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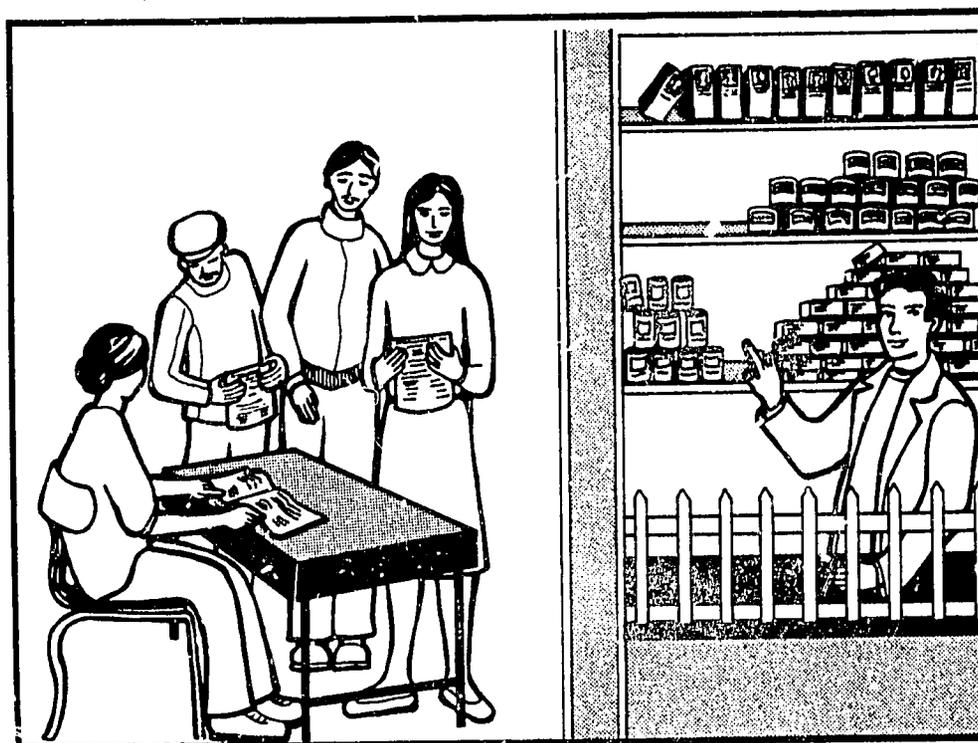
LITERACY AT WORK:

Linking Literacy to Business Management Skills

**Literacy-Oriented Functional
Education Project**

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**Agency for International
Development**

**Creative Associates
Washington, D.C.**

LITERACY AT WORK:

Linking Literacy to Business Management Skills

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PREFACE

Literacy at Work: Linking Literacy to Business Management Skills is a product of the Literacy-Oriented Functional Education (LOFE) Project, an AID-funded research activity. The LOFE Project (DSPE-C-0045) was a three-year activity which examined how economic improvement serves as an incentive for adults and out-of-school youth to achieve new levels of literacy through participation in practical skills training programs.

During the first phase of the project, a preliminary draft of this document was prepared and circulated widely. In the review, contributors analyzed existing information on how economic incentives have been associated with literacy motivation. The knowledge base provided by the review was used during the second phase of the project when Creative Associates designed and implemented two field research activities in collaboration with LDC skills training projects.

This revised document, which includes an expanded section on field research activities, is organized in seven chapters. Chapter I, "Linking Literacy to Business Management Skills: Field Experiences from Ecuador and Tunisia," reports on the design, implementation and evaluation of two project activities undertaken as part of the LOFE Project. The chapter concludes with a summary of research findings.

Chapter II, "Economic Arguments for Literacy," presents a set of positions which policy planners have argued as the economic justifications for investment in basic education. In those discussions, basic education includes various levels of literacy and numeracy.

In Chapter III, "A Framework for Assessing the Economic Value of Literacy to Individuals," an analysis is offered of the economic incentives and disincentives from the perspective of individual participants. The chapter provides a working definition of the value of literacy skills which takes account of 1) the nature of the economic result, 2) the tasks through which the results may be obtained, and 3) the ways in which the individual perceives the available economic opportunities. This chapter is of particular interest to those who wish to consider economic incentives from the individual's perspective and to plan for the provision of basic education in a specific economic setting.

Chapter IV, "Environmental Factors Motivating Literacy," discusses a range of societal and linguistic factors which are thought to influence the level of literacy skills needed to function within a community and which provides a supportive environment for learning. It is suggested that the more literacy and numeracy are used to perform daily tasks, the greater the motivation will be to obtain literacy skills.

In Chapter V, "Perception: Personal Values, Self-Awareness and Occupational Concepts Which Influence the Learner's Acquisition of Literacy," the learner's self-perception is examined in relationship to economic opportunities and the literacy/numeracy skills he/she must acquire in order to participate in the opportunities. Several hypotheses are developed from the observations that 1) perception is a major variable in the learner's motivation to acquire new levels of literacy and numeracy skills, and 2) that a refined perception can be facilitated during literacy/numeracy instruction. Personal values, self-awareness and occupational concepts are analyzed to

determine how they influence the learner's striving to acquire literacy/ numeracy skills.

The effect which the presence of a literacy instruction program has on an individual's motivation to acquire new levels of literacy is examined in Chapter VI, "The Instructional Program and the Learner's Occupational Perception." While the presence of the program is considered as a variable, it is recognized that the quality of the program can influence the learner's continued participation in the program. Three aspects of literacy instruction programs, program content, instructional pedagogy and materials and internal program monitoring, are analyzed to determine which methods or approaches can be considered "best" in a program which combines literacy and vocational skills instruction.

Chapter VII, "Conclusions and Recommendations" provides readers with a set of recommendations and action alternatives based on the research reported on in Chapter I and the theoretical background of the LOFE Project as discussed in Chapters II through VI.

The bibliography which is included lists those documents which constituted the core of literature used by chapter authors and project staff during the project. Selected references considered most relevant to the positions taken by individual contributors to the review are noted following each chapter.

Finally, Creative Associates would like to acknowledge those people who contributed to the development of this report: F. J. Method, who wrote Chapters II and III; Bonnie J. Cain who wrote Chapters V and VI; and James Hoxeng, ST/ED, AID/Washington for his support throughout the project.

CHAPTER ONE

LINKING LITERACY TO BUSINESS MANAGEMENT

SKILLS: FIELD EXPERIENCES IN ECUADOR AND TUNISIA

Mahmoud Ben Zaouri sat in quiet anxiety waiting for the training session to begin. He recognized a face or two, exchanged polite greetings and lit up another cigarette. His mind was on the store and his twelve-year old son whom he had left in charge for the first time. Mahmoud worked hard to keep his six by ten foot corner grocery open. Was it worth all the risks?

He had left Beja, in central Tunisia, and migrated to Tunis when he was 17. Three years of schooling and four years of work in his uncle's grocery were training enough to help him find jobs. Now, twenty years later, Mahmoud realized that he had gone as far as he could without major outside assistance.

Loans were available. But, what one had to do to get a loan was beyond his means: he had no registration papers for his business, he had never paid any social security, he kept no accounting records nor did he have the money to pay someone else to keep the records for him. Government regulations for small businessowners were beyond his understanding. Perhaps it would be best to remain the marginal shopkeeper that he was and deal only with survival issues.

• • • • •

Orfelía Valladares and her neighbors knew that they had the time to make their poultry raising co-operative a success. But, they had never run a business before. Raising chickens at home had not been so complicated. It hadn't involved finding feed suppliers who would deliver the ground grain or making contacts with egg retailers in Quito for the eventual sale of the first products of their co-operative effort. And, although they were neighbors, they had never worked together with monetary gains as their major goal.

The shed had gone up quickly and each member of the co-operative was pleased with the communal effort at building the shed for the baby chicks. But when the chicks arrived from the hatchery, Orfelía and her friends found themselves with multiple needs: obtaining information on raising the chicks, marketing their produce and managing their co-operative.

Introduction

Business management techniques for rural co-operative members in the mountains of central Ecuador and basic accounting principles and inventory management for small businessowners in the slums of South Tunis: what do the two activities have in common? Both projects reflect the importance placed on literacy skills when their economic value is clear to those engaged in entrepreneurial activities. In Ecuador and Tunisia, informal sector producers and entrepreneurs have learned that literacy skills can enable them to apply newly learned business-related information to the daily management of their immediate economic undertakings.

The values of literacy are many, just as the levels of literacy required for specific economic activities are diverse. For many Third World entrepreneurs, whose businesses are often marginal in nature, acquisition of literacy skills and their application to immediate economic activities can offer the difference between continued marginal subsistence and the ability to move into more viable and sustained economic situations. In many instances, it is literally the transition from oral transactions, from keeping records mentally, from depending on second and third parties for assistance with business transactions, to putting pencil to paper and working for oneself.

Subsistence producers and economically marginal workers have little leeway for risk taking, change or innovation--each a frequently cited characteristic of successful entrepreneurial types. Their human resources, time and money are often limited. They have only marginal access to information as well as to credit and technical assistance. By enhancing the ability

of individual entrepreneurs to identify options, to assess risks, to reduce those risks and acquire business-related information or vital technical assistance, literacy programs can and do become more responsive to the immediate, and indeed, the expressed needs of individuals and production groups who constitute the bulk of the informal sector in Third World economies. The Literacy-Oriented Functional Education (LOFE) Project.

In the LOFE Project, participants were at the same time object and subject of the educational activity. Training focused on enhancement of the learner's self-concept; on analysis of immediate economic opportunities; on identification of the levels of literacy required for participation in the immediate economic opportunities under study; and on the development of increased initiative, participation and use of both individual and collective resources in problem solving situations.

LOFE Project experiences in Ecuador and Tunisia show that the economic value which entrepreneurs accord to literacy skills is dependent upon training which makes opportunities available for practicing those skills. Through educational exercises designed to examine the literacy requirements of specific economic activities, LOFE participants not only became aware that there was a need for specific literacy skills in a given economic activity but also established the opportunity context ahead of time for using those skills.

Entrepreneurs in the two projects saw economic value in literacy skills when training exercises helped them identify instances where the immediate work environment provided economic rewards to individuals with literacy skills. They spent time talking with community members involved in economic activities similar to their own. Participants quizzed their peers on how they had found

their literacy skills useful in their work, on what problems they had encountered in applying literacy skills to their work, and on what additional literacy skills and information they then needed.

The literacy tool which evolved through the two experiences is one which the learner defined, one for which the learner identified an opportunity context, one which the learner helped shape to meet his or her specific needs, and one which is a problem solving tool that can be used in dealing with daily, weekly and monthly entrepreneurial issues.

As mentioned in the Preface, the LOFE Project involved a three phase approach to contract tasks. In Phase One, a preliminary version of Chapters Two through Six was prepared. Existing materials and documentation on the definition given to economic incentives in specific cultures, on environmental factors influencing individual motivation for literacy and on appropriate adult education training strategies were gathered and synthesized. Discussions with literacy practitioners in Africa, Asia, Latin America, Europe and the United States helped to further focus the review and refine hypotheses for testing in two LDC settings.

The second phase of the LOFE Project was designed to test research hypotheses in field settings, i.e., LDC practical skills training programs. The central research hypothesis was as follows:

A participatory educational model which emphasizes the individual's perception of existing economic opportunities and the requisite literacy skills for improving those economic opportunities will influence an individual's ability and motivation to acquire necessary new levels of literacy.

In addition, two secondary hypotheses were developed for field testing.

- An individual's perception of economic opportunities in the immediate environment will influence his/her motivation to acquire new levels of literacy related to those economic opportunities.
- An individual's perception of the economic and social value ascribed to literacy by a society will influence his/her motivation to acquire new levels of literacy.

Through field research activities, Creative Associates and its LDC subcontractors studied the relationships among four factors: a) an individual's perception of economic opportunities; b) the social and economic value ascribed to literacy by a society; c) a participatory educational intervention designed to impact on learner motivation to acquire new levels of literacy related to economic opportunities in the immediate environment; and d) new levels of literacy resulting from participation in the training programs.

Four research questions guided the study. They were:

1. How does an individual in a skills training program perceive economic incentives related to the skills training he/she is receiving?
2. How does the economic and social value ascribed to literacy by a society (individuals, institutions, organizations and government) influence an individual's motivation to acquire new levels of literacy?
3. How does the perception of an economic opportunity motivate an individual to acquire new levels of literacy?
4. What influence does training which is participatory have on an individual's motivation to acquire new levels of literacy?

The action research approach, the methods and the instruments used and the training of LDC subcontractor staff are discussed at greater length later in this chapter.

Organization of the Chapter

This chapter contains five additional sections. Section II describes site selection criteria, presents data on the socio-economic contexts of the two sites and includes information on the characteristics of project clientele. Section III discusses the action research approach employed in the two field sites with attention given to adaptation of the research design to local realities and specific sub-contractor needs. Section IV focuses on the development of training materials and training design issues. Implementation of field site activities is discussed in Section V with a preliminary review of the four research questions. Lastly, Section VI discusses findings from the two sites and presents an orientation to the subsequent chapters of this document.

The Two Sites

Two field sites provided a total of 16 months of collective training and research on LOFE Project hypotheses. Through highly participatory and collaborative work arrangements with two LDC subcontractors, the Fundación Ecuatoriana de Desarrollo (Quito, Ecuador) and the Mellassine Integrated Development Project (Tunis, Tunisia), Creative Associates assisted the two institutions with:

- evolving training designs and effective training methodologies for use in practical skills training programs for adults;
- developing literacy-oriented training materials in co-operative education and management, accounting for small businesses and inventory management for small enterprises;
- elaborating formative evaluation methods and their incorporation into practical skills training programs;

- training of trainers responsible for the delivery of the technical and literacy components of practical skills programs; and
- developing and refining of research approaches for judging the effectiveness of literacy-oriented training materials, for evaluating trainer effectiveness and for overall program assessment.

In Ecuador, work with the Fundación Ecuatoriana de Desarrollo (FED) centered on the development of literacy-oriented training materials in co-operative education and management of co-operatives. The staff of the Fundación developed training materials with the active participation of rural Ecuadorians. Together, they conducted a detailed analysis of selected aspects of the management of targeted co-operatives and identified the necessary literacy skills for optimal functioning of the business. Materials and educational activities were then developed in direct response to the literacy needs of the immediate economic activity. In all, five workshops were held for rural Ecuadorians during Creative Associates' contract with FED. Prior to beginning field work, two training workshops, one on project evaluation and another for training in materials development and research techniques, were conducted for FED personnel by Creative Associates.

In Tunisia, Creative Associates' work with the Municipality of Tunis Mellassine Integrated Development Project focused on the development of literacy-oriented practical skills training materials for owners of small scale businesses. The training materials, which were developed through the participatory process first tested in Ecuador and modified by trainers in response to Tunisian realities, dealt with accounting for small businesses and inventory management for small scale industries such as carpenters, blacksmiths and plumbers. As preparation for field work activities, Mellassine Project

staff participated in workshops which included discussion of participatory adult and nonformal education methodologies, materials development, development of formative evaluation techniques and refinement of research methodologies. Training materials developed in these workshops were tested with two groups of small businessowners and were later used in three additional training workshops under the Creative Associates project.

Project Selection Criteria

With an interest in replicability of both research and training components of LOFE Project activities, a number of criteria generally shared by LDC practical skills training programs were used by Creative Associates for project selection. They included:

- involvement in practical skills training programs for adults or out-of-school youth;
- existence of training materials which could be adapted in response to specific research concerns;
- use of the official language of the country in skills training programs;
- program participants drawn from the active work force age range, including both sexes and having basic literacy skills; and
- willingness of project staff to accommodate necessary interruptions which collaboration would bring.

In addition, AID-funded programs were given preference. And, as the work involved research, a major concern was that the organization selected should possess demonstrated evaluation and research capabilities or a willingness to have its staff trained in those areas.

Project selection visits were exercises in flexibility. Reformulation of selection criteria was necessary. Discussions of strategies for applying the research design to local realities led to refinements of the central re-

search hypothesis to accommodate specific program focus. And, there was concern about the appropriateness of the proposed research in light of existing LDC project realities. For example, the skills level criterion had originally been stated to include illiterate adults in the training programs under consideration. Visits to prospective sites in Ecuador and Tunisia and discussions with LDC project staff led to a refinement of the criterion to that listed above. Staff of those skills training projects felt that little could be achieved in the short time originally allotted for the field sites (six months) if efforts were concentrated on people who were completely illiterate. Ecuadorian and Tunisian project staff advocated strongly that the contractor examine the potential of working with adults who already possessed low level literacy skills. Rather than starting at the point of letter and word recognition, practitioners felt it necessary to begin with individuals already past the basic literacy threshold.

The Ecuador Site: From November, 1980 through June, 1981 the Fundación Ecuatoriana de Desarrollo (FED) designed and completed training and research activities for the LOFE Project. Five training workshops were conducted with four workshops taking place in the northwest of the country, in Pichincha Province. The fifth workshop was held in Chimborazo Province, in the central part of the country.

FED's programs to date have been oriented toward the vocational, educational and organizational needs of the 700 members of the Northwest Co-operative for Community Development in Pichincha Province. Past offerings have been a mixture of specific vocational skills instruction, agricultural

skills application through demonstration and training in new agricultural technologies.

The northwestern zone of Pichincha Province is known as an area of the country which was recently settled (1960's) by individuals native to other regions of the country or other areas of Pichincha. The Chimborazo training took place in an area long settled and farmed by an Indian group, the Shuars. Both areas are agricultural in orientation, with the average landholding being of two hectares or less.

All participants in the workshops were minifundistas, small landholders, who face multiple problems: small amount of land dedicated to agricultural activity, distance from markets, poor quality of the soil, climate, lack of irrigation and out-moded technology. For minifundistas, production and marketing co-operatives are a solid way to overcome some of the disadvantages of their economic situation. Competition with organized agribusiness exists and resources available to small landholders are scarce. For the small farmer, getting organized and gaining access to resources offer two approaches to greater control over agricultural production factors and costs.

