populace for the legitimate and rightful regime and for its
> armed forces. It also helps to prove the usefulness of the
> army and to counter the attacks of those who see in military
> expenditures only a useless drain of public funds, and who
> deny the importance of the mission of the armed forces within
> the state.
> Besides reaching the objective of counteracting the
> campaigns of the Communists among the people against the
> armed institutions, civic action makes known the concern of
> the government for the less favored and stops those who
> foster insurrection, by proving that welfare and social
> improvement can come to the people in a legal and orderly
> manner.[10]

The US Southern Command has commented on the effectiveness of
this program as follows:

> The civic action program in Colombia has been very effective
> in promoting economic and social development and improving
> internal security capability. . . . Official reports and
> officers in the field give a great deal of credit to civic

action for bringing the people in violence areas to the
government side and influencing them to give information
and help to the government thus making possible the capture
or elimination of many bandits and the pacification of
some areas.[11]

The spectrum of civic action activities is very broad as
reflected in the reports of several Colombian sources.

In a discussion of the nonmilitary role of the indigenous
military, an article in a prominent Colombian newspaper has commented
in substance as follows.   The Navy and Air Force, in coordination
with the Ministries of Interior and Health, are actively engaged in
the development of the national territories (areas not a part of any
of the provinces or departments).   Under present conditions, these
national territories actually constitute a threat to sovereignty.
This area represents some 47% of the land of Colombia and covers some
500,000 square kilometers.   While census data is generally poor, some
300,000 inhabitants were recorded in 1964.   Many of these areas are
sparsely settled, and the rural population is less advanced than
people in other parts of the country.   Thus, this effort by govern-
mental agencies is directed towards colonization and provision of
specific improvements in such areas as health and transportation.
The Air Force and the national airline (SATENA) provide invaluable
transportation service including the movement of livestock.   The Navy
is providing valuable knowledge on such subjects as hydrography, water
temperatures, and chemical composition.   Also, naval specialists in
such fields as electronics, electricity, mechanical engineering, and
refrigeration provide technical assistance to the rural communities.
The Navy has assisted the fishing industry, and it has outfitted
several of its river boats with the specific objective of providing
assistance.   Military personnel also provide medical and dental
service, including hospitalization and immunizations.   Most importantly,
they are training the local people in tasks where the latter can
assist themselves.   For these programs, many of the local inhabitants
are being recruited and trained in a number of services including
first aid, sanitary education, and programs of environmental

improvement. The Navy also operates a commissary ship which sells provisions at cost. Due to the low population, the tax base for the national territories is low and requires budget increases from other sources. There is a need to conduct an inventory of the national resources of these areas. Additionally, there is a need for improved transportation facilities, including the building of airports. The Army is also engaged in this project. It is organizing teams of specialists and indigenous personnel to work in the area. For example, teams will consist of agricultural and livestock experts, nurses, primary teachers, and experts in light industry.[12]

Perhaps two specific statements from this article will emphasize the fundamental importance of these projects: "These regions are going to be the country's salvation when in the year 2000 there will be 50 million inhabitants who will have to live there because we will have no space here."[13] "In the not too distant future the national territories will be the agricultural breadbasket of the nation."[14]

Another Colombian newspaper has stated that the military forces of Colombia have announced the initiation of a ten-year anti-communist plan. The plan has been approved by President Lleras and is directed towards improved civic action programs and colonization of the national territories. Among other things, the military forces have requested greater cooperation from indigenous organizations of social assistance as well as requesting technical and economic aid in order that civic action programs will furnish better services to the people. The aid of semi-official agencies, the church, the teaching profession, industry, and regional leaders has also been solicited. The tasks of the various military services have been established as follows:

> Apart from the essential work of the "ten-year plan," the Army of Colombia will work during the next ten years on the following fronts: the construction of highways, bridges and schools, the maintenance of roads, the drilling of wells, studies and plans for the development of military colonization, and the organization of public libraries.
> The Navy of the Republic of Colombia, for its part, has received the following commission: the transportation of

petroleum and food by sea, assistance, in special cases, in supplying the coasts, the transportation of passengers on the rivers, hospital service on the rivers and on the coasts, by the accommodation of its units.

The Air Force will collaborate in these aspects: support with maintenance services to the flight equipment of the National Service of Apprenticeship . . . , the regulation and maintenance of landing fields, the organization and operation of a consumers' cooperative in the "La Macarena" region, a campaign of vaccination in the national territories, the preparation of aircraft that will operate as flying hospitals. on the Pacific coast and in the national territories.[15]

NOTES

1. Hartley F. Dame, Latin America 1968, The World Today Series
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2. Ibid.

3. Ibid., pp. 23-25.

4. Ibid., p. 26.

5. U.S. Army, Department of the Army Pamphlet 550-26, U.S. Army Area
    Handbook for Colombia (Washington: U.S. Army, 1961), pp. 595-603.

6. Ibid., pp. 591-604-605.

7. Ibid., pp. 606-607.

8. David Wood, "Armed Forces in Central and South America,"
    Adelphi Papers, Number 34 (April, 1967), p. 12.

9. U.S. Army Handbook for Colombia, pp. 595-602.

10. Final Report: Fourth Conference of the American Armies--July, 1963
    (Fort Amador, C.Z.: Southern Command Headquarters, U.S. Army,
    1963), p. 70.

11. U.S. Southern Command, Civic Action Projects Report, January, 1965
    January 31, 1965, Vol. I (Canal Zone: 1966), p. 244.

12. "Government Development of National Territories," El Tiempo
    (Bogota), September 15, 1968, pp. 1, 20, 24. Translations on
    Latin America No. 108, Joint Publications Research Service,
    November 7, 1968, pp. 43-58.

13. Ibid., p. 1.

14. Ibid., p. 24.

15. "Ten Year Anticommunist Plan in Effect," El Siglo (Bogota),
    September 25, 1968, p. 9. Translations on Latin America No. 113,
    Joint Publications Research Service, November 21, 1968, pp. 18-21.

APPENDIX E

THE UNITED STATES ARMED FORCES INSTITUTE

By

Thomas G. Nicholson

INTRODUCTION

The purpose of this document is to provide a "mini" case study of the United States Armed Forces Institute (USAFI). USAFI has the general mission of providing by correspondence, academic courses to all members of the military services.