Four of the training activities had their base at Finca Lourdes, a farm located in Santa Elena, Pichincha, where FED maintains its training center. Two of the workshops were residential (at Finca Lourdes) while two involved daily transportation of trainees to the center. Finca Lourdes is the headquarters for the ten year old community development co-operative which works closely with FED on a variety of training and economic activities.

The five training activities focused on accounting and business management skills, as well as specific technical content for a range of co-operative associations: egg production, beef raising and agricultural production (cheese, milk products and potatoes). Each workshop is discussed in greater detail in Section V, Implementation.

The Tunisia Site: LOFE Project activities in Tunisia were carried out by the Small Business Loan and Advice Unit of the Mellassine Integrated Development Project. Begun in 1980, the USAID-funded Mellassine Project provides for the general physical upgrading of the Mellassine slum area of South Tunis and offers socio-economic services to area residents. The Small Business Loan and Advice Unit not only provides access to credit for small businessowners in the area but also provides technical assistance and business advice.

Training activities of the Small Business Loan and Advice Unit include short workshops on accounting, business finance, inventory management, business math and business literacy. In addition, specific technical assistance is offered on problems peculiar to small businesses. On-site business advice and consultation, assistance with loan requests and applications and the preparation of training materials for use with small enterprise owners round out the Unit's training offerings.

The Unit provides valuable liaison services between Mellassine entrepreneurs and state run and private organizations. In addition, the team, who are all Municipality employees, facilitates entrepreneur access to the services of experts.

Research is a basic focus of the team's activities, as the needs of small enterprises in the Mellassine area can only be learned through extensive study. Since 1980, the team has conducted a series of mini-research activities on the development and functioning of small businesses, the research effort undertaken in collaboration with Creative Associates being the most recent.

Advice services are geared to a clientele who number around 400, many of whom are illiterate or have low levels of basic literacy skills. Arabic is used for all business transactions. For the most part, enterprises in the slum are marginal family concerns with low levels of reported income. Few of the businessowners have any contact with financial institutions or hold registration and tax papers on their enterprises. In the past, area businessowners have shown little interest in training.

Five training activities were offered for Mellassine businessowners during the period of time under consideration. All were held at the project's training facility which is centrally located in the slum redevelopment area. Training content focused on accounting for small businesses and inventory management for small industries.

Research Methodology

The research design was of a pre- and post-test format to allow for measurement of the impact of the educational intervention as well as provide an assessment of participant attitudes and motivations before and after each training program. An action research orientation was chosen to allow for maximum trainer and learner involvement in carrying out various research functions. Such an approach, it was felt, would not only provide the

contractor with the data it needed on motivation and appropriate materials and methods, but also serve as the basis for introducing and internalizing the concept of formative evaluation and participatory training methods into each subcontractor's permanent training design.

Several action research principles guided the collaborating organizations in their planning. Included among those principles were:

- research should be undertaken by local researchers and literacy/vocational skills specialists only after its purposes and technical design are understood by all researchers involved;
- research should respond to the priorities and interests of local researchers and policy planners and should not jeopardize the program or the personal interests of local officials and researchers;
- research efforts should not disrupt organizational goals; specifically, any use of control groups should not require suspension or delay of any planned interventions with those groups;
- research activities should be responsive to learner needs and should be integrated into ongoing programs.

Research operations in both sites involved:

- Collection of Baseline Data: Designed to provide social and economic context data, the baseline survey was completed by sub-contractor staff prior to the inception of training activities. Data collected on prospective program participants were analyzed and used in the preparation and adaptation of training materials.
- Participant Entry Assessment: Entry level data on participants' existing literacy skills, technical skills and motivations for attending skills programs were assessed through two separate operations:
 - a literacy pre-test; and
 - an entry level questionnaire
- Participant Exit Assessment: End-of-program data on increases in specific technical literacy skills, increased awareness of the literacy requirements of immediate economic opportunities and changes in

participants' perceptions of the uses of those literacy skills in their current economic activities were gathered through three research operations:

- a literacy post-test;
- an exit level questionnaire administered individually to each participant; and
- a follow-up questionnaire administered two to four weeks after training.

In both Ecuador and Tunisia, research operations were integral parts of the training design, thus reinforcing the action research orientation in the sites. Baseline data provided valuable information for the materials development process and provided trainers with close estimates on levels of literacy skills. Entry level questionnaires, administered during the first workshop session, provided data to focus subsequent content offerings in other sessions. Participants' abilities to respond, both orally and in writing, were used to gauge the validity of self-reported literacy levels as well as participants' general level of knowledge about the specific content to be presented in the workshop.

The literacy pre-test results, also gathered in the first workshop session, were invaluable to trainers in their attempts to modify and adapt the level of their presentations. The pre-tests also helped trainers gauge participants' "technical literacy" or "business literacy" levels and modify the content of training presentations accordingly.

Both the exit level questionnaire and the literacy post-test were used to evaluate participant achievement and effectiveness of training. At the end of each training workshop these two research operations provided formative evaluation data for the on-going revision of training materials and methods. Qualitative data was collected through follow-up interviews with participants,

from trainers' notes and diaries, through observation sheets and checklists and through tape recordings of specific training discussions and exercises.

In both sites, training of researchers was necessary. This training included not only an orientation toward action research but also assistance with data collection and data analysis techniques. In both sites considerable time was spent on adapting the proposed research design to local realities and individual project priorities, thus providing sub-contracting organizations with data for planning and evaluation activities. This latter activity was time well invested, as adaptation to the immediate concerns of subcontracting organizations had implications for the issue of ultimate ownership of the activity.

Lessons derived from the Ecuador experience were invaluable in assuring greater integration of research activities into the training design used in Tunisia. The Tunisian subcontractor was also at a different stage in the development of its training programs and saw the immediate benefits to be derived from the incorporation of research/evaluation activities into a permanent training design.

Developing Training Materials and Training of Trainers

Training Materials

The words relevant and participatory would best characterize the training materials used with co-operative members and small businessowners participating in the Ecuador and Tunisia sites. A preliminary review of existing literacy materials in each site left Creative Associates and subcontractor staff with a firm conviction that LOFE Project clientele would need

situation specific training materials and activities rather than those of a more general nature. Existing materials were either written at a level too advanced for project clientele, were too technical for the problems at hand, or were judged to be non-responsive to the problems under discussion.

For that reason, training materials were geared to the active exploration of the literacy skills needed by participants in their immediate economic activities. In Ecuador, special emphasis was placed on the business management needs of members of the five co-operatives involved in the training. These needs were identified through the baseline survey and through subcontractor interaction with each group prior to the training. In Tunisia, the technical content areas for the two training modules, accounting and inventory management, were identified through one-on-one interviews with prospective participants. Each activity was developed at a literacy level commensurate with the average self-reported literacy level of program participants. Alternative forms of each exercise were developed to accommodate literacy levels lower than the identified average.

In addition, prototype materials which encouraged active participation of the co-operative members and businessowner-trainees were used in preference to more traditional, directive materials and methods. In Tunisia, photoliterature was used to introduce key concepts of each module to businessowners. Extensive use of group discussion then allowed participants to develop sufficient oral skills to facilitate the progression from oral expression to comprehension of printed training materials. At that point, attention was given to written work. Case studies and written exercises were

complemented by both cashbook worksheets and inventory forms, thus allowing for an immediate application of concepts through practice.

As few of the businessowners or co-op members involved in the Tunisian and Ecuadorian training programs had prior experience with either accounting or inventory practices, considerable emphasis was placed on the development of oral language skills related to the technical content. Only after participants exhibited an oral mastery of the accounting and inventory management concepts did trainers move on to the reading and writing exercises. Attention to this oracy-to-literacy sequence enabled trainers to introduce new vocabulary and concepts to small businessowners, thus fostering a relevant, and in this case, often new knowledge base needed for the comprehension of printed messages later in the training. In addition, the inclusion of an oracy-to-literacy sequence in the training of co-op members and small businessowners provided trainers with the opportunity to capitalize on participants' existing store of knowledge. Once that store was identified, newly identified literacy skills for improving accounting and inventory management practices could be taught.

In addition to literacy-oriented training materials, a number of group building exercises were used in the Ecuador site as all workshops were for groups engaged in a common economic activity. Four activities developed for increasing group cohesiveness, group problem solving and group decision making abilities were used in each training workshop.

Training materials, as developed and modified by the LDC subcontractors and Creative Associates, had two major objectives. They were a) to provide content and activities which permitted participant identification and study of the requisite literacy skills for their immediate economic activities;

and b) to use state-of-the-art adult learning philosophy and instructional techniques to involve learners more fully in the educational/training process.

Throughout the evolution of the training materials, Creative Associates proposed that two elements were crucial in increasing learner motivation to acquire new levels of literacy:

- an emphasis in each of the activities on learner involvement in the examination of economic opportunities; and
- the learners' exploration and identification of the specific literacy skills to participate in existing economic activities.

The suggested instructional focus thus constituted Creative Associates' understanding of what was required to aid the learner in making the connections between immediate economic opportunities and resultant gains and the levels of literacy required to participate in those opportunities.

The training activities for program participants involved in the two field sites were designed to introduce:

- formative evaluation procedures for internal monitoring of increased participant involvement, greater use of diverse teaching methods by instructors and effective introduction and implementation of learning activities by instructors;
- investigation procedures for establishing relevant instructional content through which economic opportunities and the literacy skills needed for participation in those opportunities could be identified;
- a procedure through which instructional materials could be analyzed, revised and augmented by the instructors;
- staff training in a variety of instructional techniques; and
- pre- and post-testing procedures through which immediate participant progress could be measured.

Training materials were structured around participatory instructional strategies which encouraged greater reliance on program participants as technical resource people. The learners were, at the same time, both object and subject of training activities which focused on:

- the enhancement of the learner's self-concept;
- an analysis of immediate economic opportunities;
- identification of the literacy levels required for participation in the immediate economic opportunities under study; and
- increased initiative, participation and use of individual and collective resources.

Workshop sessions were planned to give each participant the opportunity to immediately apply the technical content presented, to develop action strategies and to exercise leadership roles and behaviors. Once existing economic opportunities had been explored, learner motivation was not concentrated on production per se, but it was directed toward the acquisition of the necessary "technical" literacy skills to implement the newly presented technical content. Formative evaluation measures were closely linked with all offerings so that the training was easily adapted to the realities of each workshop group.

In each field site, the materials focused on the economic gains or savings to be realized through applying specific literacy skills to immediate economic opportunities. Training materials were structured to ensure the learners' personal involvement in the exploration of their existing economic activities and of how new levels of literacy could be of direct benefit to them in their work. Thus, learners and trainers assessed existing economic opportunities together, identified the skills needed by learners to maximize their involvement, and worked together to develop the required literacy skills.

Training of Trainers

Concurrent with the development of training materials, time was devoted to training trainers to be more responsive to learner needs. Being responsive to learner needs meant that trainers in both sites needed to:

- understand the economic and social context of the area;
- develop a realistic training design which would encourage participation;
- develop training materials with appropriate content and at an appropriate level for co-op members and small businessowners; and
- employ training and evaluation strategies which would allow for inevitable modification.

At the same time, it was felt that trainers needed to experience participatory training methods first hand. Although the staff of both sub-contracting organizations were well trained in the respective content areas, their experiences as trainers of adults were limited. For this reason, training workshops held for trainers were modeled on methods similar to those they would in turn use with co-operative members and small businessowners. Each exercise was based on trainer needs with many exercises jointly developed by trainers and the contractor. Formative evaluation exercises were a part of each training activity and were used to modify training content in response to emerging needs.

In both Ecuador and Tunisia, trainers also carried out the research, data collection and analysis, and participated in the subsequent adaptation and modification of materials and training methods. For example, trainers collected baseline data which they used to elaborate learner profiles or lists of salient participant characteristics. Once training content decisions were made, trainers used the learner profiles to generate general characteristics

of responsive training and to select appropriate materials and methods for use with project clientele. Trainers and program participants then worked together on the final training materials used in the workshops. Just as good curriculum innovation practices depend on instructional staff who are convinced of the worth of a given curriculum, the LDC subcontractors found it important that trainers view the training materials and the research as their own products with immediate benefits to be derived from their efforts.

Implementation

In this section, discussion centers on implementation activities in the Ecuador and Tunisia sites. Particular attention is given to the context and nature of the training workshops, the characteristics of participants and workshop content. The information presented is organized by site with a summary section providing a comparison of the two sites.

Ecuador

Context: From January through May, 1981, the Fundación Ecuatoriana de Desarrollo (FED) carried out LOFE Project training and research in five workshops for select rural beneficiaries of its existing programs. Each of the five workshops included approximately 60 hours of instruction scheduled around participants' other daily activities. For example, the first and third workshops were held four hours each evening over a three week period. The other three were scheduled during a one week period with training sessions in the mornings, afternoons and evenings. The 60 hour total was comprised of 20-24 hours of literacy-oriented instruction on accounting and business management

with the remainder of the time being spent on technical content areas like poultry raising and egg production, animal husbandry and agriculture (potato production).

The selection of the five groups was made on the basis of criteria described earlier in this chapter. Groups engaged in an economic activity were given preference. Basic literacy and numeracy skills were a second requisite. And, an additional criterion was an expressed group interest in participating in a training course. A description of each of the five groups follows:

Group I: Egg Production Cooperative: Established six months prior to the training workshop with assistance from FED, the co-operative was engaged in raising laying hens and had constructed a laying house prior to the workshop. The laying house as well as all other co-operative business was administered directly by the 12 members of the co-operative.

Group II: Board of Directors, Regional Community Development Co-operative: Training was for the ten member board of a 700 member co-operative, founded in 1973 as a savings and loan association for its members. Since 1977, the co-operative has received technical assistance from FED, especially in the management of Finca Lourdes, the co-op's demonstration farm in Santa Elena. Finca Lourdes, as a functioning farm, is oriented toward the production and sale of cheese and dairy products. The upgrading of dairy cattle through breeding and feeding practices and pork and guinea pig raising are activities of a smaller scale at the farm.

Group III: Cattle Raisers: The third group consisted of 18 neighbors who were involved at an individual level in cattle raising activities. Although the participants were not yet an incorporated group, they had specifically requested the training. FED concurred that the economic activity was at a level where training in accounting and management of co-operatives was appropriate, and would contribute to helping the group get organized.

Group IV: Community Association, Chimborazo Province:

This workshop was designed for 17 participants from various "districts" of one department. All participants were members of a larger association created to stimulate increased agricultural production. The group had received technical assistance from FED in the development of a credit system for members and in the management of specific cash crops.

Group V, Cattle Raisers' Association: Organizational efforts with this group of 17 farmers began in 1980 with the major objective being that of assisting the members with the upgrading of their herds. FED has collaborated with the association since the beginning of the organizational process on legal, financial and technical issues.

Characteristics of Participants: In all, 78 individuals participated in the five workshops. Of that number, 70 completed the sixty hour offerings. Specific characteristics of the participants can be summarized as follows:

1. The majority of the participants were men (81%). A notable exception was the workshop for the poultry co-operative in which half of the participants were women.
2. The majority of the participants (50) were between the ages of 15 and 35.
3. Eighty-one percent (81%) of the participants were engaged in primary occupations related to agriculture or animal husbandry. The remaining were involved in artisan or commercial activities as their primary occupation.
4. Three quarters of the participants reported that they had attended some level of primary school with other participants reporting a range of educational experiences which varied from literacy classes to vocational or technical instruction.
5. At least half of the participants had attended training workshops or courses in the past.
6. All participants were from minifundista families; all were dependent on their small parcels of land as a primary source of income.
7. All were co-operative members, either of larger regional associations or local village-level organizations.

Tunisia

Context: Between January 1 - June 20, 1982, the Loan and Advice Unit of the Mellassine Integrated Development Project conducted five training workshops for small businessowners from the Mellassine Project zone. Three workshops were offered on accounting for small businesses and two were organized on inventory management for small industries. The choice of workshop themes was based on the expressed interests of prospective participants.

Each training module was presented in six sessions of three hours each with an additional four hours scheduled over two follow-up sessions. The six initial sessions were presented at Project training facilities as was the second of the follow-up sessions. The first follow-up session took the form of an on-site business consultancy in which trainers visited individual entrepreneurs at their places of business.

Forty-five (45) participants registered for the workshops. Of this number 42 were men and 3 were women. In two workshops, both on accounting, all participants attended the entire course. In the other workshops, there was a high rate of non-completion (on the average 50%) which was due to workshop schedules conflicting with preparations for the month of fasting, Ramadan, and the decreased motivation on the part of workshop participants who had applied for, but not yet received loans from the Mellassine Project.

Characteristics of Participants: The most common profession represented was carpentry, followed by individuals engaged in small commercial occupations such as grocers, green-grocers, butchers, electricians and plumbers. Four salient characteristics of Mellassine businessowners emerged from baseline research. Those observations were substantiated by findings on program participants. They were:

Participants were the owners of small enterprises. The number of businesses in the Mellassine area is large, (estimated at over 400), most of which are relatively unstable. Entrepreneurs often shift their economic activities from one business to another. Businesses are small in nature, generally employing only the owner or members of his or her immediate family. The volume of business is small, although there is a wide range between those that do the largest volume and those with the lowest. The businesses included primarily commercial activities, handcrafts and basic services. The most common economic activity in the zone is the corner grocery shop.

Participants were marginal entrepreneurs. In general, businesses in the Mellassine zone are functioning illegally or on the margins of legality, with very few having either an operating license or a business registration. Even fewer reported that they paid social security taxes. The limited amount of credit obtained by the entrepreneurs comes from family members or friends, with repayment through fixed installments. Occasionally, credit is extended by business associates. None of the entrepreneurs interviewed had any dealings with commercial credit institutions.