The initial portion of the report is a short description of the development of correspondence study in the United States over roughly one-hundred years. Also included is a brief history of the USAFI organization itself. This will be followed by an explanation of the mission, organization, relationships with civilian agencies, course offerings, course development, university correspondence courses, enrollment procedures, testing program, trends, persons involved in USAFI development, statistical highlights, future plans, and conclusions.

The Early American Experience

Correspondence schools played a significant, albeit generally unrecognized, role in the early educational enhancement of adults in the United States. Two of the earliest attempts were described by John Noffsinger:

> In 1873 an organization was formed calling itself The Society to Encourage Studies at Home. It sought to stimulate the formation of home study groups, prepared guides to reading and conducted a regular correspondence with members. Failure to adapt instruction to the ability and requirements of the students soon caused the society to disband. Ten years later a Correspondence University, consisting of an association of instructors from various colleges and universities, was founded in Ithica, New York, stating as its purpose, "to supplement the work of other educational institutions by instructing persons who from any cause were unable to attend them" . . . . .
> For a variety of reasons the Correspondence University . . . soon died a natural death.[1]

The Chautaqua Institute is cited as the first American institution to establish correspondence study on a regular basis. William Rainey Harper, a professor of Hebrew at Yale, initially established a rather informal "advice by mail" operation in 1879. It proved so popular that by 1883 there were several course offerings under various instructors which were offered for a ten dollar fee per course.[2]

A few years later when Professor Harper became the first president of the University of Chicago he established a correspondence division in the extension department of the new university. The idea of education by correspondence slowly spread to other universities and even to some high schools and junior colleges.[3]

University correspondence courses were generally taught by regular faculty members through assigned readings, preparation of the written lessons by students, and return of the papers with comments by the instructors. The courses were generally extensions of regular academic courses and were offered on a regular credit basis. Students were frequently allowed to take half of the courses in a degree program by correspondence. In some cases the courses by correspondence were offered at special reduced fees.[4]

As correspondence courses expanded in the universities they were recognized as a means for quick profit by commercial institutions. The first was a course in coal mining offered by Thomas Foster, the editor of the Mining Herald, in Shenandoah, Pennsylvania. This initial start led to the establishment of the International Correspondence Schools of Scranton, Pennsylvania. By 1920 this largest and best known of all correspondence schools had an enrollment of 2,271,193 students. This successful precedent prompted an "explosion" in correspondence course offerings as hundreds of correspondence schools were formed by individuals, partnerships, and stock companies. The courses were primarily vocational but some offered academic high school and college level courses.[5]

There were many abuses during this period of rapid expansion,
including: high pressure sales tactics, false placement promises,
shoddy instruction, and high prices. In many cases the drop-out rates
ran as high as 90% after payment of a non-refundable fee. By World
War I commercial correspondence courses brought more systematic
learning opportunities to more adults than any previous institutional
form of adult education, but the practices used by many of the
correspondence schools laid the groundwork for the dramatic reforms
that followed.[6]

By 1925 the money spent annually in fees for profit-making
correspondence schools in the United States was in the neighborhood
of seven million dollars. In the first comprehensive study of such
schools Noffsinger discovered that:

> There is no official list of private correspondence schools
> because there is no method of registration, official or
> unofficial, but careful examination has resulted in the
> compilation of a list of 300 active private correspondence
> schools; probably there are fifty more. New schools are
> founded in the last five years. Where are organized as
> a rule by men who were at one time salesmen or minor
> officials of the older, well established and prosperous
> schools. Seeing the possibilities of quick and easy
> profits if certain tactics were adopted, these man have
> decided to make the most of them for themselves.[7]

The same study revealed that 80% of these schools were owned
or controlled by private persons and the rest by partnerships and
stock companies. Some of them specialized in elementary, high
school, and college courses, but the large percentage of them were
"diploma mills" which granted questionable degrees for big fees and
minimum work. As was the case earlier, most specialized in voca-
tional courses. Some offered a vast array of subjects; while others
limited their activities to one specialty.[8]

The correspondence schools of this era were not restricted by
governmental regulation and in most states were looked upon as
business enterprises rather than educational institutions, so the
concept of "let the buyer beware" apparently prevailed.

Moffsinger provided this scathing indictment of correspondence schools of that period in the conclusion of his study:

Unfortunately the majority of correspondence schools are not well equipped and still less conscientiously conducted. A large proportion of them are not conducted as schools at all. They are commercial enterprises designed to make quick profits. Many of them are in the shady zone bordering on the criminal. A large proportion of those who enroll in correspondence courses are wasting their time, money and energy or even being swindled. On the other hand, there is also a small minority of correspondence schools which, although the making of profit is their first consideration, a dangerous situation at best in education, do none the less give value received and can show a record of concrete benefit to thousands of students.[9]

Many schools took steps to improve their standards and several states responded by passing restrictive legislation and/or placing them under the supervision of state departments of education.[10]

The National Home Study Council was organized in 1926 to raise the standards of the correspondence schools and John S. Noffsinger, the chief critic of correspondence schools, was hired as its executive director. This resulted in a listing of schools that met minimum standards which was published in the form of a directory. In 1956 the National Home Study Council established an accrediting commission that was recognized by the U.S. Commissioner of Education, and this led to publication of a List of Accredited Home Study Schools.[11]

Historical Review of USAFI[12]

On December 24, 1941, only 17 days after the bombing of Pearl Harbor, the War Department authorized the establishment of a correspondence school to be known as the Army Institute. The mission was to provide educational opportunities for enlisted personnel of the Army.

Actual operations of the Institute began at Madison, Wisconsin, on April 1, 1942, in a building which was donated by the University of Wisconsin. The Institute began with an initial offering of 64 correspondence courses in technical education and a few academic courses at the secondary and junior college levels. In

addition, several hundred university and high school courses were offered through the Army Institute by the extension divisions of participating colleges and universities under contract with the government.

On September 16, 1942, the Institute's offerings were extended to the personnel of the Navy, Marine Corps, and Coast Guard. The name of the Institute was also changed to the United States Armed Forces Institute in February, 1943, consistent with the expanded mission, and had been known popularly as USAFI ever since. In July, 1943, commissioned officers were also permitted to participate in the USAFI program. Three years later Secretary of War Robert P. Patterson provided permanency for the Institute by approving it as a peacetime educational activity.

The basic premise that led to establishment of USAFI has remained unchanged over more than thirty years of operation; that is, men who use their off-duty time constructively are more proficient in their military jobs, are able to advance their long-range personal ambitions, and are happier and better citizens. The voluntary, off-duty education programs of the separate branches of service had proved effective in encouraging military personnel to make profitable use of off-duty time; therefore, the decision was made to retain USAFI as a permanent activity.

In 1949 USAFI began operating under the Armed Forces Information and Education Division of the Office of the Secretary of Defense. In January, 1950, the direction of the United States Armed Forces Institute was vested in a civilian director in order to establish stability and continuity for its operation. This was necessary because military officers were subject to frequent transfer. USAFI presently operates as a field agency of the Office of the Deputy Assistant Secretary of Defense for Education, located in the Pentagon, Washington, D.C.

Mission of USAFI

The mission os USAFI is to provide educational services and materials on subjects normally taught in civilian academic institutions up to and including the graduate level, in fields providing opportunities for the professional development of members of the Army, Navy, Marine Corps, Air Force, and Coast Guard. Students in the three Service Academies under the Department of Defense may also supplement their education, increase their efficiency in present assignments and their capabilities for assuming greater responsibilities, or satisfy their intellectual desires by participation in USAFI programs.

To carry out this mission, USAFI staff conducts appropriate educational research in order to evaluate existing course offerings, establishes appropriate relationships between USAFI course offerings and all other educational programs within Department of Defense, and develops plans to meet anticipated future needs.

The mission is carried out by performing the following functions:

1. Developing educational materials in accord with the highest civilian standards.

2. Developing guidance and counseling programs, materials, and services in order to assist education officers in the Army, Navy, Air Force, Marine Corps, and Coast Guard.

3. Providing for student enrollment in USAFI correspondence and group study courses and in correspondence courses offered by contract with colleges and universities through USAFI, Madison.

4. Maintaining records of student enrollment and achievement in USAFI courses.

5. Providing for the review and grading of lessons submitted by students enrolled in USAFI correspondence courses.

6. Controlling the security of USAFI testing materials.

7. Scoring USAFI tests administered in the field.

8. Issuing reports of achievement to the servicemen and to the custodian of his personnel file.

9. Establishing permanent records of student achieve-
   ment to educational institutions and other agencies.

10. Procuring and maintaining stock levels of USAFI
    educational materials adequate to fulfill the needs
    of the military personnel within the geographical
    area served.

USAFI Organizational Structure

The United States Armed Forces Institute is a field activity
of the Director, Directorate for Education Programs and Management
Training, Office of the Deputy Assistant Secretary of Defense
(Education).

The USAFI program is administered in the field by education
officers (often professional civilian educators). They are
responsible for counseling military personnel prior to enrollment
in USAFI courses and assisting the prospective USAFI student in the
selection of courses best suited to his educational objective.

Further, the education officers are responsible for administer-
ing the USAFI testing program in the field. In carrying out the
test administration function, he is responsible for insuring that
the integrity of the testing program is preserved by proper test
security, monitoring tests, and advising the student on matters
concerning test interpretation.

Education offices, manned by either civilians or military
personnel, are located in military installations and aboard ships
throughout the world in order to insure that the education program
of the United States Armed Forces Institute is available to military
personnel regardless of where stationed.

Relationships with Civilian Educators

From the beginning, the policy direction of the United States
Armed Forces Institute has been strongly influenced by the develop-
ment and administration of prominent educators who worked directly
in the development and administration of the USAFI program during the

war, and this relationship has continued through the close association of the professional staff at USAFI with their civilian counterparts at the university, college, technical school, high school, and pre-high school levels.

The Education Directorate at USAFI on a day-to-day basis works with textbook authors and test specialists in the development of materials in order to make its educational materials of the highest quality possible. Members of the staff are actively associated with professional organizations in their particular areas of interest in order to keep abreast with the latest developments. Many worthwhile contributions to professional journals have been made by the USAFI staff.

Commission on Accreditation of Service Experiences (CASE)

This Commission of the American Council on Education maintains a liaison with the Officer of the Deputy Assistant Secretary of Defense (Education) and with secondary schools, colleges and universities, regional accrediting associations, and other organizations interested in accreditation. USAFI obtains guidance through the Office of the Deputy Assistant Secretary of Defense (Education) which monitors its operation.

Upon request, the commission evaluates USAFI courses and tests in terms of civilian credit and makes credit recommendations. In addition, the Commission has overall supervision of the entire USAFI testing program at the high school level and above. At present the Commission is composed of 12 civilian members appointed by the President of the American Council on Education, who is an ex officio member. Representatives of the Office of the Deputy Assistant Secretary of Defense (Education) and of the Military Departments--Army, Navy, Air Force, Marine Corps, Coast Guard-- attend the semi-annual meetings of the Commission as consultants and observers.

All USAFI courses at the high school and college levels are evaluated by the Commission on Accreditation of Service Experiences of the American Council on Education. Recommendations are made as to the amount of credit to be granted for these courses; however, the prerogative for the amount of credit granted remains with the educational institutions involved.

Course Offerings

Pre-High School Courses

USAFI provides courses in reading, arithmetic, English skills, introductory science, and introductory social studies at all levels below high school, for use mainly as components of the Core-GED Program, using the tutorial method, or in class instruction supervised by qualified instructors. These courses cover all the academic material essential for the education of adults from beginning reading to eighth grade equivalency. An eighth grade equivalency certificate is available by examination.

Core-GED Program

The Core-GED Program is an integrated program comprising four series of courses together with tests, through which a student is enabled to move at his own pace to high school equivalency. The subjects offered are English (including reading), mathematics, social studies, and science. By means of the tests the student is placed in each of the subjects at his present level of academic competency and advances as speedily as his ability permits. The program is uniform throughout the military, and records of his progress are kept at USAFI, thus enabling him to continue the program without loss of standing or adjustment to new materials even when he has to move to a new base. Upon completion, the student may attain high school equivalency by passing the GED tests.

High School Courses

Most of the courses that are taught in civilian high schools can be taken through USAFI. These high school level courses can be studied by either the independent study or class instruction method. The following courses are available:

Reading: Developmental Reading (available in 1971).

English: Ninth Grade English, Practical English Usage, Advanced Composition.

Literature: Writings of English Authors, Writings of American Authors.

Mathematics: Review Arithmetic, General Mathematics, Beginning Algebra, Beginning Algebra (Programmed), Advanced Algebra, Geometry, Trigonometry.

Social Studies: American History, World History, American Government, World Geography, American Democracy, The Negro in American History (will be available in 1971).

Science: Biology, General Science, Chemistry, Physics.