Several factors contribute to this marginality:

- entrepreneurs have little or no understanding of legal and administrative standards, or of credit sources which are available to them;
- those who are aware of credit resources, do not know the necessary procedures for obtaining credit;
- those who are aware of the procedures for gaining access credit are intimidated by the bureaucracy and volume of frightening administrative paperwork; and
- finally, the characteristics of the entrepreneurs place them within a vicious cycle, since these very characteristics make them ineligible to receive credit from commercial institutions.

Participants had limited technical skills and a low level of literacy skills. Research studies estimate that 60% of the entrepreneurs in the zone are illiterate. The remaining 40% possess varying levels of formal and informal instruction, with an average of 1-3 years of primary school. For many, primary school attendance had been 10 to 20 years in the past. From the entry level questionnaire it was determined that 25 participants in the accounting workshops only 13 regularly maintained an organized accounting ledger or

record of expenditures and receipts; the others reported no accounting systems. Of those who maintained records, several employed the services of a second party to do so. Participants in the workshops on inventory management were, as a group, even less cognizant of such techniques with only two participants reporting the use of stock monitoring procedures.

In general, those entrepreneurs who did possess basic technical skills and knowledge in the areas of accounting and inventory management were aware of the value inherent in using such skills. In interviews, businessowners noted that people who employ similar techniques gain from doing so, "by succeeding in their undertakings and achieving a higher volume of business," "by being aware of their income and costs," and "by understanding their profits."

Participants needed but usually resisted technical assistance. While entrepreneurs have a significant need for technical assistance, they often exhibit a negative attitude toward participating in technical assistance offerings. Of the 68 enterprises involved in the sector sample, only 18 expressed a need for technical assistance. The reasons for this reluctance included:

- age: Older businessowners were less inclined to invest in themselves by accepting technical assistance than were younger entrepreneurs.
- time: Small businessowners already invest inordinate amounts of time in their businesses in comparison with their level of income. Many felt that they could not risk losing potential business by being absent from their businesses for training. All noted that time was the most important cost to entrepreneurs who participate in training workshops. Of 44 participants, only 4 stated they would be any place other than at work if they were not in the training sessions; and
- literacy/educational levels: Entrepreneurs felt that they needed at least a minimal level of literacy in order to take advantage of training opportunities.

Summary

Participants in both sites were engaged in existing economic activities, either on an individual basis or with a group. In each site, the participants' economic activities were marginal in nature and their enterprises were in need of technical assistance in business management and accounting as well as technical assistance specific to their individual occupation or vocation.

All participants were from the active work age group with the largest concentration of participants falling in the 19 to 30 age range. Most participants reported having been to primary school or literacy classes, with only a few reporting having attended other levels of schooling. The vast majority of participants in the two sites were men, with few women attending. In Tunisia this was due to the fact that few women owned businesses in the slum area. In Ecuador, the group economic activities which were the focus of the training were more traditionally male oriented occupations.

Each site provided five workshop settings in which LOFE research was conducted. Participation in the workshops was open and attendance was voluntary. Recruitment was handled by the subcontractors, with no special approach having been developed for use in the ten workshops under study.

Workshops in both sites had roughly the same number of hours (20-24) devoted to literacy-oriented training activities on business management and accounting. Materials used in both sites were developed by the subcontractor's training staff in collaboration with workshop participants, with content decisions and special workshop focus being decided by trainers and participants.

In both instances, training materials allowed for an active exploration of the literacy needs related to participants' immediate economic activities, immediate application of new information to real life situations, and evaluation of activities by both trainers and participants.

Findings

As noted in the introduction to this chapter, four questions guided the research efforts of the two LDC subcontractors in their examination of economic incentives as motivating factors for the acquisition of new levels of literacy. The questions were:

1. How does the economic and social value ascribed to literacy by a society (individuals, institutions, organizations and government) influence an individual's motivation to acquire new levels of literacy?
2. How does the perception of an economic opportunity motivate an individual to acquire new levels of literacy?
3. How does an individual in a skills training program perceive economic incentives related to the skills training he/she is receiving?
4. What influence does participatory training have on an individual's motivation to acquire new levels of literacy?

In this section, those questions are used to focus the discussion. A fifth question developed for study only in the Tunisian site is also presented:

5. What effect does participation in training have on trainee attitudes and skills?

Data presented in the discussion of each question are arranged by site with a summary section following. Data used in this section were collected through the research instruments described earlier in this chapter as well as from

evaluation exercises, trainers' diaries and daily observation sheets, follow-up interview notes and notes from staff briefings and debriefings. In addition, reports prepared by both subcontractors on individual workshops and final reports for each site provided a synthesis of the data collected during site activities.

Question 1: How does the economic and social value ascribed to literacy by a society (individuals, institutions and government) influence an individual's motivation to acquire new levels of literacy?

Ecuador

In the Ecuador site over 50% of the participants had attended training workshops in the past and were familiar with FED's attempts to link training and agricultural production issues. As co-operative members, the participants already had an exposure to the functioning of a co-operative. Yet, many lacked the specific business management and accounting skills which were so necessary for the optimal functioning of their immediate economic activity.

When participants were asked, in the entry level questionnaire, their reasons for attending the workshops, well over half responded that they were motivated to attend in order to get "new knowledge" related to the functioning of their co-operative. A substantial number linked "new knowledge" to increased profits and to the general improvement of the financial management of the co-operative.

In two workshops, both for members of well-run co-operatives, participants were adept at expressing the relationship between acquiring new levels of literacy and fuller participation in the existing economic activity.

They cited specific operations requiring literacy skills which they felt all members should be able to do, e.g., prepare contracts, keep cashbooks and help calculate sales prices based on actual costs plus their profit margin.

Co-operative members saw direct benefits to be derived from participation. A repeated expectation across the five workshops was that the acquisition of new information would lead to an increase in technical skills. Increased technical skills, participants said, would not only help the individual but also help the group to realize profits from their collective investments of money and time.

Some participants felt they could improve the image others had of them as individuals and as a co-operative by improving their technical and literacy skills. In one of the group dynamics exercises, several participants openly confronted a major issue they were facing; no one took them seriously as a co-operative. As the group examined ways in which to improve local opinion of the co-operative, better business management skills and "business literacy" were high on their list.

Tunisia

An attempt in the entry level questionnaire to assess participants' motivations for attending the accounting and inventory management workshops generated data which showed that economic motivations ranked high among those identified by participants for acquiring the new levels of literacy necessary to improve upon immediate economic activities. High economic value was attached to attendance with responses like "to become a better manager and increase my profits," "to improve my economic situation and my physical

surroundings" and "to access credit and other resources" being given most frequently. In addition, there were participants who thought that participation in the workshops would help them "succeed" in their enterprises while others thought that training and improved literacy skills would help them improve the image they had of themselves as businessowners as well as improve the image others had of them.

Question 2: How does the perception of an economic opportunity motivate an individual to acquire new levels of literacy?

Tunisia

Training offered to Mellassine area businessowners demonstrated that productive economic activities can foster the need for literacy skills. The discussion under Question 1 above showed that participants were economically motivated to attend training sessions, especially given the high frequency of responses like "to improve my situation and my physical surroundings" and "to have access to a loan and other resources." This tendency demonstrated that perceptions of the economic gains to be acquired served as potent motivating factors.

At the end of the training sessions, participants rated practical application exercises, e.g., cashbook and inventory sheet presentations, as the most useful of those included in the workshops. They noted that the application of those exercises to their real life situations helped them further realize the economic benefits to be derived from the training. It is interesting to note that this exit level assessment of utility and potential applicability was not substantiated by the rate of actual application observed during follow up visits with businessowners two weeks after the training

session. The few who had instituted new or modified accounting practices or who were using the inventory sheets were those already exhibiting other innovative business management behaviors.

For many participants, access to credit was perceived as the major motivating economic opportunity. During interviews with project staff businessowners learned that in order to qualify for loans they would have to demonstrate their net worth, a list of stock on hand and projected use for each loan. For many, who had neither accounting systems nor inventory procedures, the prospects of establishing such practices figured heavily in motivating participation. This was particularly noticeable in the first four workshops where attendance remained high throughout. In the fifth workshop, which was held shortly after a major confrontation between disgruntled businessowners, project staff and local elected authorities, attendance dropped dramatically when businessowners learned that it would be another two to three months before the first loans would be disbursed by the Mellassine Project. Thus, when economic payoffs for participation were seen as delayed, motivation waned.

Ecuador

Even though participants in the Ecuador workshops had high self-reported educational levels (an average of four years of schooling), many learned through participation in the workshops that their literacy skills were not sufficient for managing their co-operatives. Training exercises which focused on the economic gains or savings to be achieved through the application of specific literacy skills to specific business management tasks

resulted in quick action by several participants. In some instances, participants generated lists of skills they needed to develop or refine in order to maximize their involvement and economic productivity. For each item on the list, trainers and participants explored ways for improving the specific literacy skills in question.

In the case of the egg production co-operative, participants used the workshop to chart out immediately needed literacy skills as well as more long range skills. Building the laying house had been a simple task in comparison with arranging for the delivery of the chicks, tending them around the clock, dealing with diseases and learning how to administer medicines properly. As the members dealt with the present, which had no immediate economic pay off, they realized that once they had hens laying, they would have to deal with writing up contracts for the transportation of the eggs. Contacts would also have to be made with retail outlets in Quito, an action which would also necessitate a written contract. Through this process of exploration additional literacy skills were identified.

In one workshop conducted for an unincorporated group, an initial exercise, the literacy pre-test, startled participants. Although they knew what accounting was and that accounting procedures would be necessary once they incorporated, none could correctly identify the ledger book example used in the pre-test. Thus, acquiring the literacy and numeracy skills related to the keeping of business records became the major focus of the workshop.

In other instances participants would mention the need for specific business practices, could explain why the practice was needed and how they "thought" it could be done. It was not until practical and often simple

explanations were given and there had been time for immediate application to real life situations that participants would say, "we now know how." The practical application exercises in which theory and concepts became real through putting pencil to paper were rated as most useful among the range of training activities.

Question 3: How does an individual in a skills training program perceive economic incentives related to the skills training he or she is receiving?

Tunisia

Participants' expectations of training were assessed through an entry level questionnaire item, "What do you expect to learn from this workshop?" Most participants were interested in getting information on how to build up their capital, including how to access the necessary credit or loans for purchasing equipment or stock. Despite this one-sided interest there was considerable interest for obtaining other information: participants wanted information on accounting and business management techniques with several indicating an interest in business law, legal issues and marketing.

The expectations noted above were similar to participants' responses to an additional entry level questionnaire item, "What are your major needs for improving your business?" A detailed analysis of the questionnaires showed that although purely material needs (capital, equipment, merchandise, land and locale) were mentioned most frequently, needs related to training for better business management appeared among at least two thirds the responses of the small businessowners.

Even though there was frequent mention of the need for technical assistance and training, participants' level of knowledge about accounting and

inventory management issues was such that they generally had difficulty in specifying the content for the training they wanted or knowing what particular skills and techniques would be beneficial. This was particularly the case with participant responses to another entry level questionnaire item, "What specific information do you need on accounting (or inventory management) to make your business operation more efficient?" The most frequent response was "I don't know. It is up to you to decide." There was a large number of responses under the "other" category which were also of a vague nature; everything that relates to my work," "new ideas," "management," and "new information," among them. At the same time though, there were workshop participants who were precise about their needs: "how to measure wood and calculate the cost of a window or door," "how to figure percentages, taxes and social security payments," "how to plan for seasonal availability of stock," and "how to better manage retailing of perishable goods."

This generally observed tendency among participants to say that trainers should be the ones defining content was dealt with directly through the methodological approach taken to training and through the materials development process. Training methods involved participants in the design, implementation and evaluation of training activities. Participants examined their current economic activities to identify which specific business literacy skills could help them. Training activities were then developed to address those particular needs. In all activities, the short-term economic benefits to be derived from the training were stressed.

Despite this short-term concentrated focus on developing oral expression skills related to technical content areas, and applying new

information to concrete situations through writing and reading exercises and evaluating learning experiences, data from the exit level questionnaire indicated that participants continued to have difficulty in being precise about their learning needs. In one case, even though most of the participants indicated that they would like additional business-related assistance, only one was explicit about the type of assistance he required. He wanted help in learning how to calculate his profit margins on the products he sold in his corner grocery.

Ecuador

Group work and the development of abilities to work as a group with shared economic goals were viewed by participants as vital to the success of each of the co-operatives. For this reason, considerable attention was given to group dynamics exercises designed to create a team work atmosphere, to strengthen group cohesiveness and at the same time to offer the groups valuable information about themselves.

One such activity was the "Group History Exercise." The objective of the activity was to assist each group in identifying its antecedents, the reasons for and processes involved in its formation, and specific information needs related to the ongoing pursuit of its immediate economic activity. Through a series of small group activities, participants developed a better understanding of group processes and communications, of the role of collaboration in their common economic activity and of leadership and utilization of group resources. The exercise, which took place at the beginning of each workshop, provided participants and trainers with information which allowed

them to compare and evaluate their performance and attitudes at other points in the workshop. This was especially true for the development of planning skills and decision making approaches and the use of group resources to solve problems related to their immediate economic activity.

Over half of the participants in the five workshops indicated that the "Group History Exercise" was the most useful workshop exercise for them. They felt that the experience would have an impact on economic productivity in ways such as "Now the group can plan and work better to produce more," and "The workshop gave us an opportunity to organize ourselves better and to improve our production."

In one workshop, participants discovered that their current economic activity, raising laying hens, had two additional economic possibilities: the sale of hens after they had stopped laying and the sale of chicken manure as fertilizer. When asked if they had considered those possibilities earlier, the group response was "No, we were too involved with the present and getting the pullets to the laying stage. Now, we see where planning can take us." There were similar instances where participants expressed a new self-confidence, not only in their individual abilities but in those of the group. Thoughtful examination of their immediate economic activity led them to be less passive about training needs and more active in identifying training inputs and resources which they could access on an on-going basis. "Now we see" and "Now we know" were frequent comments.

What may appear as mild agreement or "the-nodding-of-the-head" kind of statement was translated into action in several instances. Proforma contracts were developed by members of one co-operative in anticipation of the need for

middleman services. One group used the workshop to review its books while another set up its accounting procedures, with all members reaching consensus on the delicate subject of how their money was to be managed.

Question 4: What influence does participatory training have on an individual's motivation to acquire new levels of literacy?

Ecuador

Participatory training of the type presented in the five workshops under the LOFE Project was a new phenomenon for participants. Past training courses which they had attended had been more directive in nature with content predetermined by an outside "expert." In addition, little if any emphasis had been placed on an examination of the literacy needs of their specific economic activities.

A major objective of the training was to assist groups in taking greater control of their economic activity through examination of the use of resources, decision making patterns and management of financial inputs and returns. Constraints were identified, alternatives were explored and, as a result, decision making was informed. As one cattleraiser noted, "What we are doing is of our own choice. We have examined the situation and our decision has value to it."

The participatory nature of the training in those situations appeared to contribute to both individual and group self-confidence rather than perpetuating the feeling that someone else, external to the group, was in total control. When participants were asked to evaluate the usefulness of the training experience in helping them to work together as a group with communal economic goals, nearly all felt that the training had been successful in that

respect. In addition to their "yes/no" responses, several participants added their own remarks related to a perceived increase in technical skills, business literacy, learning to work together as a group and the effect they thought the training would have on other community development issues.

Through training experiences, participants were able to identify other training needs related to their economic activities. The majority of the future needs were for additional training, particularly in relation to the management of the groups' economic activities. Three fourths of those who replied did so with a description of the desired content.

Tunisia

In examining the influence of both training methods and content on individual motivation, trainers looked at participants' perceptions of existing economic activities and their perceptions of how training could help them in taking fuller advantage of those opportunities. Two items on the entry level questionnaire provided data for this analysis.

The responses to the first item, "Do you think that businessowners who use the same accounting methods that you use are successful?", were always "yes." Only those participants who were currently using some accounting method (9 out of 26) were asked to respond. In each instance, they expressed an awareness of the relationship between accounting practices and business success. According to the respondents, businessowners who used good accounting and management practices were successful because:

- "they got things done,"
- "they knew what their income was,"
- "they kept records,"

- "they knew what their profit margin was,"
- "they had employees,"
- "they had sizeable business concerns," and
- "they managed well."

Similar responses from accounting workshop participants were elicited through Item 10 of the same questionnaire, "How do you think new information on accounting can help you improve your business?" Responses focused on:

- Planning: "helping me use my current economic situation to plan for the future" and "helping me to improve my physical surroundings";
- Management: "organizing my work better," "improving my management skills" and "arriving at desired profits"; and
- Specific skills: "learning how to calculate linear measurements," "learning how to keep a cashbook" and "developing a system for classifying and filing receipts."

The majority of participants in the inventory management workshop had no previous exposure to inventory management procedures. This lack of experience was mirrored in responses to other items on the entry level questionnaire. Of the participants who replied that inventory management procedures would help them "resolve problems related to sales" all noted that it would be of no use to them "if it were scientific."

Data on participants' expectations and their assessment of the utility of the training were also gathered through the exit level questionnaire. For the majority of the participants, the training had responded to their specific needs. Many noted that the new information presented was of direct application to their current economic activities while others were more conservative with their estimation. All participants felt that they could adequately explain the key concepts and key words used in the module. This self-report was verified in written and oral exercises which constituted the literacy post-test administered in the last training session of the week.

In a final evaluation exercise participants were asked to discuss what they had liked about the workshops and how they thought future workshops could be improved. Participants' suggestions and comments on what they had liked included: the utility of the content, the openness of the training methods, the direct application of training content to real-life situations, and their increased awareness about the literacy needs of their existing economic activities.

Question 5: What effect does participation in training have on trainee attitudes and skills?