Business-Economic Education: Bookkeeping and Accounting, Business Mathematics, Business Law, Economics, General Business, Typewriting, Gregg Shorthand, Salesmanship.

Languages: Latin, French, German, Russian, Spanish, Italian.

College Courses

Basic and introductory courses at the college level are also offered by USAFI. These courses include:

Language Arts: English Composition, Survey of English Literature, Survey of American Literature, Speech. A course in Afro-American Literature will be available in 1971.

Mathematics: Intermediate College Algebra, College Algebra, Analytic Geometry and Calculus, Calculus, Plane Trigonometry, Basic Statistics, Differential Equations, Linear Algegra.

Psychology: General Psychology, Psychology of Personality and Adjustment, Educational Psychology.

Social Studies: History of the United States, History of
Western Civilization, Modern European History, Modern
Asian Governments, History of the Middle East. Latin
American History, Russian History, Problems of Contemporary
Latin America, International Relations, History of Southeast
Asia, Modern European History, Modern European Governments,
American Government, Social Problems, Criminology, History
of the American Negro, Anthropology, Introduction to
Education.

Science: Biology, Healthful Living, Principles of Physical
Science, Chemistry, Physics, Physical Geography, Cultural
Geography, Astronomy, Oceanography, Geology, Geophysics
and Forestry to be available in 1971.

Business Administration and Economics: Principles of
Accounting, Intermediate Accounting, Economics, Introduction
to Business, Personnel Management, Office Management, Real
Estate Principles, Risk and Insurance Business Law,
Principles of Management, Introduction to Data Processing
Marketing.

Languages: Reading courses in Latin, French, German, Russian,
Spanish, Italian. Audio-lingual or spoken language courses
in French, Italian, Chinese, Spanish, Portuguese, Turkish,
German, Hungarian, Russian, Melanesian Pidgin English, Dutch,
Norwegian, Greek, Thai, Burmese, Hindustani, Danish, Japanese,
Korean, Malay, Serbo-Croatian, Iraqi Arabic, Finnish,
Vietnamese.

Occupational Courses

USAFI's occupational courses give military personnel an
opportunity to supplement their military training by learning
principles and developing skills that may be applied in their
military occupations. These courses also aid in preparing them
for civilian vocations. The following courses are available:

Aeronautics: General Aeronautics, Jet Aircraft Engines.

Auto-Mechanics: Engines, Chassis, Transmission and
Electrical Units.

Building Construction: Carpentry, Plumbing, Refrigeration.

Applied Arts: Mechanical Drawing.

Electricity and Electronics: Fundamentals of Electricity, Introduction to Electronics.

Engines: Introduction to Diesel Engines.

Technical Mathematics: The Slide Rule, Technical Mathematics.

Radio and Television: Fundamentals of Radio, Intermediate Radio, Radio Servicing, Television, Television Servicing.

Technology: History of Technology.

Other Technical Courses: Technical Writing, Introduction to Quality Control, Law Enforcement.

Course Development

A USAFI course is an integrated unit of instructional material designed to present knowledge on a specific subject. Each course is centered around a textbook. A study guide is provided to make the textbook more suitable for independent study and to help the student reach the goals set for the course. Workbooks or supplementary texts are often furnished as additional aids in a course.

Instructor's Guide for Class Instruction Course

For class instruction courses an instructor's guide is often prepared. This provides a study schedule, points out topics of special emphasis, and offers teaching suggestions. In addition, graphic aids and other supplementary materials may be furnished to assist the student and the instructor.

Selection of Textbooks

The textbooks used in nearly all USAFI courses are the same as those used in civilian classrooms. Textbooks are selected through the cooperative efforts of publishers, national professional associations, education specialists employed at USAFI, and nationally recognized authorities. Representative high schools, junior colleges, colleges, and universities supply USAFI with information on the most popular textbooks used in various subject areas.

An initial review and selection of texts is made by USAFI education specialists. Three to five of these texts are submitted to a panel of several subject matter specialists for evaluation and recommendations. The final selection is then made by the Director, USAFI.

Preparation of the Study Guide

The study guide is the student's constant helper. In many ways it is like a teacher: it organizes the course into lessons, it tells what work is to be done in each lesson, and it offers suggestions and help for doing that work. Once the textbooks have been selected, USAFI arranges with a well-qualified writer in the subject area to prepare the study guide. If the author of the text is not available, a writer is chosen who has taught in the subject area.

The study guide writer organizes the course into appropriate units of study. He writes an introduction which is related to the general organization of the guide and which briefly outlines the materials to be covered in each unit. He also assigns text materials for each unit and presents, in study notes, items in each assignment that require emphasis, clarification, or elaboration. In addition, he provides self-examinations that enable the student to measure his progress in the course from unit to unit.

Grading Written Assignments

For the independent study student, the written assignment provides for a systematic exchange of information between the student and the instructor. The written assignments submitted by the student provide the instructor with a good idea of the student's progress and instructional needs. The instructor's comments on the graded papers, which are returned to the student, strengthen the student in his progress and help him through the difficult parts of the course. Lessons for some USAFI courses are graded by the computer with carefully conceived instructor comments programmed as appropriate. The use of computer assisted lesson service makes for ease of student

response, carefully prepared instructor response and "in today out tomorrow" expeditious communication to the student.

Evaluation of Student Achievement

A test is available to measure reliably and accurately the degree to which the student has learned the material of the course.

Since July 1, 1959, all tests prepared for USAFI courses have been prepared by civilian educational instructions, pretested with approximately 300 students, and finally standardized against approximately 1,000 students. These tests are reported in terms of percentiles based on the norming population. This permits the achievement of the USAFI student to be directly compared with the achievement of his civilian counterpart.

University Correspondence Courses

Forty-five colleges and universities cooperate with USAFI in offering correspondence courses. The student enrolls and corresponds directly with the university during the period of instruction. USAFI assumes the cost of the lesson service, and the student pays the remaining cost for the course. Over 6,000 courses offered by participating colleges and universities are listed in the catalog entitled Correspondence Courses Offered by Colleges and Universities through the United States Armed Forces Institute.

Colleges and Universities Offering
Courses Through USAFI

The colleges and universities presently participating in the program are as follows:

        University of Alabama, University, Alabama
        University of Alaska, College, Alaska
        Brigham Young University, Provo, Utah
        University of California, Berkeley, California
        University of Colorado, Boulder, Colorado
        University of Florida, Gainesville, Florida

Georgia Center for Continuing Education, University of
    Georgia, Athens, Georgia

University of Idaho, Moscow, Idaho

University of Illinois, Champaign, Illinois

Indiana State University, Terre Haute, Indiana

Indiana University, Bloomington, Indiana

State University of Iowa, Iowa City, Iowa

University of Kansas, Lawrence, Kansas

University of Kentucky, Lexington, Kentucky

Louisiana State University and Agricultural and Mechanical
    College, Baton Rough, Louisiana

Loyola University, Chicago, Illinois

University of Minnesota, Minneapolis, Minnesota

Mississippi State University, State College, Mississippi

University of Mississippi, University, Mississippi

University of Southern Mississippi, Hattiesburg, Mississippi

University of Missouri, Columbia, Missouri

University of Nebraska, Lincoln, Nebraska

University of Nevada, Reno, Nevada

University of New Mexico, Albuquerque, New Mexico

University of North Carolina, Chapel Hill, North Carolina

North Carolina State University, Raleigh, North Carolina

University of North Dakota, Grand Forks, North Dakota

Ohio University, Athens, Ohio

Oklahoma State University of Agriculture and Applied Science,
    Stillwater, Oklahoma

University of Oklahoma, Norman, Oklahoma

Oregon State System of Higher Education, Eugene, Oregon

Pennsylvania State University, University Park, Pennsylvania

University of South Carolina, Columbia, South Carolina

University of South Dakota, Vermillion, South Dakota

Southern Methodist University, Dallas, Texas

University of Tennessee, Knoxville, Tennessee

Texas Tech University, Lubbock, Texas

University of Texas, Austin, Texas

Utah State University of Agriculture and Applied Science, Logan, Utah

University of Utah, Salt Lake City, Utah

Washington State University, Pullman, Washington

University of Washington, Seattle, Washington

Western Washington State College, Bellingham, Washington

University of Wisconsin, Madison, Wisconsin

University of Wyoming, Laramie, Wyoming

Enrollment Procedures

Eligibility for USAFI Courses

Members of the Army, Navy, Air Force, Marine Corps, and Coast Guard on active duty for 120 days or more are eligible for USAFI services.

Students may enroll in USAFI courses by mailing a completed application form direct to USAFI or by registering through Registration Sections authorized and established by the Army, Navy, and Air Force to provide "across the counter" registration service to prospective students.

Course Fees

As with any correspondence study program, various fees are charged students by USAFI and the participating colleges and universities. In the case of USAFI, this fee is nominal and applies to independent study courses at the high school, occupational, and college levels. USAFI class instruction courses are free. For participating college and university courses, fees vary but are considerably less than they would be under normal extension course arrangement. As an added bonus, a student is entitled to a free USAFI independent study course enrollment for each of the USAFI courses with fee, participating college and university courses, and class instruction courses he satisfactorily completes. Detailed fee information may be found in the USAFI Catalog or in the catalog,

Correspondence Courses Offered by Colleges and Universities through
the United States Armed Forces Institute.

Time Limits

The USAFI student has 12 months to complete a USAFI indepen-
dent study course (or within 12 months of an honorable discharge)
and has 24 months to complete a course offered by a participating
college or university.

Testing Program

The testing program has always been an important part of the
USAFI education program. In addition to the terminal test for
USAFI courses, which are presently standardized against a civilian
population of at least 1,000 students, the high school level and the
college level General Education Development (GED) Tests merit special
mention.

The originals of these tests were developed during World War II
and were based upon the philosophy that an adult learns a great deal
informally, which, if this knowledge were measurable, would make it
possible to compare his educational level with that of an individual
who had obtained his education, for the most part, formally. These
tests and their revisions have been widely used by military personnel
as evidence of educational development obtained informally. It is
estimated that some two million military personnel have attained
high school equivalency by successfully passing the battery of high
school GED tests. These results have been widely accepted both by
colleges and universities and by industry in lieu of formal high
school graduation. Additionally, advanced college standing has been
granted to numerous military personnel as a result of passing the
college level GED tests.

On July 1, 1965, the General Examinations of the College-Level
Examination Program, sponsored by the College Entrance Examination
Board, replaced the college level GED tests, which had been in
existence since 1943. The General Examinations consist of a bettery of

five tests, namely, English Composition, Social Science-History,
Natural Sciences, Humanities, and Mathematics. The American Council
of Education recommends 30 semester hours credit for the successful
completion of the battery of tests.

Terminal tests for USAFI high school, college and occupational
courses have been standardized against a civilian population consist-
ing of at least 1,000 students from forty educational institutions.
These tests are called USAFI Subject Standardized Tests. The results
are reported in percentiles, thus making it possible for school
officials to directly compare the performance of the USAFI student
with his civilian counterpart. These tests can be administered
without enrollment in USAFI courses such that the concept of advanced
standing by examination is carried out. During a recent year some
21,000 military personnel took advantage of these tests with some
15,000 passing; enabling the serviceman to shorten the time required
in resident degree programs.

Language Accreditation

Students with formal language training at Service schools as
well as those acquiring fluency or increasing proficiency while
serving on overseas tours of duty are converting their language skills
to resident credits at colleges and universities with the help of
USAFI. This recognition by civilian schools is made possible by
cooperation of CASE, USAFI, and the Defense Language Institute (DLI),
which produces the Language Proficiency Tests used by all Services.

Trends

Since its beginning, over seven million course enrollments
have been processed through the United Armed Forces Institute. During
the past several years, the volume of the program has stabilized in
correlation with the stable population in the military establishment.
This is portrayed in the following table.

USAFI World-Wide Activity: FY 1966, FY 1967, FY 1968, FY 1969.

Activity	FY 1966	FY 1967	FY 1968	FY 1969
Enrollments	304,222	288,040	289,827	270,302
Correspondence	116,722	131,774	141,295	140,999
Group Study	170,506	135,287	123,500	106,178
Participating Colleges	16,994	20,979	25,032	23,125
Testing	832,911	890,501	892,657	866,180
Lessons	391,728	402,836	398,818	389,489
Test Reports to Civilian Agencies	88,252	88,065	91,023	86,239

Strictly a correspondence school in the beginning, USAFI's educational materials have been gradually used more and more in group study classes. In this situation, USAFI materials are used by a local instructor, and a class is carried on in a conventional manner. This trend has continued to the present with increasing enrollment in group study classes. In Fiscal Year 1968, 47% of the enrollments in USAFI courses were in group study classes.

Personalities Instrumental in the Establishment of USAFI

Robert P. Patterson -- Secretary of War.