The utility of a training workshop should not only be evaluated by trainees but also, and perhaps more objectively so, by observers and the training team. For this reason, the Tunisian sub-contractor opted for this fifth question for study and discussion. Data for this discussion were gathered from three major sources: literacy pre- and post-tests and follow-up sessions. All three provided program organizers with information on what changes took place in participant attitudes and skills levels. The issue was also a focus of the Ecuador site, but was not explicitly stated as a research question by itself. Information from the Ecuador site has been used in this section to provide a comparison to Tunisian findings.

Tunisia

A comparison of pre-test and post-test performance across the range of participants demonstrates that changes which took place can be grouped as follows:

- The level of oral language skills (oracy) in treating the key concepts in the two modules improved significantly. Participants who had confused the concepts of income, profit, receipts and net income on the pre-test were able to distinguish correctly among the terms at the time of the post-test.
- Learning to copy the cashbook format and that of the inventory sheets was quickly accomplished. Significant progress was made by most participants in acquiring the skills needed for completing the forms, especially in correctly aligning figures. If figures are improperly aligned, mathematical operations are usually incorrect. Ability to perform mathematical operations remained an area of concern throughout the workshops and needed continual attention.
- Groups were not homogeneous in either oral expression skills levels or in technical skills. Yet, through an emphasis on group activity and group discussion, all members were able to participate in workshop offerings.

Follow-up activities indicated that few participants had put their new skills into practice within a two-week period after the training ended. In most instances, small businessowners told trainers they had not had the time to do so. While others indicated that they planned to do so, a few openly admitted they had reservations about instituting changes which might result in additional costs. The limited data gathered from follow-up activities provide the following insights:

- Few participants had "radically" changed their attitudes. Those who had done so, had come to the accounting workshops with no knowledge of accounting procedures. They diligently traced their cashbooks and had been entering expenses and receipts on a daily basis since the workshop. One participant, who had a large volume of business, talked at length to trainers about how this new "practice" was helping him.
- Many participants continued to use the same accounting systems as they had employed previously. Some indicated that the module had assured them that their methods were adequate. Others noted they had made small changes or improvements in their systems as a result of their participation in the module.

- Some participants exhibited a resistance to instituting the practices suggested in the workshop. One of the five was illiterate and the other four felt that their businesses were so small that they should devote their efforts to survival.

Ecuador

Data from pre- and post-test of reading ability and comprehension of technical content (cashbook and accounting principles) showed that there was a slight increase in reading ability over the 20-24 hour literacy-oriented segment of the training. Data from trainers' diaries describe a noticeable change in participants' self-confidence when asked to read during the post-test from their performance on the pre-test. FED staff attributed this increase in reading facility to the participatory training methodologies which had contributed to increased self-confidence and the daily use of reading skills during the workshops.

Written exercises were not easy for participants in the five workshops. Sentence construction varied directly with participants' reported level of schooling, i.e., participants with secondary schooling were able to express themselves with greater clarity and precision, while these characteristics were often lacking in the written work of those who had only attended primary school or literacy classes. Overall, the written work of all participants was simple in nature, was often grammatically incorrect and contained numerous spelling mistakes.

In addition to providing an opportunity to use literacy skills (reading and writing), training activities contributed to increasing individual and group initiative in accessing information and problem solving. With this goal in mind, exercises were designed and implemented in which real

life situations were presented and discussed, with participants then proposing alternative solutions. Small group work focused on the larger group's immediate economic activity. The elaboration of written work plans and the exposition of those plans in plenary sessions provided participants with the opportunity to familiarize themselves with the vocabulary associated with their business and project administration, with planning issues related to their economic activity, and with the 'verbal savvy' so necessary to the process of many business undertakings.

Numeracy skills were a particular problem of participants in the Ecuador workshops and a weakness in the training activities. While participants were able to correctly set up cashbooks and complete them without problems, mathematical operations presented a major problem. Command of technical information and its application to real life situations was only as useful as it was mathematically correct.

Part of the success of a co-operative often depends on its ability to attract new members. Participants were asked to evaluate their ability to communicate the new technical information on accounting and business management presented during the workshop to individuals who might join their co-operative. Two thirds of the participants felt that they could do so. Although most participants felt confident about their abilities, three fourths considered it necessary to continue to seek out new information related to the management of their economic activity.

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In Summary: Participatory training of the type presented in the workshops under the LOFE Project was a new phenomenon for participants. Past training courses which they had attended had been more directive in nature with content predetermined by an outside "expert." In addition, little if any emphasis had been placed on an examination of the literacy needs of their specific economic activities.

A major objective of the training was then to assist groups and individuals in taking greater control of their economic activity through examination of the use of resources, decision making patterns and management of financial inputs and returns. Constraints were identified, alternatives were explored and, as a result, decision making on existing economic activities was informed.

Data is summarized here around the following points:

- improved technical and business literacy skills;
- motivation to participate in training and to acquire new literacy skills;
- perceived utility and applicability of training content to immediate economic activities;
- appropriate materials and training methods for integrating literacy-oriented instruction with practical skills training; and
- appropriate strategies for training trainers.

Improved Technical and Business Literacy Skills

- For adults with low level literacy skills, the acquisition of new literacy skills appears to be linked to the development of oral language skills on the technical content of the training. When attention was given to the development of oracy skills on accounting and business management issues, the progression to acquiring new reading and writing skills was facilitated.
- Performance was higher on reading, writing and numeracy tasks which involved the practical application of new vocabulary and concepts to immediate

economic activities than in those exercises which were more theoretical in nature. This was particularly true for exercises which demonstrated the immediate economic payoffs to be derived from applying the new concepts.

- Special attention must be given to the development of written numeracy skills if new vocabulary and concepts are to be applied to the improvement of existing economic activities. The application of accounting and inventory management practices in particular depend on participants correctly carrying out simple mathematical operations.
- The training experience, with its emphasis on the development of an oracy-to-literacy sequence on accounting and business management issues, appears to have contributed to a greater sense of self-confidence for participants in approaching reading and writing tasks in post-test measures.
- Those businessowners and co-operative members already exhibiting other innovative behaviors were the most receptive to and adept at acquiring new literacy skills necessary for improving their businesses.

Motivation to Participate in Training and to Acquire New Literacy Skills

- Project findings suggest that economic incentives play an important role in motivating individuals to acquire new literacy skills through participation in training activities. This was particularly true when participants saw and experienced immediate economic returns from their participation. Perceived economic incentives included not only increases in profit but also the physical expansion of one's business, diversification of inventory or scope of work and access to credit.
- Participants with past educational or training experiences were more receptive to both training content and processes. They also exhibited a greater willingness to take the risks involved in instituting change.
- Interest was greatest in those training exercises where participants could identify the immediate opportunity context for using their new literacy skills. Small businessowners are often caught up in survival issues which preclude their examination of small changes which hold the potential of significant benefits for their businesses.

- The exploration of economic activities in the immediate environment, the determination of the requisite literacy skills needed to take fuller advantage of existing economic opportunities and the analysis of group potential allowed participants an opportunity to evaluate their current capabilities as well as their future potential in both physical and material terms. The awareness of the necessary new levels of literacy related to economic activities in the immediate environment and action taken by participants (and the organization providing the training) constitutes one of the most significant achievements of the training.
- Past experiences in training programs linked to economic production issues stimulated participant motivation to attend workshops and influenced their level of involvement in the current offerings.

Perceived Utility and Applicability of Training Content to Immediate Economic Activities

- The more immediate the economic payoffs are for participation, the greater the interest in identifying and applying the literacy skills necessary for improving one's enterprise.
- Educational activities which combined an emphasis on improved production (technical content) with management of that production (literacy) were identified by participants as those which were most useful and of immediate application to their daily work. In addition, participants expressed their confidence in being able to transmit their new learnings to new group members. The capability and confidence of participants in managing and transmitting the information acquired during the workshops were clearly demonstrated during the role play exercises or post-tests in the last sessions of each workshop.
- The design of the activities included in the educational treatment appear to have contributed toward increased perception among participants of the relationships between their immediate economic activities and the need for specific types of literacy skills. Groups or individuals already engaged in the pursuit of a specific economic activity were much quicker to demonstrate their awareness of those relationships. In general, participants were able to realize, and accept that the acquisition and application of one level of

skills related to their work led to the need for additional information and skills.

Design of Appropriate Materials and Training Methods for Integrating Literacy-Oriented Instruction with Practical Skills Training

- The participatory nature of the training in both situations appeared to contribute to both individual and group self-confidence rather than perpetuating the feeling that someone else, external to the group, was in total control. When participants were asked to evaluate the usefulness of the training experience in helping them to work together as a group with communal economic goals, nearly all felt that the training had been successful in that respect.
- Participatory training strategies take time, not only in their implementation but in both trainer and participant ability to become involved in a new approach to adult learning.
- Training materials structured to encourage the active exploration of participants' immediate economic activities should be geared to the identification of the requisite literacy skills needed by small businessowners.
- Emphasis should be placed on activities which develop oral language skills related to technical content prior to moving into a literacy sequence. Attention to the oracy-to-literacy sequence allows for the introduction of new vocabulary and concepts without overburdening participants with low level literacy skills with the development of oral language and reading skills at the same time.
- Training exercises which respect and build upon participants' existing store of knowledge contribute to the development of the self-concept and self-confidence.
- Participatory training methodologies can effectively facilitate participants' involvement in formative evaluation activities, thus allowing them to measure their own progress in acquiring new literacy skills.

Appropriate Strategies for Training Trainers

- A feeling of ownership of training activities and training materials by those conducting the training is crucial to the success of the activity. By including trainers in each step of the training design and implementation process, ownership can be assured.

- Training of trainers activities should be a model of the methods trainers are to use. Participatory training methods are difficult to implement if trainers have not experienced such methods first hand.
- Trainer evaluation of training methods and activities should be a daily activity conducted in the least threatening way possible.

Data summarized above and other project related information presented in subsequent chapters is synthesized in Chapter VII, Recommendations for Planners.

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CHAPTER TWO

ECONOMIC ARGUMENTS FOR LITERACY

This chapter reviews the evolution of economic thinking over the past three decades about how literacy programs translate into economic benefits for the general society and for individual citizens. Most of the arguments presented here address general issues of public policy and social purpose, including the bases on which assistance agencies justified their investments in international literacy work. Considerable overlap between the policy positions and the typology presented here is only to distinguish the main arguments. There have been almost as many arguments, and competing program labels, as there have been programs. In only a few instances do we find a "pure" case of a national literacy campaign following a particular policy single-mindedly or rigorously. In most cases, literacy campaigns were (and are) justified on many grounds and the actual programs are rather eclectic mixtures of theoretical application, public exhortation and pragmatic use of whatever pedagogic resources and opportunities are at hand.

Introduction

There has never been much debate about the fact that literacy is an economically useful skill to possess and that the literate members of a society tend to be more prosperous. However, there has been considerable debate about the amount of public resources and leadership that should be invested in efforts to accelerate literacy training. Over the past two decades, as efforts to plan and direct economic development have become central to public policy in most countries, planners' needs to justify the investments in literacy and other forms of education have increased in importance.

This is a relatively recent emphasis in public policy. Until the 1960's, literacy work other than primary schooling was left largely to private

initiative. There was little argument for the use of public funds to provide literacy training so long as literacy was thought to benefit the individual more than the society. Beyond this small number of people, not more than a few percent of the total work force, whose roles obviously required literacy, there was not a clearly understood social purpose in making the rest of the population literate. In most countries, the numbers of literates grew more as a by-product of other education and training, particularly the expansion of primary education, than as a result of literacy programs or campaigns.

There is a prevailing argument in many countries that generalized literacy is essential to the economic well-being of the whole society and that individuals should be strongly encouraged, even forced, to become literate--through compulsory primary schooling, literacy requirements for employment and other measures.

Between these two positions, it is possible to distinguish a number of other arguments which attempt to explain both why public authorities should encourage literacy as part of economic development strategies and why individuals should value literacy as being in their own economic interest. Among these economic arguments for literacy are the following:

The Social Good Argument

Even where there is little consensus as to how literacy contributes, there is a general belief that literacy is a good thing to have. It is associated with the kind of society toward which people are striving. The desire for a more literate, better informed society is in this sense a part of the reason for economic development.

In many countries mass literacy programs were justified, at least initially, as an inexpensive response to social pressures to show some development progress. Indeed, in some of the poorer countries the effort to expand mass literacy and primary education programs became the largest and most visible activity of government.

The difficulty with the argument is that it provides little basis for establishing priorities, for determining appropriate levels of investment or for assessing the functionality and quality of the literacy provided. The result is typically a half-hearted commitment to mass literacy on a least-cost basis, and a gradual increase in demand for higher quality and more functional forms of basic education.

The "Minimum Essential" Argument

Assimilationist social policies of the colonial period continued to be reflected in basic education policies through the 1960's. A central assumption was that before individuals could participate effectively in modern sector activities, they had to acquire certain minimum skills. Though the minimum was defined differently in each country, it generally had a practical orientation, and in every case included literacy, usually in the language of the modern sector. Such education strategies and assumptions usually accompanied two-sector or dualistic economic development strategies, with the uneducated masses in the rural areas viewed as a residual labor pool from which would come (rationed by the education and training systems) the workers needed by the expanding modern economy.

Until the late 1960's the education systems of most countries were consciously oriented toward producing the workers or cadres needed by the modern sector activities at all levels. Gradually, the focus of development planning broadened from a concern with the industrial work force to include more specific concern with economic growth in rural areas. The educational emphasis shifted from providing the minimum skills needed for entry into the "modern" sector to providing the minimum skills for participation within the rural context.

Social policy in Francophone Africa, for example, emphasized basic education (éducation de base) and the enlistment into modernizing activities (encadrement) of literates as one of the essential first steps in the economic development process.¹ This emphasis was particularly strong in the post-independence period of the 1960's as a reaction against the limited citizenship and metropolitan socio-economic policies of the colonial period. Basic education was combined with an emphasis on rural development (animation rurale).

Much of the literacy work prior to the mid 1970's was based on the assumption that literacy was a minimum qualification for full economic citizenship and participation in the modern sector. Since then, the skill levels defined as minimal have been raised and expanded in most countries. Many planners and international organizations now argue that the minimum essential is whatever is required to assure participation. In other words, the minimum required is defined not as a fixed quantity or level of skills, but as the skills needed for the situation.

The "Missing Input" Arguments

The importance of literacy was assumed to be demonstrated by its absence in situations of stagnation or low productivity. This view parallels a dominant notion through at least the late 1960's that growth of almost any kind, i.e., development, was primarily a matter of adding necessary inputs to get the desired increase in outputs. Development conditions were described in terms of the presence or absence of necessary elements and the increasingly sophisticated analysis was largely a means of refining understandings of what elements were missing and what elements must be added to insure success.

The existence of an educated and literate work force had been accepted as necessary much earlier. However, it was not until the early 1960's that Bowman, Anderson and others² began to demonstrate through comparative studies that adult literacy rates of 30 to 40% were a minimum condition or threshold for economic development. The findings preceded significant international assistance to literacy programs and mass education.

The identification of a minimal level of adult literacy as one of the missing ingredients in the development puzzle coincided with other theories and strategies emphasizing minimum conditions and stages for progress (for example, W. Rostow's theory of economic stages, and C. Beeby's observation of stages of educational development)³ to create a powerful argument for massive investments to move countries to a minimum level of literacy so that economic progress could be fostered.

These arguments helped considerably in establishing some guidelines for the relative priority to be given to basic education and literacy, and for the amount of resources which could be economically justified for such efforts.

However, there was still little understanding of precisely how literacy made its economic contributions and therefore precisely what type of literacy was required in each context.

It was not until the decade of the 70's that it became generally understood that development was a much more complex and dynamic process than the input-output models implied and that it is the functions of literacy rather than the numbers of literates which must be stressed. Literacy became an ideological tool as well as economic input, and literacy practitioners increasingly agreed with Myrdal's opinion that, "Merely 'mechanical literacy' is of no significance for a country's development."⁴

The Eradication Argument

The converse side of the missing inputs strategies was the view of illiteracy as a negative condition; one which must be eliminated. Illiteracy was viewed as the most obvious manifestation or symptom of a set of behaviors, attitudes and inadequacies which accounted for social and economic inertia or traditionalist resistance to modern ideas and participation in emerging societies. It was thought that illiteracy could be treated as a social disease to be eradicated, much as smallpox might be, or poor sanitation and malnutrition.

With illiteracy being defined as the enemy or as a disease, literacy approaches took the character of "wars" and "campaigns" against illiteracy, either as part of national mass movements of a revolutionary character, or as part of internationally funded efforts to remove the obstacles to economic development.

Though negatively defined and often accompanied by confrontational attitudes toward traditional lifestyles and traditional people, these approaches at least began to link literacy efforts directly with other development and mobilization efforts and to direct attention to those functions which were retarded by the absence of literacy. The three main weaknesses with these arguments and strategic approaches were: 1) the definition of illiteracy gave few clues to what literacy could or should be; 2) there was little attempt to understand the ways in which the illiterate person thought and acted or the possibility that such people had little functional use for literacy; and 3) being that literacy work was elevated to a moral or revolutionary imperative, there was little agreement on what was a defensible cost or a sensible investment.

The Distributional Argument

By the late 1960's a number of critics were arguing that dualistic approaches to mass modernization were unnecessarily traumatizing traditional communities while failing to distribute benefits equitably. A growing number of educators and economists⁵ argued that so-called traditional, subsistence and marginalized people were much more economically rational and "educated" within their context than was generally believed. Development itself began to be broadened from the narrow definitions of modern sector, industrial, GNP-growth to include concern with distribution issues, consumption and participation, and to include more explicit concern for the rural poor (who, by any measure, are among the least literate in most societies). With strong leadership from the ILO World Employment Programme in the early 1970's⁶

development thinking began to shift from ways to transform society to enable development to occur, to ways to invest so that people could participate and meet basic needs. Literacy efforts were argued to be directly related to the goals of expanding participation and improving distribution of opportunities.

The Responsive Argument

Literacy programs were offered in response to demand. It was assumed that literacy is valuable at least for those people who are asking for it. The task of planners was to match the opportunities for literacy training with the demand for such training. Though not initially an argument for functional literacy, it soon became apparent that if planners intended to maintain an expanding literacy program, they would have to provide the kinds of training which people desired.

To the extent that economic benefits could be identified (income, wages), literacy programs began to be compared with other investments using the rate-of-return approach. Most individuals were assumed to be economically rational and acting in their economic self-interest. The fact that individuals were enrolling and attending was taken as sufficient proof that it was economically attractive and competitive with other uses of their time and resources. Similarly, it was argued that by comparing the subsequent economic behavior and incomes of neo-literates with their non-literate peers, it was possible to calculate the economic benefit of the literacy training to the individuals.

The responsive arguments continue to be reflected in much of the non-formal education and skills training strategies and in the participatory approaches to the planning of adult education.⁷ The assumption is that individuals know what their needs are better than any observer and that the starting point for program planning should be the assessment of individual aspirations and self-identified educational needs.

The main weakness in the responsive strategy is the assumption that the perceptions by individuals of opportunities and of probable returns are based on reliable information and accurate economic signals. The rate-of-return arguments are also criticized on the grounds that they measure only the private benefits and give little guidance on the benefits to society. In fact, the highest rates-of-return for literacy may be obtained in countries with the most economically regressive social policies, since the few individuals who manage to hurdle into the favored class obtain very large economic rewards. As H.M. Phillips pointed out, in contexts where most people are illiterate, literacy is a valuable skill precisely because it is scarce.⁸

The Modernization Argument

Literacy is considered essential to the modernization process, though it is only one of the elements needed. An early Unesco argument was that for a political system to run smoothly, "it is essential to evolve some sense of national cohesion and general agreement on a whole range of values ... and that the active and conscious participation of citizens in the political life of a modern state cannot develop harmoniously unless these citizens have crossed the threshold of modernization - and literacy is only the first step in this direction."⁹

In addition to the earlier arguments that literacy is a social good and that there is some threshold level of literacy which must be established before the society can prosper, attention began to shift to the ways in which literacy was required for citizens to participate. A new question began to be posed by leaders such as Rene Maheu who asked, "If literacy is a key that opens the doors, what interests us is what is behind those doors."¹⁰

The Empowerment Argument

Though literacy is not sufficient to enable people to accomplish their ends, it is a necessary power which people must have to enable them to take advantage of opportunities and to act effectively in their own interest. Whereas most of the earlier arguments began with the social and economic priorities of the nation and then asked in what ways literacy could contribute, attention began to shift, to the importance of literacy to the individual.

As the development processes in the new nations (particularly in Africa and Asia) began to be challenged and reassessed in the late 1960's, it was recognized that participation was a choice as well as a right and that some people were choosing not to participate or were choosing unpredicted economic alternatives. Thus, in addition to the view of literacy as power or capacity, the question of "power to do what?" began to be asked. Why, if literacy was such a good thing, did so many people choose not to invest time and energy in acquiring it?

The "Conscientizing" Argument

Most effectively articulated by Freire in Pedagogy of the Oppressed, this position incorporated both the modernization and the empowerment argument, while also arguing that in itself the act and the process of becoming literate can change both the individual and the relation of the individual to the context. The process is one of developing the "power to perceive critically the way they exist in the world with which and in which they find themselves so that they come to see the world not as a static reality, but as a reality in process, in transition."¹¹ Freire's influence, even where his ideologic position was rejected, has caused practitioners to focus on the pedagogy of literacy and on the perception of the context by the learner.

The Socializing Arguments

Literacy is one of the skills which must be learned or acquired to function effectively in a given environment or as a member of a group. In many countries the literacy programs are used as part of campaigns to shape and direct the political life of the country (Cuba, Tanzania, Burma) or to affect a conversion (as with much of the missionary related literacy work) or to reinforce desired behaviors and attitudes of the group (as with labor education which has as its primary purpose the functioning of the individual within the union or collective enterprise). The distinguishing characteristic of these approaches to literacy is that though the pedagogy may be adjusted in many ways to suit the characteristics of the individual learner, the content is heavily influenced by the characteristics of the environment and the needs of the group.

The Integrating Argument

It is argued that literacy programming must be guided both by the characteristics and needs of the learners and by the new social and economic reality which the society as a whole is attempting to bring about. Literacy has both a "conscienticizing" and a functional role, considering both the need to make the individual aware and capable and the need to develop skills which are relevant to the needs of society. An articulation of this is in the Peruvian "Integral Literacy Training" in which the recommendations of Freire are rejected as "pedagogic utopianism" and the functional literacy programs are rejected as preserving the status quo.

A literacy campaign of the functional or the conscienticising type, "however well organized, is incapable of altering attitudes that are fundamentally determined by underlying structural problems."¹² Most illiterates in the villages and on the edges of urban areas were women, not yet integrated into the production systems, and the communities seemed more interested in problems such as water supply, lighting, and road maintenance, than in functional literacy or skills training for jobs which were not perceived to exist. Thus, the literacy campaign attempted to help individuals acquire the skills necessary for fuller participation and expanded economic opportunity while recognizing that unless and until other development accompanied the literacy campaign there would be few new opportunities in which to participate.

The Structuralist Argument

Literacy is required to requalify people to participate in societies being restructured by economic forces. This is not because people in traditional societies are without skills to participate effectively within the traditional context, but because the nature of capitalist economic change leads to structural changes in production systems. The division and specialization of labor, separation of authority from production, imposition of new technologies and revaluing of existing goods and skills, have had the effect of making previously skilled workers underqualified. Literacy is needed as part of the "requalifying" process.

Samir Amin, one of the main proponents of this view, argues that "the essential reason why producers in traditional societies acquire their training on the job rather than in school is ... that the division of labor in pre-capitalist societies is far less advanced than in capitalist societies," and that with the changes in the organization of labor, "qualified work gradually draws away from the underqualified labor given to the mass of producers."¹³

The break-up of the traditional education system (the nonformal transmission of skills and knowledge within trades and crafts) "has been replaced by sheer illiteracy. Not merely illiteracy in the limited and conventional sense of the term, but also in the sense of the loss of traditional and technical know-how acquired through training on the job in agriculture and in the crafts."¹⁴ Amin warns that literacy and mass schooling programs for adults are not a substitute for development. If such programs are not accompanied by profound changes in the economic and social system designed to provide effective employment for the entire working population and providing

for the requalification of labor, then they are likely to appear useless both to their beneficiaries and to the authorities responsible for their implementation as a kind of luxury that really does not constitute one of the first priorities of the development process.¹⁵

The Technological Efficiency Argument

A position close to that of the structural or self-reliance analysis is emerging from work in the area of technology choice, technology transfer, and technological adaptation. Though the analysis of technology and the technological skills of workers as an independent variable in economic production functions can be traced back at least to the work of economists such as Solow and Schumpeter, the interest in the relationships between social factors and the patterns of technologic adaptations and diffusion began mainly with the work of Myrdal and others who drew attention to the uneven participation and maldistribution of benefits in the agricultural "Green Revolution." The poorer, typically illiterate farmers, were noticeably missing out on benefits of the new technology. Attention focused first on the problems of obtaining and assimilating new information, which led to the search for more appropriate forms of skill training and education for the informal economic sector. Emphasis was given to more appropriate and effective communications media and information diffusion strategies and to emphasis on functional literacy which included technological information in its content.

More recently, attention was focused on the technologies themselves. This focus was instigated partly by Schumacher¹⁶ and others who stressed more appropriate, intermediate technologies; by analysts of the technology

transfer process such as Goulet, Jequier, Bhala, Timmer and others;¹⁷ and by international leadership such as the work of the ILO World Employment Programme, the industrial studies of UNIDO, and the work associated with the dissemination efforts of the international agricultural research centers.

It is now argued that because technologies have been inappropriately chosen, designed or adapted to the characteristics of the users of participants, additional basic skills such as functional literacy (technological literacy) are required. Alternatively, it is argued that the lack of such skills accounts for the slow and uneven diffusion and adoption of new technologies. Either new technologies will have to be stressed or new efforts must be made to provide the necessary skills. Preferably both will occur.

The Economic Motivation Argument

Most of the arguments discussed here have focused on the contributions of literacy to economic and social development. Literacy has been treated as an independent variable which explains the ability of people to participate and contribute. The analysis of structural and technological factors suggests that literacy may be regarded as a dependent variable, with the motivation to become literate being a response to the economic context and to the economic signals which the context provides, e.g., prices and wages. As the economic context changes (grows, transforms) or as the individual moves to a new context, the role of the literate person changes. Thus, the prerequisite condition for an effective literacy program is seen as an economic context providing sufficiently strong economic incentives to motivate the learner, or, at a minimum, a firm expectation on the part of the learner that the acquisition of literacy will lead to improved opportunity or welfare.

There are two major variants of this argument. The first is that the motivation of individuals to become literate is directly related to their economic need for literacy. Thus, it is the degree to which an individual requires literacy to function competitively or effectively which explains the motivation. As employers begin to require literacy and to favor literate workers and as economically important information is communicated or recorded in written form (deeds and land descriptions, contracts, technical information, and applications), the individual must either become literate or accept significant limitation of economic opportunity.

The second variant is that the motivation of individuals to become literate is part of a complex of changes which are associated with economic change and improvement. Although our knowledge of why people change is limited, and the conditions which make change possible or attractive is limited, it is generally true that most people who are changing, innovating or taking risks are also literate or becoming literate.

Summary

Although economic incentives are recognized as motivating factors within all of the above arguments for literacy programs, the focus has been mainly on the social policy reasons for providing literacy training. In the past, there has been relatively little experimentation or rigorous research on the economic perspectives of the individual learner, on the reasons why some individuals do not find it necessary to become literate, or on the ways by which literacy project design and pedagogy can be used to increase the economic value of literacy to the learner in various contexts. Those engaged

in literacy policy decisions might best be served by specific research efforts in which the economic factors thought to influence the decisions of individuals to acquire literacy skills were studied. With country specific information in hand, policy decisions and choices of direction for literacy training could thus be clarified.

NOTES AND REFERENCES

1René Dumont, L'Afrique Noire Est Mal Parti, (False Start in Africa) (Paris, France: Editions du Seuil, 1962); Bernard Dumont, "Literacy in National Languages and Development," Prospects VI, no. 1 (1976):92-97; Jeanne Moulton, Animation Rurale: Education for Rural Development (Amherst: Center for International Education, University of Massachusetts, 1977).

2Mary Jean Bowman and C. Arnold Anderson, "Concerning the Role of Education in Development," Old Societies and New States: The Quest for Modernity, ed. Clifford Geertz (Glencoe, Ill.: Free Press, 1963), pp. 245-79.

3Walt W. Rostow, The Stages of Economic Growth (Cambridge: Cambridge University Press, 1960); Clarence Beeby, The Quality of Education in Developing Countries (Cambridge: Harvard University Press, 1966).

4Gunnar Myrdal, Asian Drama, An Inquiry Into the Poverty of Nations, Vol. III (New York: Pantheon, 1968), p. 1687.

5Edgar Faure, et al., Learning to Be (Paris: Unesco, 1972).

6International Labor Organization, Employment, Incomes and Equality (Geneva: ILO, 1972).

7Philip Coombs and Manzoor Ahmed, Attacking Rural Poverty, How Non-Formal Education Can Help (Baltimore: Johns Hopkins, 1974); James Sheffield and Victor Diejamaoh, Non-Formal Education in African Development (New York: African American Institute, 1972).

8H.M. Phillips, Literacy and Development (Paris: Unesco, 1970), p. 13.

9Unesco, An Asian Model of Educational Development (Perspectives for 1965-80) (Paris: Unesco, 1968).

10René Maheu, La Civilisation de L'Universel (Paris: Laffont, 1960), p. 104.

11Paulo Freire, Pedagogy of the Oppressed (New York: Herder and Herder, 1970).

12Alfonso Lizarzaburu, "ALFIN: An Experiment in Adult Literacy Training in a Society in Transition," Prospects VI, no. 1 (1976):108.

13Samir Amin, "Literacy Training and Mass Education for Development," in A Turning Point for Literacy: The Spirit and Declaration of Persepolis, ed. Leon Battaille (Oxford, England: Pergamon, 1976), p. 85.

¹⁴Ibid., p. 89.

¹⁵Ibid., p. 90.

¹⁶E.F. Schumacher, Small is Beautiful, Economics As if People Mattered (New York: Harper & Row, 1973).

¹⁷Denis Goulet, The Uncertain Promise: Value Conflicts in Technology Transfer (Washington: Overseas Development Council, 1977); A.S. Bhatta, ed., Technology and Development in Industry (Geneva: ILO, 1975); C. Peter Timmer, ed., The Choice of Technology in Developing Countries (Some Cautionary Tales) (Cambridge: Harvard University Press, 1975); Charles Cooper, ed., Science, Technology and Development (Frank Cass, 1973); Nicholas Jequier, Appropriate Technology: Problems and Promises (Paris: OECD Development Centre, 1976); Frances Stewart, Technology and Underdevelopment (New York: Macmillan, 1977).

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CHAPTER THREE

A FRAMEWORK FOR ASSESSING THE ECONOMIC VALUE OF LITERACY TO INDIVIDUALS

This chapter explores economic factors which appear to influence the decisions of individuals to acquire literacy skills. The chapter begins with a discussion of the definitional problems involved in assessing the economic value of literacy from the perspective of individuals. The economic values of literacy are then argued to be influenced mainly by two sets of factor. One influence is the economic context and the economic signals, rewards and opportunities which it provides, or does not provide, to the individual. The other factor is the characteristics of the individual which affect mobility, economic aspirations, tolerance for economic risk and "room" for economic changes. The economic incentive to invest time, effort and resources in acquiring literacy skills is discussed in terms of the individual's private assessment of the net benefits of doing so, with particular weight given to the costs of time and to the risks associated with making economic changes. Finally, some suggestions are offered of ways by which the literacy program itself can be designed to increase the net benefits perceived by various groups of individuals.

Introduction

Four general hypotheses related to the economic value of literacy are suggested in this chapter. They are presented below with a short discussion of each.

First Hypothesis: Individuals value literacy skills when the skills provide economic rewards from employment or production.

Discussion: Literacy skills directly rewarded in the form of wages or other job benefits (such as increased job security or increased ability to find employment) will be valued by the individual. For the self-employed the rewards may be less direct and take the form of cost-savings, increased productivity or competitive advantage. For the person who is not engaged in employment outside the household production unit, there is likely to be little direct economic reward and the main form of economic benefit will be time savings and technical efficiency.

Second Hypothesis: Individuals value literacy when opportunities for self improvement exist within their context.

Discussion: Individuals seek to become literate as part of a set of self-improvement and behavioral changes associated with a change in economic activity and pursuit of new opportunities. Where economic opportunities exist and change appears feasible and attractive, it is suggested that the individuals motivated to make the changes and pursue the opportunities will also be motivated to acquire literacy skills. Thus, it is suggested that literacy programs will be more successful in contexts in which economic changes are occurring and in which opportunities are expanding than in contexts in which there is little change and few new opportunities.

Third Hypothesis: In addition to any direct economic rewards, literacy contributes to economic welfare through its effects on economic decision-making.

Discussion: Subsistence producers and economically marginal workers have little economic room for risk, change or innovation. Literacy is economically valuable in assisting the literate person to function efficiently and optimally within existing possibilities. By improving the ability of the individual to assess risks, to reduce risks and uncertainty or to acquire information needed for economic decision-making, the literacy program can respond to one of the major needs of learners and, by doing so, increase the participation of individuals for whom literacy may not lead directly to a new economic activity (a new job or a better job, an increase in wages, or a change to producing another product or service).

Fourth Hypothesis: Individuals value literacy when social and economic mobility is high.

Discussion: Lack of literacy reduces economic mobility by making it difficult to acquire skills, knowledge and information across social, occupational and geographic boundaries. As these boundaries grow in number, complexity and discriminating power, the need for literacy and other information-acquiring skills increases. One would expect to find more mobility and more motivation to acquire literacy skills in situations with significant complexity, few rigid caste or class boundaries, and income normally distributed across population categories than in situations having few boundaries, rigid boundaries, little income disparity or bipolar income distribution.

Defining Economic Value

In brief, the main ways by which literacy has economic value to individuals appear to be:

- as a condition for employment, either as an entry requirement or as an essential skill for job performance, leading directly to monetary gain.
- as a skill which has economic utility for the self-employed, leading to qualitative changes, time savings, or cost savings.
- as a means of obtaining information and assessing risks for economic decision-making, leading to improved allocation and efficiency for the semi-subsistence producer/consumer.
- as a factor increasing the self-reliance and economic independence of the individual, leading to greater mobility, more objective risk assessment and more confidence in perceptions of opportunity.
- as a precondition to participation in skills training or other activities leading to additional economic opportunity.
- as a condition for membership or leadership in economically important activities such as cooperatives, unions, credit societies.

There is substantial consensus on the economic value to society of having literate citizens and workers. The reasons an individual may want a better job or more economic security require little explanation. However, the analytical framework through which individuals conclude that literacy is economically valuable is not well understood and there is little consensus as to how values can be assessed or measured from the perspective of the individual. Factors such as the following make a precise statement of value difficult.

- The economic motivation to acquire or refine literacy skills is intimately linked with the motivation to pursue new economic opportunities. In considering the value of literacy, it is important to consider economic motivation and "room" to make economic changes and pursue new opportunities.
- Value is both objectively determined (e.g., a wage or price) and subjectively perceived. Individual characteristics and perspectives will affect the value of literacy. The assumptions employers make about the productivity of literate workers must be considered.
- Literacy skills will have different utility in different contexts. The characteristics of the economic context must be considered in assessing or assigning value to literacy.
- Literacy is a set of skills which may be possessed to different degrees and in different combinations. The ability to assess the economic value of literacy requires an ability to define the levels and types of literacy.
- Literacy is usually valued for more than one reason. While an employer may value only one aspect of literacy, the individual may consider all the ways in which literacy contributes to his/her economic welfare.
- It is often difficult to distinguish between the value of acquiring the literacy skills and the value of having completed a literacy program. For many illiterates, a literacy training program is the only educational opportunity open to them.