Brigadier General Frederick Osborne -- Chairman of Selective Service Advisory Committee; Chairman of Joint Army-Navy Committee on Welfare and Recreation; appointed Chief of Morale Branch of the Army in 1941.

Colonel Francis T. Spaulding -- On leave from Harvard University as Dean of Education; served as special consultant to General Osborne and to Joint Army Navy Committee; headed the Education Branch within Morale Division.

Lt. Colonel William R. Young -- With Pennsylvania State College;
        enthusiastic supporter of correspondence study; laid ground-
        work for the Institute under the supervision of Colonel
        Spaulding; named first Commandant of the Institute.

Dr. Clarence Dykstra -- President of University of Wisconsin on leave
        as Director of Selective Service; chaired Subcommittee on
        Education of Joint Army-Navy Committee on Welfare and
        Recreation, which recommended establishment of Army Institute
        in 1941.

Dr. George Tuttle -- With American Council on Education; supervised
        the project of producing the Guide to the Evaluation of
        Education Experiences in the Armed Services in 1954.

Dr. W. W. Charters -- Formerly with Ohio State University; member of
        original Advisory Committee; prepared report on "Findings and
        Recommendations of USAFI Evaluation Study" in 1951.

Dr. Everet F. Lindquist, State University of Iowa, and

Dr. Ralph Tyler, now Director of Center for Advanced Study in the
        Behavioral Sciences, Stanford, were instrumental in the
        testing program; sometimes widely hailed as the "fathers of
        the General Educational Development Tests."

Statistical Highlights

1. Since beginning operations in April, 1942 through Fiscal
Year, 1969, 7,375,869 enrollments in courses developed by USAFI have
been processed. Some 300,000 military personnel enroll through
USAFI each year.

2. 261,733 enrollments have been processed through the
participating college program.

3. During this same period, 2,084,189 course-related tests
have been administered and reported through USAFI.

4. In the non-course related course testing area 3,971,230
reports of high school General Educational Development (GED)
Tests have been reported.

5. 151,875 USAFI subject examinations (now deleted from the USAFI Program) were administered and reported.

6. 38,560 "The United States Armed Forces Institute Educational Classification Test 2CX" were processed and reported.

7. The total of all tests processed through USAFI since its beginning is 7,521,160. Interestingly enough this total closely approximates the number of enrollments--7,375,869--processed through USAFI during the same period of time. (Note: The above total of tests processed does not include the pre-high school tests.)

8. Nearly 1,000,000 individual tests are processed by USAFI each year.

9. Nearly 100,000 military personnel successfully complete the High School General Educational Development (GED) Tests annually.

10. Over 90,000 official reports of USAFI achievement are sent to high schools, colleges and universities, technical schools, and other civilian agencies each year by USAFI, Madison.

11. Over 2,000,000 pieces of mail are handled by USAFI, Madison, yearly.

12. Record keeping, reporting and test processing at USAFI have been centralized into a computer complex.

13. Computer aided lesson service is being implemented.

14. USAFI Registration and Testing Sections are established throughout the world, including Vietnam.

Future Plans of USAFI

USAFI plans to continue to develop educational materials in courses normally offered in civilian schools in accordance with the highest academic standards such that the educational efforts of military personnel will be acceptable in civilian institutions. The United States Armed Force Institute will attempt to meet the following four major educational needs of military personnel:

1. Supplemental: Since USAFI is not a credit-granting instutution, courses will be provided that will have a high probability of acceptance at degree-granting institutions for those military personnel who are pursuing degrees at the baccalaureate level.

2. Augmentation: Courses will be provided that will enable the individual who has a degree in a given discipline, such as history, to augment his knowledge by courses in another field that he may find necessary in order to better perform his military assignment. Courses will also be provided for the graduate of a military academy who feels a need for more knowledge in the liberal arts fields.

3. USAFI will continue to work closely with the Defense Language Institute in the development of spoken language courses. It is hoped that tests will be developed to validate achievement in spoken languages for military purposes as well as for recognition by civilian institutions in terms of granting credit for proficiency as measured by these instruments.

4. USAFI will continue to offer courses designed for raising the general educational level of the individual serviceman so that he can advance in his military profession. Preparatory courses to aid the individual to progress through "elementary" school to high school level will continue to be developed and improved. High school level courses aimed toward a high school diploma, together with an appropriate testing program geared to respond to educational experiences informally attained, will continue to be made available in order that the serviceman can present valid evidence of a change in his educational level. College level courses that are suitable to these needs, together with an adequate testing program to validate educational achievement and provide advanced standing at colleges and universities, will continue to be offered.

The above four categories obviously are neither exclusive nor discrete, since all four could apply to a single serviceman who is raising his educational level, supplementing an off-duty degree program, and at the same time augmenting his educational experiences.

Conclusion and Implications for
the Study of NFE

This paper provides an illustration of what a basically non-educational government ministry has done to take care of the educational needs of its personnel. The USAFI presents a model of a dualistic system of formal and non-formal education in which servicemen get education through a variety of programes--some in-school, some out-of-school, some in cooperation with Universities, and some within the military. This case study illustrates the position that it is futile to attempt to dichotomize or definitely distinguish between formal and non-formal education.

NOTES

1. John S. Noffsinger, <u>Correspondence Schools, Lyceums, Chautauquas</u> (New York: Macmillan Company, 1926), pp. 4-7.

2. Malcolm Knowles, <u>The Adult Education Movement in the United States</u> (New York: Holt, Rinehart and Winston, Inc., 1962), pp. 39-40.

3. <u>Ibid</u>.

4. <u>Ibid</u>.

5. <u>Ibid</u>.

6. <u>Ibid</u>.

7. Noffsinger, <u>op. cit</u>., pp. 15-16.

8. <u>Ibid</u>.

9. <u>Ibid</u>., pp. 88-89.

10. Knowles, <u>op. cit</u>., pp. 132-133.

11. <u>Ibid</u>.

12. As indicated in the introduction to this study, the information about USAFI was drawn exclusively from materials furnished by the Institute. In the interest of intellectual honesty it is necessary to state that the information about USAFI presented in the balance of this study is basically a product of "cut and paste" editorialization rather than an original research product. The documents and/or publications from which the information was extracted are:

United States Armed Forces Institute, <u>General Information Bulletin</u> (Madison: USAFI, 1970), pp. 1-26.