The economic value of anything (whether a commodity, an amount of currency or a skill) is normally defined as the amount of some desired good that can be obtained by its possession, application or exchange. It is important to know the nature of the good (what kind, what amount) and who receives the value. Implicit in the definition is that someone wishes to possess it, to have it applied or to exchange for it. Thus, literacy may be

expected to differ in value for the wage-employed and for the self-employed, including the subsistence worker producing mainly for personal consumption.

For analytical purposes, comparison of values is facilitated by the translation of goods into monetary equivalents. In wage-employment, it is assumed that the economic value of literacy will be reflected in the difference in wages paid to the literate and the non-literate worker. This comparison is not always possible in the assessment of economic values for subsistence and semi-subsistence producers except through the application of rather arbitrary assumptions and artificial conventions. In these activities, which are marginal to the monetary economy, most production is for personal consumption, and existent trade is either by forms of barter or involves the exchange of goods considered surplus to the level required for subsistence activities.

Studies of learner motivation in literacy and functional adult education programs¹ in the U.S., in Europe and in developing countries have consistently found factors such as desired self-reliance and independence to be prominently mentioned. Values such as job mobility or security, economic self-reliance, efficient use of resources, capacity to use new technology or information, accelerated communication and avoidance of wasted time also have economic value, though the relation to monetary gain is indirect. Despite the difficulty of obtaining a precise measurement or comparison of economic values between individuals or groups, it is still possible to discuss the economic value of literacy to particular individuals and groups.

A less restrictive definition of economic value such as the contribution of literacy toward the attainment of a desired economic result enables us to consider a wide range of economic goods and to stress the value of literacy as a means toward various economic ends rather than as an end with its own value. Such a definition directs attention 1) to the desired economic result(s); 2) to the tasks or activities through which the result may be obtained; and 3) to the way in which the individual chooses among the available opportunities.

Literacy Obtains Its Value with Reference to Some Desired Economic Result

Literacy in itself has no value in an economic sense, though it may be desired for reasons such as status, self-image or religious function. A starting point for analysis should be the specification of the economic aspirations of the learners or potential learners. These may range from desire for wage employment of a particular type or level, to a desire to use time and resources more efficiently, to a desire to obtain more economic mobility, to a desire to obtain economic security, or to a need to insure a minimum level of production. Each desired economic result has economic value and, to the extent that literacy is associated with the result, literacy also has value.

The value exists when the association exists, even when a mistaken association exists. Economists may be concerned with measuring the actual gain and with describing the functional linkage between literacy and the improved result. However, the motivation exists when, and only when, the learner values the result and believes that a reasonable linkage exists. The

analyst may be able to suggest overlooked possibilities, values or linkages. Unless these can be made realistic and attractive within the analytical framework of the individual learner or potential learner, they have little potential influence on motivation. The analyst should be more concerned with the personal calculus of the individual than with the public or social calculus of what newly literate citizens and workers should value or strive to accomplish. As an observer commented in reviewing Unesco's literacy work prior to 1971,

"clearly, literacy programs must take into account the question of why people are likely to be attracted to them ... it seems likely that many literacy programs are devised according to the notions of what illiterate adults should want rather than what they actually do want."²

Educators should be more concerned with understanding what the economic aspirations and desires of the learner are and what order of priority they have for the learner than with monetary value or how they compare with the normative values assigned by others. In addition, aspirations and expectations may change as a result of the literacy program - through skill acquisition, through "conscientizing," through perceiving new functions and opportunities or through a change in personal status, self-concept or group identity. In short, the economic needs, aspirations and expectations of the learners should be studied as a first step in program planning.

Literacy Obtains Its Value Through Application to Some Task or Activity

The production or acquisition of goods is a result of the activity or task performed. In wage employment it is the employer who determines the value of the activity (assigns a price). In self-employment and in sub-

sistence activities the individual must personally assess the value. Where the task or the activity does not exist (or does not provide a realistic opportunity for the individual to participate) the skill has little or no value. For example, though literacy may be closely associated with a desired form of employment, perhaps required for job entry, the value of the skill depends on the existence of jobs. Where employment is non-existent or where literacy does not increase the wage, the value of the skill may quickly disappear.

An economic value of literacy exists for an individual when it is possible to say that an opportunity actually exists to use the skill in a way which is to the economic good of the individual. In addition to describing the variety of ways in which literacy is economically useful or necessary for individuals, it is necessary to examine whether the opportunity exists to apply the skills. The literacy program planners should be knowledgeable about the kinds of employment which exist or are likely to exist in the near future, the effective demand for additional literate workers, the availability of credit, the kinds of official records which are kept (deeds, land descriptions, tax records in particular) and other factors which tell the planner, and the learner, whether literacy in fact will be used for economic functions.

Literacy Has Value to the Individual When It Increases Opportunities or Helps to Overcome Constraints Which the Individual Perceives in His/Her Personal Context

Unless literacy is deemed to be useful (to have utility) within the individual's context and perceived possibilities, it can have little value. Where alternatives exist for achieving a goal without literacy, literacy has little utility, at least with respect to that goal. For example, if a

satisfactory job can be obtained without literacy it cannot be assumed that literacy has much value with respect to obtaining a job even though we can demonstrate that other comparable jobs do require literacy. There is a demonstrable economic value to being literate when it can be shown that literacy increases the likelihood of a goal being reached (a job being obtained).

A key assumption is that value is actually received by the individual who has acquired literacy, not just by the group, the general society or the employer. When an employer, for example, invests in literacy training for factory workers, the employer may do so expecting a gain in productivity. However, unless that productivity is shared with the workers in some way, there may be little enthusiasm for the training.

A number of special problems arise in considering the relation of the individual to the group. The group may benefit more than the individual, for example, with the contribution of a literate child to an illiterate household. Or the group may actually discourage certain members from seeking employment or acquiring more skills than others, a phenomenon often reported for women in traditional households as well as for low-status castes and ethnic groups. In the first instance, some individuals may attend literacy classes even though the benefit to themselves is only indirect and they have little personal motivation to attend. In the second situation, individuals may have substantial potential opportunities and motivation but be discouraged from attending.

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To summarize the definitional problem, an assessment that literacy has economic value to an individual requires that literacy be seen as contributing toward the attainment of a desired economic result. This requires a determination of what the economic result is, the means or linkage through which literacy contributes to this result and the perception by the individual that the means is feasible and realistic and that the result is desired and within the realm of possibility.

It should not be assumed that literacy skills have the same value for every individual in a context, or even that the same skills are valuable in each context, nor is it necessary to define the precise value of literacy for each individual. Literacy skills are highly transferable, are applicable to many tasks and have both direct and indirect relationships to economic results. The value may be increased as additional opportunities and benefits are created or discovered, as the context changes and as the individual changes. If a literacy program can increase the number of perceived opportunities, increase the accuracy and confidence with which the opportunities are assessed, or demonstrate functional linkages between literacy and opportunities, the value of literacy may be increased.

The Role of the Economic Context

There are many influences on individual perception that literacy will contribute in some way to a desired economic result. Several of those influences are discussed in later chapters. Here, attention is drawn to the role of the economic context as the functions of literacy and the perceptions of value by individuals are influenced by the signals provided in the economic

context. Thus, a first consideration is the degree to which individuals are engaged in production activities in the market economy.

It is only in the case of the subsistence producer/consumer acting completely outside the market that the value of an activity is established by the individual acting alone. For practical purposes, the completely self-reliant subsistence production unit acting independently of all market signals, exists only in theory. As soon as the individual begins to participate in an economic market, whether working part-time, selling some produce and handi-crafts or purchasing some fertilizer and consumption goods, other factors of the economic context (employers, purchasers of goods and services, suppliers of needed commodities or inputs) begin to influence economic values. Thus, in addition to the individual's perception of various utilities of literacy in carrying out productive activities and functions, there is a need for the individual to assess the values or prices which employers, consumers and competing producers place on the activity and production. If the assessment shows that literacy increases opportunities or benefits, the assessment may provide the motivation to become literate. Or it may be that literacy is required for reliable assessment and that the economic value of literacy lies largely in its contribution to the ability of producers to assess risks, opportunities and choices. Both relationships between literacy and economic opportunity can be identified, the first in relation to wage employment, and the second in relation to producer behavior and consumption behavior.

In classical economic theory, markets are competitive, information is equally available to all participants, all participants have essentially the same normative behaviors and aspirations (at least profit or production maximization) and it is economically rational to function at or near the margins of perceived possibility. Under such conditions, if the market either demands or rewards literacy, it is economically rational to seek to become literate.

The more typical conditions in subsistence and semi-subsistence* economies are uncompetitive markets with monopolistic and monopsonistic conditions,** limited and undifferentiated opportunities, a high degree of uncertainty about the future, and relatively little information about the alternative opportunities and their consequences. Under such conditions, the ability to obtain and process information necessary for economic decisions is valuable mainly for those individuals who have at least some surplus resources or "room" with which to attempt alternatives.

*The subsistence level is generally defined as the level of production at which the basic consumption needs of the household are minimally satisfied. A subsistence producer is one whose production is only sufficient to provide for household consumption. Though "subsistence production" is normally used only in reference to agricultural production which does not produce a market surplus, the term "subsistence level" may also be used for non-agricultural incomes which are only sufficient to meet basic needs. A "semi-subsistence producer" is one who continues to produce for personal consumption while beginning to generate some market surplus and/or supplementary income from non-farm activities.

**Monopsony is a market condition in which the product or service of several sellers is sought by only one buyer. Monopoly is the control by one group of the means of producing or selling a commodity or service.

For those without many surplus resources; or much room for mistakes, the most rational behavior may be to adopt "Safety First" or satisfying behaviors which seek first to insure that minimum needs are met (satisfied) using well-tested information and technology, before attempting to achieve other goals or take any economic risk.³

The literature on the behavior of small, subsistence agriculturists⁴ suggests that it is only as the threshold of subsistence is exceeded that optimizing or maximizing behavior becomes economically attractive. Below that level, information skills seem to have relatively little value, since new information can be applied to new productive activities only gradually and cautiously. Where all available resources are needed to meet basic subsistence needs, opportunities which may be attractive to other investors may be too risky for the subsistence or semi-subsistence producers. Many examples exist of farmers being reluctant to adopt new practices, particularly if their land may be placed in jeopardy, unless the expected return is 30-40 percent or more over existing practices.

Contextual factors affecting the economic utility of information processing skills such as literacy for subsistence and semi-subsistence producers are suggested below:

- Changes in the economic context (an improvement in the price of a key commodity, basic crop or production input; a technical change such as the expansion of irrigation or the availability of higher yielding seeds; the availability of supplementary employment; an improvement in job security; a system of price supports or commodity subsidy; formation of a collective or cooperative) may have the effect of making it more certain that the threshold will be reached, or that it will be reached more quickly and easily. Where such changes are occurring there may be more economic "room" for additional opportunities to be

considered and utility for the skills required to obtain and process new information.

- Where innovations in production practices are being introduced and changes in the economic context such as those discussed above are occurring, literacy appears to improve the ability of the producers to acquire information needed for economic decision making.

One of the economic results of having at least a minimum level of adult literacy in a community appears to be the influence of the literate group upon the diffusion of innovations. There is a ripple or demonstration effect of any innovation which may occur in the area. A number of studies attempting to measure the economic effects of literacy have found it difficult to isolate the effect of literacy on the productivity of the individual from the demonstration effects of innovations attempted by others. If the neo-literate innovates and is successful, others may quickly imitate. If a non-literate innovates and is successful, the literate may also imitate. It may be that part of the economic value of literacy is to widen the range of innovations which come to the attention of the literate, or to accelerate the rate at which they come. The ability of the literate to learn of problems and limitations of innovations elsewhere may be as valuable as the ability to acquire information on the successes.

There has been considerable work on the processes by which information on innovations is diffused. Generally, this work suggests that literates are somewhat quicker to adopt new technologies and that this is due to the literate producer's greater access to information. An alternative explanation is that the individuals who tend to be the first to become literate also tend to be somewhat more entrepreneurial and information-seeking. However, the literate entrepreneur would be better equipped to obtain information than the non-literate.

- The need for literacy skills may vary in direct relationship with the amount of instability, complexity, confusion and risk the individual perceives in the marketplace. The traditional farmer may reduce risk and uncertainty by continuing to use well-established practices, even though they may be known to be less efficient or "modern". However, the more prosperous farmer may diversify crops, as the merchant may diversify his/her wares and the artisan may acquire additional skills.

The implication for literacy programs is that where the program can reduce the uncertainty or confusion (through the content, through group activities, through providing the needed information processing skills) the range of economic opportunities or new technical possibilities may be increased. Analytically, economic risk may be reduced by improving perception, information and assessment skills.

- Often, there is room for expanded activity within existing knowledge, practices and resources. So long as the subsistence level can be reached by working longer hours, or through a second job, or by farming more land, there may be little motivation toward literacy, or toward risking a change in economic behavior. However, as literacy and new skills become required to reach this level, e.g., to obtain a better job, or to obtain a more secure job, or to produce more efficiently using the same resources, there may be increased motivation to acquire the literacy skills.
- The individual may reduce or limit the personal risk associated with a desired level of production, enabling the person to attempt production at a higher level. In Guatemala, Maria Freire found a pattern of literate farmers employing more hired labor and rented land, though the total land and labor available to these farmers was not significantly different from that of illiterate farmers. By renting land and labor, such farmers can seek supplementary employment or attempt new crops and practices more easily (safely) than if their own land and labor were at risk. However, by doing so they are more integrated with the market economy and require skills to obtain credit, make contracts, keep simple books, etc.

It is possible that even where there is no demonstrable change in economic income for the neo-literate that the new skill has economic value anyway in that it has opened an alternative employment possibility. Because the individual is somewhat more confident in the ability to make at least a minimum living, it is possible to take somewhat larger risks.

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To summarize this section on contextual factors, the main implications for literacy program design and implementation are:

- Assessment should include learner aspirations/expectations.
- Emphasis should be on the areas and individuals where there is economic "room" for innovative behavior and risk-taking.
- Learning activities should improve perception and understanding of existing opportunities.
- Before assuming underperception of opportunities, assessment should review any factors which are perceived to limit opportunity, personal mobility or the ability of individuals to take risks.
- Literacy programs may be expected to be more successful in areas where economic changes and technologic innovations are occurring.

The Role of Individual Characteristics

In discussing the economic incentives to become literate, it is important that we not exaggerate the opportunities available, nor minimize the impediments and obstacles. The vast majority of non-literate and semi-literate adults are either: marginal agricultural workers, subsistence or semi-subsistence farmers, landless laborers, urban laborers, often recent migrants working in undifferentiated jobs requiring little specialized skill, or women who are not wage-employed (though most women in non-affluent households are economically active in agriculture, in crafts, in petty trading and other economic activities in addition to housework).

Most have both restricted economic opportunity and restricted educational opportunity. It is not clear whether a) the lack of essential skills such as literacy is a significant impediment to further economic

integration, or b) the lack of integration reduces the economic incentive to become literate. There is evidence for both explanations. The key understanding is that the majority of illiterates and semi-literates are not at present in roles which reward the more literate worker or in environments which offer them many educational and economic choices.

The strongest environmental influence on the value of literacy is the price and wage signals which the economic context gives to the individual. As an individual becomes integrated with production processes in the market economy (becomes employed, or depends upon the sale of goods and services to others), the context begins to "tell" the individual (quite literally in many cases) whether it is economically useful or necessary to acquire literacy. The striking fact about most non-literates is that they are not fully integrated into the market economy, and thus not with the economic signals of the market.

Most illiterates exist simultaneously and/or sequentially in several economic worlds, and to the extent that they exist in the market economy, their roles demand minimal literacy, and reward literacy minimally. A common analytic mistake is to assume that all, or even most, rural workers can be described as farmers, or that the term farmer is descriptive even of those who do make their living off the land. Typically, a rural worker will combine agricultural production of both cash and consumption crops with local work as an artisan or hired laborer, seasonal work as a migrant laborer - either in the city or in other agricultural zones, and perhaps production of some crafts or goods produced for sale. Most of the dissenting views on the relation of formal schooling to economic growth have come from observers of rural economies

who have noted the variety of economic roles, the mobility between and among them, and the near impossibility of providing preparation for such diverse rural employment through formal vocational schooling. Literacy is one of the few "vocational" skills which is agreed to have general application in rural economic activities.

In assessing the economic motives or behavior of the rural worker, the literacy program should consider the following points:

1. The sequence and pattern of economic activities: Rarely will it be accurate to identify only one activity as economically important. Further, the area in which change is contemplated may be neither the largest activity nor the activity in which the individual is currently engaged.
2. The activity on which the worker depends for subsistence: In this activity, there is likely to be less room for innovation than in other areas. It is not necessary (or tolerated by most learners) to challenge traditional practices. The individual usually knows that there are alternatives to traditional practices. The traditional practices are preferred because they are well known and they are reliable.
3. Changes in activity: Either new activities (even though a small part of total income) or activities which the individual aspires to attempt should be considered. These are the areas where motivation to change and to apply new skills may be strongest.
4. The amount and areas of activity over which the individual has discretionary control: Landless laborers have little control and their only discretionary choice may be to seek employment in the city. Persons with secure title to land, with assets to hire land or labor or with a surplus of production or time or land, may be expected to be more innovative (to have more room for discretionary economic decisions) and to be more interested in new skills.

Several typologies have been suggested for the distinction of categories of illiterates according to their economic need for literacy. The following synthesis is suggested:

By age There is an emphasis on adults, both in rural and urban areas as young children and adolescents are increasingly covered by formal schooling. For those who are not covered, the value of literacy will grow as their responsibilities and aspirations become better defined.