United States Armed Forces Institute, <u>The United States Armed Forces Institute</u> (Madison: USAFI, 1970), pp. 1-23 (mimeographed).

United States Armed Forces Institute, <u>Catalog--16th Edition</u> (Madison: USAFI, 1972), pp. 3-19.

APPENDIX F

EDUCATION, HEALTH, AND DEVELOPMENT CORPS:

THE USE OF THE MILITARY FOR NATIONAL

DEVELOPMENT IN IRAN

By

Hooshang Iravani

Population and Conditions of Iran

About 62% of the populations live in rural areas in about 5,000 villages. Rural per capita income is estimated at $50 per year. Conditions of living are poor and there is very little opportunity for basic education.

Mr. Brammer says:

In spite of modest land reform efforts the average villager lives like a medieval serf. His land, including his humble mud hut is owned by an absentee landlord. The tenant farmer is also at the mercy of the water distributors and the money lenders whose exhorbitant rates keep him deep in debt. His family lives in insecure and unhealthy conditions.[1]

Mr. Gillett describes Torkmasraye village as follows:

Of the 140 inhabitants most have a few sheep or goats so that the village flock numbers 4,000 and the villagers take turns at the sheepherding. It is the relatively wealthy who have donkeys or cattle, and the lack of oxen is a severe difficulty for poorer men when the wheat fields have to be ploughed.[2]

The landlord class generally resists schools because they see education and development as a threat to their system. In addition to overcoming culture-lag problems, Iranian educators have to fight serious traditional bureaucratic customs. While there are numerous government officials who are honest, conscientious and efficient there is a tradition of almost unbelievable corruption, nepotism, malaise, and inefficiency which robs educational programs of their vitality.[3]

Twenty-Year Plan

In 1962, a twenty-year plan for conquering illiteracy was developed with the assistance of the United Nations and United States education specialists.

The twenty-year plan design provides for free and compulsory education for all children in the 6 to 12 year age group; every village of more than 1000 inhabitants would have by 1968 its own primary

school offering a six-year study program, and by 1973 villages of
over 500 inhabitants would have schools, and by 1983 even the smallest
communities would have them. This means that the number of children
in school would rise from 1,719,000 in 1963 to around 4,870,000 in
1983.[4]

With the resignation of the Amini government in 1962, Dr.
Khanfari became Minister of Education and literacy corps were
announced in a matter of months.[5] The twenty-year plan, even though
it had not been announced officially, had been abandoned in favor of
the formation of literacy corps.

Literacy Corps

Formation of Literacy Corps:
Military Involvement

In 1962 it was estimated that 80% of the population in Iran
were illiterate. While the cities generally had fair educational
opportunities, 65% of the 22 million people of Iran living in 45,000
villages had very little opportunity for basic education. Seventy-
six percent of the Iranian elementary teachers were living in the
cities and very few were willing to go to villages.

The army had become a massive institution consuming vast
amounts of national resources. For various reasons the governing
authorities were not willing to reduce the military effort, so it
appeared expedient for the Ministry of Education officials on
starvation budgets to tie into this vast military complex.[6]

The 45,000 villages in the country had no opportunity for
basic education, and there was a serious shortage of rural teachers.
To solve the problem of illiteracy by conventional methods would
cost three times as much. These and other factors led the Ministry
of Education to form the literacy corps.

Literacy Corps Operation
and Management

The Army Conscription Department was instructed on October 21,
1962, to draw up plans for securing draftees in excess of those

needed for military service. These draftees if chosen to participate in the literacy corps would have four months' training, of which 244 hours were limited to teacher training courses and 484 hours to military training. For the remaining 14 months of military service, draftees would be sent to the villages to teach.

Literacy corps is a cooperative effort between the Military and the Ministries of Education, Agriculture, Health, Justice, Gendarmerie, and Economic plan organization.

The corpsman is given a rank of sergeant with opportunities to advance through three grades during his 14 months of service as a teacher. He is supervised by a committee of various inspectors in his political district and by a representative of the Ministry of Education.

Each corpsman is paid $50 a month, and when the 18 months are over he can stay as a permanent teacher in the village if he is willing to do so after undergoing an additional training of four months.

Financing

The chief responsibility for the financing of the training and activities of the corps lies with the Ministries of War and Education, the former for the initial training period and the latter for the remaining period of service during which the corpsmen are engaged in work in the villages.[8]

The Army provides training facilities, some of the training, personnel, military supervision, and logistics while the Ministry of Education provides the educational leadership and funds from National Development monies realized from oil revenues.[9]

Local financing is required too; corpsmen are sent only to villages which have requested their services and can afford to provide lodging and at least one class-room.

Training

The program is pragmatic in nature; classes are held to fit the convenience of rural communities. They are held in any available space--

Mosques, village houses, or in the open air. The curriculum is designed not only to teach reading, writing and arithmetic but to relate education to immediate environment.[10]

Corpsmen receive during the initial four months of training a maximum of 708 hours. The actual teacher training is limited to 224 hours. They are expected to behave as multi-purpose technical assistance workers for the villages with priority given to basic education.

Corpsmen receive some practical training in community development, jurisprudence, and recreational leadership, since their duties go beyond the class room walls. These duties encompass the educational functions of teaching children from 6 to 12 as well as teaching their parents in adult education classes, organizing village libraries, forming recreational programs, and organizing boy scout troops. Depending on skills and training the corpsmen assist with first aid, sanitation, water supply development, building roads and schools.

Class periods are not rigid, but are arranged when most children can attend; schools are structured to be coeducational, and the pupils study two books, aimed at bringing them up to a level equivalent to second grade.

Each group of 20 village schools is supervised by an inspector who is a graduate of Education College with at least five years experience in elementary school supervision. Agricultural extension agents, health agents, and cooperative experts also visit the villages at regular intervals to advise the corpsmen.[12]

Six groups of corpsmen have been recruited so far. Since the formation of the corps 18,333 young men have served throughout the country. More than 5,700 corpsmen have volunteered to stay on as regular teachers. The present target of 10,000 recruits per year is to be increased to 15,000 recruits per year.[13]

The Health, Reconstruction
and Development Corps

The health corps and the reconstruction and development
corps was developed from the general concept of the literacy corps.
The aim has been to respond to the rural needs in the fields of
public health and development as the literacy corps was expected to
do in the field of education.