Type of employment It is necessary to distinguish between subsistence, semi-subsistence, self-employed, wage-employed. A distinction is also necessary among older adolescents and adults (predominantly women) who are aspiring to enter remunerated employment.

In rural areas Adishesiah⁵ and the World Bank suggest the need to distinguish among a) small farmers who could produce both for their families and for a marketable surplus, but who do not now do so; b) the marginal farmers who are non-viable now and will be, without supplement non-agricultural income; and c) the landless farm laborers whose dependence on wages keeps them at the poverty line.

In urban areas A distinction is needed between a) new urban immigrants for whom the reduction of confusion and uncertainty may have high economic value; b) the self-employed; c) unskilled workers in established plants and factories whose mobility, but not whose job performance, requires literacy; and d) workers in new plants and factories who require functional and post-functional literacy to adjust to new production processes, technologies and organizations including labor organizations.

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To summarize this section, the characteristics of the individual affect the value of a new skill such as literacy in the following ways:

- Individual characteristics affect mobility within a context and mobility between contexts.

- The context provides economic signals (wages and prices) which are perceived differently by different individuals.
- Individual characteristics affect the level of income or production which is necessary for subsistence, thus the degree to which economic change and innovation is perceived as possible and desirable, necessary or risky.
- The form of employment or production in which an individual is engaged affects the kinds of new information and opportunities which can be considered and the value which is placed on personal skills, knowledge and decision making.
- Individuals differ greatly in their economic aspirations and expectations, perceiving different possibility sets.
- Individual experience with primary reference groups, with the economic market, with previous development efforts, and with natural phenomena, affects confidence or insecurity with respect to the future, and thus the degree to which the new opportunity is perceived as feasible, attractive and prudent.
- For each group of learners normative economic behaviors can be distinguished, e.g., satisfying, optimizing, maximizing.

Economic Incentives to Become Literate

The central arguments of the preceding sections have been that the economic value of a skill such as literacy is determined by the degree to which the economic context provides realistic opportunities for economic improvement, by the degree to which the context provides economic rewards to the literate individual and by the degree to which the individual perceives economic room to attempt changes and seek new opportunities. When the individual concludes that literacy is economically valuable, it is assumed that the individual will take advantage of an opportunity to become literate. However, many individuals do not become literate, even though it appears to observers that it would be to their advantage to do so. A full understanding of the economic motivations to enroll and participate in literacy training requires assessment of the costs and impediments of various kinds as a separate consideration from the assessment of benefits or value.

There has been little research or quantification of the cost-benefits of literacy programs. This has been due to the fact that program evaluators have generally been more concerned with cost-effectiveness studies, evaluating programs and program expenditures rather than learner motivation and behavior, and due to the fact that both the costs and the benefits are difficult to define. H.S. Bhola concludes that:

Cost-benefit analysis is far from simple and can turn into a complex exercise in arbitrariness and self-deception. One can usually estimate the costs of a programme in terms of cash, although many economists assert that this is not easy. Planners can estimate project expenditure on things such as wages and rents, but are not always able to include the costs of all the facilities used or that of 'piggy backing' on a multitude of officials assisting a particular programme. It is also hard to put a money value on human and social costs. How much does it cost to sit in embarrassment among a group of people you have never met before? How much does it cost to send children to school instead of keeping them at home to work or take care of younger siblings? What is the cost of changing from one cash crop to another? What is the cost of uprooting oneself from the native village in order to work in a factory? Or of surrendering claims to a small piece of land in order to become part of a large co-operative?

Benefits are even harder to compute in money terms. One can put a cash value on increased productivity or fewer sick days, but one cannot put a cash value on the education of children, change in women's attitude, and the development of new identities among farmers, workers and housewives.⁶

While it is generally agreed that the technical problems of defining and measuring costs and benefits make cost-benefit assessment of programs difficult, if not impossible, the assessment of the privately-perceived costs as well as benefits is essential to understanding economic motivation.

The most important types of costs affecting economic behavior appear to be:

<u>Time</u>	Time invested in obtaining the skill, time invested in a new activity, time until an improvement or benefit is received, periods of time over which the benefit is received. Time may be one of the most important costs as well as one of the benefits of obtaining literacy.
<u>Risk</u>	The possibility that the subsistence threshold will not be reached; consequences of failure, such as loss of land; possibility that literacy may make employment less secure if employers perceive literate workers as potential troublemakers or as not worth the required increases in wages. While the acquisition of literacy may not entail risk in itself, there may be substantial risk associated with the new activity or economic change.
<u>Monetary</u>	Foregone income during the training period; any fees or materials costs associated with the training; the requirement of some form of capital to implement the innovation. Even a very small financial cost, such as the cost of kerosene or batteries for a lamp, can be a significant cost to a person whose cash income may be only a few dollars a year.

The minimum condition for economic choice must be that any perceived benefits are at least as great as any perceived costs. One of the problems is that costs tend to be more accurately perceived than are benefits. They are more immediate, often more tangible, and usually more certain. Thus, even though the observer may be able to project substantial benefits, the individual must first assess whether the activity is feasible. Are the risks tolerable? Do the minimum resources exist? Is there time?

Many observers argue that the motivated learner who perceives the value of literacy can go a long way to overcome barriers of methodology and pedagogy.⁷ It seems that people who feel the need for literacy will accept the general skills in whatever form they find them. While it appears to be true that where perceived value exists, students will bear substantial costs

and inconvenience, it is probably more accurate to assume that the perception of value subsumed a number of private cost-benefit calculations in the first place.

It appears that another element to be considered in the cost-benefit calculation is that of the confidence which people have in the future and in the assumptions that they must make about the probability that things will work out as they have hoped or planned they will. Analytically, we can discuss this confidence in terms of risk and probability, discounting the cost-benefit assumptions by a probability or chance function. For example, we may observe that the income differential between a rural area in which literacy has little value and an urban area in which unskilled/illiterate labor is employed might be 1 to 3. However, the urban worker may have to spend considerable time looking for a job, and the job may be temporary and insecure. The rural worker may calculate that his welfare is better with secure but lower paid work. If literacy gives the urban worker a higher wage, say making the income differential 1 to 6, the value of becoming literate can be stated. However, if literacy makes it twice as likely that a job of some kind will be obtained, or that a job will be obtained in half the time, literacy also has an economic value of some magnitude even though it may not lead to a higher wage. There are several studies of the relation between basic education and urban migration which suggest that it is the effect of literacy on the certainty of employment which gives it value.

A similar effect may be observed in the relationships between literacy programs and successful rural development efforts. A number of writers have commented upon the fact that in traditional village cultures people do make

changes and choices but only slowly and cautiously, as they become confident of the results. However, because there have been so many failures and false promises, it becomes quite prudent to be cautious, to make change slowly. An economic cost becomes associated with change itself. This "cost" or lack of confidence, which includes most elements of risk discussed earlier, appears to be allayed under two conditions.

First, risk appears to be allayed where participation is high. One of the needs is for some kind of group in which to participate. Both the existence of a group and the opportunity to participate in planning activities and generating content or making decisions appear to contribute positively to making benefits more probable and costs less risky.

Activities undertaken as part of a group effort may be more acceptable than independent actions by individuals. Some of the anthropologic literature suggests that peasants cooperate in order to maximize benefits and reduce costs (to create a larger cake) but that they are suspicious of possible attempts to gain a disproportionate share (a larger slice).⁸ Other observers stress the positive role of the group in establishing and legitimizing new production norms, role expectations, parameters for establishing prices, choosing technologies, distributing resources and other influences on the economic choices of the individual.⁹

In a number of cases, the literacy effort has been based on an existing economic group, such as a cooperative or a factory or a collective farm. In a few cases, the literacy group appears to have transformed itself into an economic self-help group.

Secondly, confidence is increased and risk is reduced through the integration of literacy programs with long-term commitments to other changes and improvements in the economic context. Though the functional literacy and skill training may be only modestly successful initially, as the other programs become seen as continuing and making steady contributions in areas of need, confidence grows in the value of the associated education. In India, the success with varieties of miracle rice led to similar success in introducing other innovations. In a sense, the cost of the second innovation has been reduced because of the greater confidence in the probability that it will be a good change and that it will be successful.

Bernard Dumont provides a good example from a country with one of the world's lowest literacy rates and poorer records of economic development:

The Malian project had the advantage of specially favorable circumstances: the launching of the project coincided with that of large-scale rural development operations where the goals defined, the techniques employed and the results achieved were genuinely and speedily beneficial to the peasant. The aim of all these operations was not only to increase national production of an important marketable product (cotton, groundnuts, rice, etc.) but above all to raise the level of the agricultural knowledge and practices of the peasant in order to diversify production; the techniques introduced for this purpose (emphasis on the use of animals for draught and to provide manure, the use of selected seeds, the establishment and observance of an agricultural timetable, with rotation cropping) avoided any sudden upheaval which would have handicapped the small farmer, while constituting a gradual, yet appreciable, improvement in his traditional techniques. The result was not only the appearance of a cash income (in some cases substantial) for the peasant, but also a noticeable increase in the production and regularity of traditional food crops: at the time of the great droughts in 1971 to 1973 the food crops of the areas organized into "Operations" escaped the sudden decline noted everywhere else.¹⁰

The main educational policy conclusion of Maria Freire's Guatemalan study would tend to substantiate Dumont's observation:

...educational policies, aiming at improving the literacy level of rural farmers, have a positive effect on agricultural productivity and farm efficiency, whenever structural and institutional factors do not prevent that effect from taking place. That is, farmers' literacy appears to be correlated with higher use of chemical fertilizers, crop diversification and higher integration in the monetized sector of the economy; however, educated (sic) policies can increase the level of agricultural productivity only when rigidities in credit available to small farmers, land tenure system, and contractual arrangements are flexible enough to make it possible for literate farmers to benefit from increased educational abilities. Whenever those constraints operate, increased education may lead to educated (or at least more educated) farmers and workers, leaving farming jobs and entering the labor markets outside their rural community, this being particularly likely in the case of small and medium farms where labor productivity is lower.¹¹

Though literacy program planners are usually not in a position to influence employers or government policy makers to change the economic policies and economic rewards, they can make sure that the program responds as directly, as possible to the opportunities that do exist and to the needs of adult learners for practical skills which have immediate economic value. Adiseshiah sums up the situation,

...There is no a priori method or materials of literacy functional to the farmer/cultivator and his interests, needs and problems. The start is not teaching about a high yielding variety of wheat or paddy, or producing learning materials around NPK fertilizer dosage, and its water and pesticide requirements. These are still too far and too theoretical in relation to the functionalities of the farmer/cultivator, whose motivation is to work out the cost-return of the new technology, so as to be assured that he and his family can be fed, clothed and housed, or whose produce and productivity would earn him

a wage which will cover his family's living expenses, and in the process face and find an answer to the monthly, weekly and daily problems that he faces in the new setting in which he is placed. The literacy tool that he wants is one that can be a problem solving tool and not, in the usual pedagogic tradition, an information-inundating one.¹²

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To summarize, in assessing the economic incentive or motivation to become literate and to understand new economic behaviors, we must assess both the costs and the benefits of literacy as well as the degree to which the individual is confident in the accuracy or reliability of the assessment and feasibility of the activity. Benefits to be derived may be of many kinds, monetary and non-monetary. Each will be valued differently by different groups of individuals. The decision to take action to become literate is based on a net assessment by the individual. The "objective" analyst or planner can, at best, only approximate the assessment.

The essential argument is that while it is possible to design literacy programs which are functional in specific contexts and which take full advantage of the economic incentives of the learners as a powerful motivation for becoming literate, it is only possible to do so to the extent that important functions can be defined as realistic and valuable in the context of the learner.

Literacy Project Design Variables Affecting Economic Incentives

A project design can be tailored to increase the perceived net benefits for the individual learner, both by efforts to increase or improve the perception of possible opportunities, applications and benefits and by reductions in

costs to the learner. Costs can be affected by: the timing and location of the training; the flexibility of the training program, particularly with respect to time; and/or measures which affect the possibility of failing or wasting time in the training. The more effectively costs are reduced or eliminated, the more the privately perceived benefits are enhanced.

It is difficult to generalize about the appropriate balance to be struck between costs to be born by the learner and costs to be publicly subsidized. Perhaps the most important point is that no program can be, or should be, entirely free of cost either to the individual or to the society. With respect to the opportunity costs of time, the people with the fewest alternatives will tend to have the most time. If there are no other costs associated with enrollment, the program may attract mainly those who have nothing better to do.

A modest, but significant, cost to the individual may actually increase motivation. Adults, particularly adults who are struggling economically, are likely to view with suspicion a free activity. It is either of little value or there is a hidden agenda. Costs, including time costs, must be feasible, but the inclusion of some costs helps to assure adults that it is a serious activity.

The existence of some public subsidy also appears necessary. There is a contradiction between the high level of rhetoric which surrounds many literacy programs assuring participants of the importance of the activity and the low level of public support. Rarely does the level of public support for adult literacy efforts approach that of primary schooling.

The age of the learner affects both the costs and the benefits of acquiring a skill. From a social policy point of view, the highest net benefit would theoretically be for unmarried young adults who are seeking their first wage employment but have not yet determined a vocation. However, for individuals, the highest motivation is likely to be for somewhat older workers with responsibilities who perceive a specific occupational need for literacy.

The more homogeneous the group of learners in other respects (age, occupation, sex, socio-economic status), the more commonality which can be assumed about participant aspirations, learner knowledge of skill values/utilities, important role models and information sources, nature of contact with employers, dissatisfaction with status quo, feasible costs, and time available. The motivational profile, perceived net benefit and possibility set can more easily be assessed for the homogeneous group of literacy learners, suggesting that a learning strategy which is economically responsive can more easily be designed for a homogeneous group than for a heterogeneous group of learners.

The closer the training is to the points of application, the more possibility of improving perception of opportunities and task requirements. Also, since the location of training influences the costs and feasibility of training for different groups of learners, the location of training will affect the homogeneity of the learners. Learner perceptions of the value or utility of literacy may be enhanced by exposure to employers, either directly or through incorporation of realistic work situations in functional literacy curricula. The more interaction between literacy and specific skill training,

the more motivation can be enhanced. These and other design variables will be explored further in later chapters.



In summary, the economic incentives to become literate may be influenced by:

- making benefits larger, more certain, different in kind, more proximate, of longer duration, or more direct to the learner.
- making costs smaller, less certain, more distant, shorter in time, different in kind, or more shared by society.
- reducing doubts about any of the above; improving confidence in perception of net benefits.

With respect to the private assessments of the net benefits from training, whether in literacy or in other skills, the private assessment tends to be higher than the public assessment, due to the fact that:

- costs of training tend to be subsidized;
- benefits are individually controlled;
- non-economic benefits exist;
- some "free goods" are invested - e.g., time; and
- skills are transferable and may be used for unintended and unexpected purposes.

Thus, it is reasonable to expect that in most literacy programs the individual stands to benefit more than might be assumed by cost-benefit calculation from the public perspective, were it technically possible to make such calculations. Logically, we should assume that when the motivation or attendance of individual learners is less than the program planners expect, the problem lies less in the fact that the learner does not adequately perceive the benefits as in the fact that the planners have overlooked various limiting factors, costs and risks to the individual.

NOTES AND REFERENCES

¹David Harman, Community Fundamental Education (Lexington, Massachusetts: Lexington Books, 1974); H.M. Phillips, Literacy and Development (Paris: Unesco, 1970); Rupert Evans and Edwin Herr, eds., Foundations of Vocational Education (Columbus, Ohio: Charles Merrill, 1978).

²Unesco, Literacy 1969-1971 (Paris: Unesco, 1972), p. 39.

³See discussion of "Safety First Literature," in Maria Emilia Silva Freire, "Assessing the Role of Education in Rural Guatemala: The Case of Farm Efficiency" (Ph.D. Dissertation, University of California, Berkeley, December 1979), p. 8 and pp. 164-172.

⁴Clifton Wharton, ed., Subsistence Agriculture and Economic Development (Chicago: Aldine, 1969); Theodore Schultz, Transforming Traditional Agriculture (New Haven: Yale University Press, 1964).

⁵Malcolm Adiseshiah, "Functionalities of Literacy," Prospects VI, I (1976): 86-88.

⁶H.S. Bhola, Evaluating Functional Literacy (Teheran: International Institute for Adult Literacy Methods, 1979), pp. 118-119.

⁷Mansoor Ahmed, "A Literacy Strategy for Rural Development" (Persepolis, Iran: International Symposium for Literacy, September 1975); John Oxenham, Non-Formal Education Approaches to Teaching Literacy (East Lansing: Michigan State University, 1975).

⁸George Foster, Traditional Cultures and the Impact of Technological Change (New York: Harper & Row, 1962).

⁹Denis Goulet, Looking at Guinea Bissau, A New Nation's Development Strategy (Washington: Overseas Development Council, 1978).

¹⁰Bernard Dumont, "Literacy in National Languages and Development," Prospects VI:I (1976): 92.

¹¹Freire, op. cit., p. 189.

¹²Adiseshiah, op. cit., p. 87.

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CHAPTER FOUR

ENVIRONMENTAL FACTORS MOTIVATING LITERACY

In this chapter, it is argued that social and linguistic factors exist in every society which require or prohibit, support or fail to support, the acquisition of literacy. These factors are reflected in the number, variety and importance of activities which require literacy in a particular environment. They are presented here as a framework through which to characterize the strength of the literacy environment. It is proposed that the strength of the literacy environment influences the learner's motivation to acquire literacy skills.

Societal Incentives and Factors

Before discussing social and linguistic factors supportive of literacy acquisition, it is important to look at the nature of social incentives. In the previous chapter a set of incentives were presented which are economic in nature. It was posited that the acquisition of literacy leads to an economic benefit, or the failure to acquire literacy has an economic cost. The majority of other incentives are classified as societal in nature, in that the society either provides social rewards or restricts social roles depending on whether or not the individual acquires the necessary literacy skills. It is important that this review include a discussion of social incentives because of the difficulty in clearly separating the effects of economic and social incentives.