The Health Corps

The first group of health corpsmen was called up in September,
1964. At present there are 500 medical units at work in the villages,
including physicians, dentists, laboratory staff, health education
units, and sanitary assistants. Many of the units are mobile; the
corpsmen carry out extensive vaccinations against small-pox, diphtheria,
whooping cough, and tetanus. In addition health corpsmen are also
responsible, in conjunction with the engineering department of the
Ministry of Health, for other important tasks such as drilling wells,
installation of hand pumps, checking the hygiene of "ganats" and
springs, converting old-fashioned communal baths into a system of
individual showers, laying water pipes in the villages, and other
matters related to them.[14]

Ministry of Health statistics show that in the two first years
of their work, more than four million patients were treated at clinics
run by the health corps and almost four million vaccinations were
given. Corps instructors have given 17,000 lectures to village
audiences and have shown 2,400 documentary films on subjects connected
with hygiene and public health. With the help of villagers they also
dug or made safe for drinking 4,200 wells and 1,900 springs and
ganats, built or repaired 190 clinics, built or converted in
accordance with modern sanitary principles 1,000 public baths and laid
water pipes in 124 villages.[16]

The Reconstruction and
Development Corps

A total of some 2000 members of the reconstruction and
development corps have worked or are working in the villages. One
of the tasks assigned has been to complete a questionnaire for each
village, covering such matters as its natural features, its economy,
educational facilities, and the state of its agriculture. Every
member of the reconstruction and development corps is required during
the period of his service in the region, to conduct training
programs for the villagers in agriculture and stock breeding and
to raise the general level of knowledge of the farmers and their
families.[16] Field plots are usually used as a model to show
farmers how to use new available methods, techniques, mechanized
farming and irrigation methods.

Every corpsman must establish at least one club consisting
of 15 to 25 young farmers and train them by carrying out selected
small-scale agricultural, social, and community projects.[17]

Girls

One of the objectives of the literacy corps has been to
provide coeducational basic education for the villagers, but there
usually is a resistance to coeducational settings in some villages
and this resistance has caused a serious problem for education of the
village girls.

In the cities 42% of children in schools are girls, while
less than 12% attend school in rural areas. The reasons for this
limited attendance in rural areas include economic problems, teacher
shortages, and resistance to the idea of coeducational settings.[18]

In 1968 it was decided to assign a few young women selected
by lottery to the literacy corps. These young women have the same
military and pedagogical training as literacy corpsmen and provide
their own uniforms. In May, 1969, there were some 2000 women in
the service.[19]

<u>Evaluation Corpsmen Talk About</u>
<u>Their Experiences</u>

A young corpsman has described the attitude of the villagers toward himself in the following way:

> When I arrived in the village of Ghorgh Agha, people first thought I was a gendarme, but when I explained that I had come to teach their children, they expressed great enthusiasm. I was given living accommodation, the people raised funds to repair the school building and make chairs and desks. They wanted to stop my departure when I was leaving for Tehran.[20]

Mr. Abbas Samar-Akbar holds a class in the morning for 29 children and another in the afternoon for 32 adults in the village of Heruze Sufna. At his suggestion the village council has organized a small cooperative which now has 200 members.[21]

Mr. Asmoun, with the help of a tiny governmental grant and the active support of all the villagers, was successful in building a one-room school. He observed that people wanted to read so as not to be called illiterate or to get better work rather than because they wanted to read useful or entertaining books. This is not surprising if we consider the fact that there are no books in such a village and the main incentive to read is therefore lacking.[22]

<u>Observation by Foreign Experts</u>

Mr. Brammer and Mr. Harris present a balanced picture of the positive and negative aspects of the program.

<div align="center">Conclusions</div>

The literacy, health, and reconstruction and development corps are considered to be "crash" programs. The general concept is perceived as being a gainful approach for education and development of rural communities at a lower cost than conventional methods. Even though there are positive points, there are also limitations in its operation, quality, and the effectiveness of the corps. The approach of the corps to rural education and development is pragmatic in nature, but how much a high school graduate with no skills, no

experience, and little teacher training can contribute to education and development of a rural community, raises a serious question.

Mr. Brammer indicates that:

1. The program has the support of the Iranian people.

2. Generally the corpsmen are greeted with enthusiasm because the village must request him in the first place and agree to build a one-room school.

3. Much of the corpsman teaching is by example rather than through formal education.

4. The educational corps is viewed as a national unifying force teaching Persian as the official language.

5. The nation gains by having corpsmen engaged in meaningful, useful work.

6. The Education Corps is proving to be a successful recruiting device for village teachers. In one survey 97% of the corpsmen indicated their desire to stay in the same village as a teacher after Army service.

The major criticisms of the program are: (1) the "crash" nature of the program; (2) the tendency of the literacy corps to replace the permanent educational programs; and (3) the literacy corps program produces basically educated but unemployable youths.

Mr. Harris indicates that:

1. Training is inadequate.

2. Planning for in-service training of corpsmen does not exist.

3. These inadequately trained high school graduates are being promised full teacher status at the end of 14 months of teaching if they elect to continue as teachers.

4. A two-year program is all being projected for any given group of village children without plans for capitalizing on these initial efforts to develop fully functioning elementary school that have been clearly outlined.

5. There is no access to books, magazines, or newspapers.

6. Literacy corps have not been provided with adequate office staff.

7. School facilities in villages will generally be entirely unavailable.

8. It is inadequately financed.

NOTES

1. L. M. Brammer, "Iran's Educational Revolution: Military Style," Comparative Education Review, October, 1966, pp. 493-498.

2. N. Gilletts, "Village School in Iran," Times Educational Supplement, March 12, 1965, pp. 744-745.

3. L. M. Brammer, op. cit.

4. B. M. Harris, "Literacy Corps Iran's Gamble to Conquer Illiteracy," International Review of Education, November 4, 1964, p. 430.

5. Brammer, op. cit.

6. Ibid.

7. Ibid.

8. R. Blandy and M. Nashat, "The Education Corps in Iran," International Labor Review, May, 1966, pp. 521-529.

9. Brammer, op. cit.

10. Blandy and Nashat, op. cit.

11. Brammer, op. cit.

12. Blandy and Hashat, op. cit.

13. Ibid.

14. Ibid.

15. Ibid.

16. Ibid.

17. Ibid.

18. Brammer, op. cit.

19. Pahlavi, op. cit.

20. Blandy and Nashat, op. cit.

21. Sita Bella, "Iran's Education Corps and Illiteracy," School and Society, March 6, 1965, pp. 156-158.

22. Gillet, op. cit.

23. Brammer, op. cit.

24. Harris, op. cit.