Introduction

For purposes of this discussion social incentives will be broken down into three categories. They are: normative social pressure, gatekeeping and

personally-held or discretionary goals. Society is composed of institutions which present to its adult members a set of criteria by which to behave in order to be accepted. When this normative social pressure demands that literacy skills be acquired, it provides motivation to strive to acquire literacy skills. Motivation for literacy is also provided by social institutions which use literacy skills to restrict membership. This gatekeeping function may be planned or inadvertently imposed. Motivation also comes from discretionary or personally held goals. Motivation is present when an individual values literacy and numeracy as a means not to perform a task demanded daily at work or home, but because it enhances a personally held goal.

These types of social incentives are generated in social groups and institutions. In the sections which follow, they are discussed as operating in familial, religious, political and educational groups or institutions.

Household/Family

The role of the family as educator is widely observed and acknowledged. The family is a transmitter of culture between generations largely through modeling and imitation. If reading and writing habits are practiced by one generation and proposed as part of learning of prescribed roles, it can be expected they will be transmitted and internalized by other members. The family also resocializes its members throughout life by consciously revaluing and reshaping previously learned behavior. In so doing, the family is often the strongest source of normative social pressure.

The family manages resources to allow for new learning from outside sources. It can reassign responsibilities to permit older members who are highly productive at home some free time to pursue nonformal education. On the other hand, should it judge that opportunity costs are too high, it may refuse an individual's request to attend. These decisions are reflected for example, in the high dropout rates of women in general and of men of the economically active age in the programs of the Experimental World Literacy Programme (EWLP).

There is some evidence to suggest that increases in literacy skills are found among household members who share an increase in standard of living. For example, evaluations of EWLP in Tanzania² found slight increases in the possession of durable goods among participants in literacy programs. It may be that acquiring higher levels of literacy will be a part of an overall pattern of change seen when discretionary income is available, resulting in new habits in diet, clothing, entertainment, for example.

Research findings indicate that the family acts as a unit, sharing and acting on information obtained by one literate member. The University of South Florida's study in Guatemala of the effectiveness of various communication media in promoting change among 1300 farmers and their families, found that membership in a highly literate family is related to increased use of modern agricultural practice, whether a farmer is literate or not. Family literacy was more predictive of adoption of modern practices than individual literacy. The study provides no evidence to suggest whether the presence of one literate family member retards or speeds literacy motivation among other members.

A number of household management functions are facilitated by literacy skills including record keeping, measurement, the sustaining of interpersonal relationships through personal correspondence, routinization of procedures such as that which occurs with the collection of receipts and the making of consumer decisions. This analysis suggest that where literacy skills enhance a high number of household management functions, motivation for literacy will be present.

The literacy-oriented functional education program planner should take particular care to understand and plan strategies for work and for the family. Motivation is strongly influenced by the perceptions of self held by those counted as most significant in one's life, for the most part, other family members. In societies where familism (enhancement of family well-being before individual well-being) is highly valued, literacy planners may have better result. if they can show how the family unit will benefit by a member's achieving higher levels of literacy.

Religious Institutions

Religious institutions are strong sources of normative social pressure for literacy in many societies. Learning to read religious texts and hymns may be required of an entire congregation, as is common among Protestant religions, or of only a selected group such as future male heads of households represented historically by the education of sons to read the Torah or Koran. Literacy instruction in these religious institutions may take place through systematic or unsystematic methods; nonetheless, where the demand is present, literacy skills are acquired.

Wilder⁴ provides an example of how literacy skills were acquired through traditional religious institutions and transferred to literacy in a language of wider communication. He found that Lao men who had never been through formal schooling achieved literacy in the Lao language after residing in the wat. They learned to associate sound with symbols in reciting prayers by rote in the Pali language. Although systematic instruction was not given, over a period of time they became literate. Because the script approximated that used in Lao, they were able to transfer their skills to reading Lao.

Literacy skills acquired through participation in religious practices are often in a higher status variety of the language than that used in daily communication. (A higher status variety is a form of a language often used by an educated elite for writing or for communication in formal contexts.) Acquiring a higher level of proficiency in literacy skills in this high variety may serve a gatekeeping function in controlling access to special groups such as those accepted for training as clergy. Literacy motivation can result when a non-literate individual desires to join such a group.

Schooling

The presence of schooling has both a long term and a short term influence on adult literacy. Sheffield's review of 25 studies of literacy retention among adults who attended some primary school, compared to adult literacy program participants, found that retention is positively related to years in school⁵. It failed to substantiate that there is a level of primary education at the completion of which literacy skills are retained.

The presence of illiteracy in communities is associated with lower levels of, or lack of, formal education. Illiteracy is found among those groups in the population which have least access to schooling - older members, women and rural residents. Schooling may be a path to universal literacy; however, it requires considerable lead time for an entire adult population to receive schooling. It requires a commitment to provide universal access to education, especially hard-to-reach populations.

As the proportion of persons attending primary school increases, motivation to acquire literacy by non-literate adults can be expected to increase. Normative social pressure may change to convey the expectation of adult literacy in cases where the school system involves parents in the child's education. Personal values may motivate literacy among family members who wish to share the world of their children and help them with homework. A common experience of adult literacy teachers in India⁶ is to find participants enrolling, in part, to learn to read the primers used in primary school. Status is earned by being able to say, after so many days of study, that one can read the same text as one's son who is in grade two.

The presence of universal schooling for children can be expected to both complicate and enhance participation in literacy-oriented functional education programs for adults. Adults may enroll for multiple reasons such as to "catch up" to the educational level of their children, to be able to read a newspaper and to understand extension bulletins. Program curriculum may, on the other hand, be designed to meet only one of these objectives.

Persons who left school at different grade levels may be present in the same class. This variety of entering competencies with respect to levels of literacy may make it difficult for the instructor to present new information to all and sustain the necessary interest for continued attendance. Participants are likely to have positive attitudes towards learning and self-confidence in their ability to achieve from earlier experiences in schools, perhaps even enough to encourage risk-taking and personal investment in further education such as enrollment in adult instructional programs. Schools may have taught literacy skills in a high status variety of the language which, because of infrequent use, has been forgotten. The experience, however, may provide a foundation of transferable skills for learning the vernacular or a language of wider communication chosen as the language of instruction in the literacy-oriented functional education program. By building on transferable skills, the instructor can insure early success for participants, an important factor in maintaining attendance.

Political and Legal Structures

Coordinated government efforts are influential in providing motivation to learn literacy skills through mass campaigns. A number of international literacy specialists and educational leaders have emphasized that a strong national will and the presence of material resources are both critical factors in the success of literacy programs.⁷

Political systems provide a strong motivation for literacy when they utilize literacy to reward or restrict privileges of citizenship. In some cases governments have formalized this criterion into law as in the United

States until the 1960's when some state governments required literacy skills as a prerequisite for voting. Laws likewise demand literacy in an increasingly codified and specialized manner of written communication. Where land reform and taxation have resulted in redistributed property ownership, literacy is needed to understand legal obligations including rights of purchase and tax obligations.

Social Factors Contributing to a Literacy Environment

The institutions and groups described above contribute to the environment within a specific community in which the learners will find support, indifference or prohibition in their effort to acquire literacy skills. Indicators of this support or lack of support are the number, variety and importance of literacy skills required of individuals if they are to interact effectively with these groups and institutions. The degree to which these groups and institutions use printed materials, require physical movement on mass transportation systems or use a linguistically complex language for communication affects the individual's ability to cope with these groups. Where more printed media is used, where more mobility is required, and the greater the ease in acquiring the language, the stronger the literacy environment will be.

Mass Media

The prevalence of mass media is associated with higher levels of literacy. Follow-up material must be present in the learners' environment if they are to retain the literacy skills acquired through formal and nonformal

education. Roy and Kapoor,⁸ for example, found that continual availability of reading materials, books, magazines and newspapers was associated with higher levels of literacy. The relationship between higher levels of literacy and radio and film exposure is less clear.⁹ Rather than caused by literacy, radio listening and movie-going may be part of a number of changes in behavior made as one shifts to a new life style. It may be, as noted in the discussion of increased family income, that depending on the culture, one of the first changes made when discretionary income is available is the purchase of a radio or a movie ticket.

Mass Transportation

Use of mass transportation has not received significant attention as a factor associated with higher levels of literacy. However, personal observations suggest that literacy skills facilitate utilization of mass transportation by allowing self-reliance and independent decision-making in deciding to travel and in arriving at distant and new destinations without the accompaniment of a literate companion. Where wide access to mass transportation is available and is characterized by scheduled departures, this discussion suggests greater levels of literacy will be present.

Influence of Linguistic Factors

Linguistic factors associated with levels of literacy include factors related to the stage of development of the language and to attitudes towards, and prior skill in, the language of literacy. Factors relating to the stage of development of the language are presence of a written form of the language,

degree of modernization of the language and degree of standardization of the language.

The first criterion for acquiring literacy skills in a given language is that the language be written down. The design of orthographies has political, cultural, and educational ramifications and competing orthographies may exist. However, an orthography must have been chosen and developed if literacy is to be achieved in that language.

A second criterion is that the language have the capacity to develop or modernize. A language which is used for communication in daily life demonstrates a capacity to develop when it 1) has a written form which is widely understood, 2) meets the need for new and/or specialized vocabulary by inventing its own terms or accepting loan words, and 3) can be used for translating other languages of wider communications.

In order to become widely understood, the language needs to undergo standardization in which a norm is established which supercedes regional or social dialects. The third criterion, standardization, occurs through the development of dictionaries and grammars and with the use of the standard forms in written records. A difficulty that literacy instructors should expect in teaching recently standardized languages is some sound/symbol divergence among speakers of dialect varieties of the standard.

Language speakers are constantly encountering new topics as they hear news of the outside world. They encounter changes in technology and science as well. Language accommodation occurs through the introduction of words and expressions. Wide acceptance has been achieved through gradual change where practitioners are involved in generating, learning and sharing the use of

terms. If the language is a local language, the process may involve the development of a new written language and be supported because of its importance as a political statement.

Learning to be literate in one's mother tongue can be an empowering experience since it implies control of the speaker's own language. When a written form does not exist and literacy is conducted in a language of wider communication, people cannot relate things of importance to themselves in written form. A second source of alienation may be introduced when a group perceived as external creates the orthography. If the group is trusted, people may be more likely to trust the language to communicate information of significance and intimacy. If not, they may use the language for only public activities such as trade.

The vernacular may not be accepted as the language of instruction when a language of wider communication serves a gatekeeping function and adult learners wish to gain social mobility by learning it. Harman¹⁰ cites two examples where vernaculars were rejected. In former French colonies of Africa, education authorities decided that vernacular languages would be used in functional education programs with adults who did not understand French. Learners objected fearing the beginning of a policy of segregation and insisted on learning French. Similarly, Harman reports that among Africans who became literate in English there has been opposition to the use of vernacular languages in education on the grounds that their use will prevent the spread of Western ideas and culture and will impede the progress of the African and his integration into the modern world.

While some attention has been given to the codification of new words into dictionaries, less is known about the process by which consistent use of words is assured for distinct sectors of the population. Adult educators, through materials development, have a central role in this area. They may add to confusion or spread common understanding of scientific concepts and technically specific vocabulary depending on their care in the selection, explanation and application of terms. To do an effective job, adult literacy specialists need to mediate language considerations at several levels. First they need to find out what languages are in use, what their written forms are, and in what areas they are used (e.g., extension bulletins, record keeping, scientific discourse). At another level they need to work with the government (which may be primarily interested in the development of one national language which is perceived as a means through which to achieve national integration) to see what local forms are acceptable for publication.

A fourth criterion is the presence of positive attitudes toward the language of literacy. Persons in one setting may feel positive toward learning literacy skills in a given language while others in a different setting view acquisition of literacy skills in the language negatively. Berry¹¹, for example, discusses a case in Cameroon where "nationalistic opposition to a colonial language resulted in a tribal group opposing the writing of their language with symbols based on French." Non-literates may on the other hand be motivated to learn orthographies which they identify with the prestigious languages around them.

The final characteristic associated with the individual's ability to acquire higher levels of literacy is prior oral fluency in the language in which literacy is to be acquired. Literacy is easier to acquire where the mother tongue is used as a language of wider communication. However large numbers of illiterates use local languages as mother tongues and enroll in literacy instruction to gain competence in reading and writing national languages. Gudschinsky examines their situation in a state-of-the-art article reviewing techniques for functional literacy in indigenous languages and the national language.

The individual cannot pass directly from . . . native control of a non-national language as an illiterate monolingual . . . to . . . oral and written control of the national language as a second language . . . He can, however, be taught oral and written control of the national language by either of two teaching sequences: (1) by instruction in literacy skills in his own language . . . followed by instruction in speaking and reading the national language; or (2) by oral instruction in speaking the national language . . . followed by instruction in literacy skills in that language.¹²

Having completed a review of societal and linguistic factors, it is now possible to characterize high and low literacy environments. A high literacy environment is a setting in which literacy skills are required to function efficiently at work, participate in fair trade in the market place and manage and perform the daily activities of the household and community.

NOTES AND REFERENCES

¹UNDP/Unesco, The Experimental World Literacy Programme: A Critical Assessment (Paris: Unesco Press, 1975), pp. 17-103.

²UNDP/Unesco, "An Evaluation of the 1970 Cotton Programme: Final Report" (Dar es Salaam: N.p., 1971), p. 38.

³Edgar G. Nesman, Thomas A. Rich, and Sara E. Green, Individual, Family and Village Literacy in Development (Tampa, Florida: University of South Florida, Project Report to United States Agency for International Development, 1980), pp. 28-44.

⁴Bernard D. Wilder, "An Examination of the Phenomenon of the Literacy Skills of Unschooled Males in Laos" (Ph.D. Disseration, Michigan State University, 1972), pp. 141-145.

⁵International Development Research Centre, The World of Literacy: Policy, Research and Action (Ottawa, Canada: IDRC, 1979), p. 71.

⁶S.C. Dutta, interview held at Indian Adult Education Association, New Delhi, India, November, 1979.

⁷Interview with M. Cipro, Unesco, Paris, November 1979 and with Dr. Chiba, Unesco Regional Office, Bangkok, December 1979.

⁸Prodipto Roy and J.M. Kapoor, The Retention of Literacy (New Delhi, India: The MacMillan Company of India, 1975), p. 47.

⁹Daniel Lerner, The Passing of Traditional Society (Glencoe, Illinois.: The Free Press, 1958), p. 58.

¹⁰David Harman, Community Fundamental Education (Lexington, Massachusetts: Lexington Books, 1974), p. 68.

¹¹Jack Berry, "The Making of Alphabets Revisited," in Language and Literacy: Current Issues and Research, ed. by Thomas P. Gordon (Teheran: International Institute for Adult Literacy Methods, 1977), p. 54.

¹²Sarah C. Gudschinsky, "Techniques for Functional Literacy in Indigenous Languages and the National Language," in Language and Literacy: Current Issues and Research, ed. by Thomas P. Gorman (Teheran: International Institute for Adult Literacy Methods, 1977), p. 66.

CHAPTER FIVE

PERCEPTION: PERSONAL VALUES, SELF AWARENESS AND OCCUPATIONAL CONCEPTS WHICH INFLUENCE THE LEARNER'S ACQUISITION OF LITERACY

The two points developed in this chapter are that 1) perception of the value of literacy is a major variable in a learner's striving (or motivation) to acquire new levels of literacy and 2) that this perception can be enhanced so that the learners can better evaluate their potential participation in economic activities through the application of literacy skills. It is suggested that the perception of the value of literacy is intrinsically connected to the learner's self-concept (self-concept includes the learner's appraisal of his/her appearance, background and origins, social group membership, sex and ability to learn). It is proposed that the learner can be aided to develop a realistic perception of opportunities by educators who understand the attitudes and skills needed to participate in these opportunities.

Assumptions and Attitudes About the Nature of Economic Opportunities

The following discussion about self-concept, perception and participation in economic opportunities is based on several assumptions about the nature of economic opportunities available to the majority of illiterate people in developing countries. An initial assumption is that employment opportunities change frequently due to technological change and fluctuations in national and world markets. Few individuals have the luxury of planning a "career" and planning on any salaried employment may be a futile exercise. A related assumption is that the most competitive individuals within this environment of fluctuating opportunities are those who can move from opportunity to opportunity. It is assumed that such persons have developed certain attitudes of self-assurance and acceptance of responsibility for their own lives which "...permit them to become active agents in their own career success."¹

While educators cannot be responsible for the economic conditions within their countries, they can be influential in helping the learners develop positive attitudes toward themselves, the learning of new skills and economic activities. The appropriate attitudes are often more valuable than the skill, since the acquisition of new skills may be continued throughout the learner's work life. Vocational educators throughout the world agree that it is essential to train for a range of skills rather than for a specific position, because most workers are forced to change jobs numerous times throughout their lifetimes. As Foster has argued in his study of vocational training in Ghana, "...total mobilization of the formal educational system in the direction of specific vocational training,"² will not result in mass employment in technical fields. Rather, the students graduated from any academic or vocational programs must float, struggle and live with an unpredictable job market. Often, they must be prepared to change careers or create their own employment in several different types of activities if they are to survive.

It is assumed then that the more individuals are able to transfer their skills to a variety of jobs, the more employable they will be. Literacy skills enable individuals to be more effective in most jobs and thus more employable in a wider range of jobs.

The educator cannot prevent the learners' personal interactions and work related experiences which are detrimental to the development of a positive self-concept, positive perception of literacy acquisition or potential employment in jobs that require literacy. Messages of sexual, ethnic or racial inferiority can be so strong, they discourage learners from making efforts to acquire literacy skills. Prohibitions against the employment of

women and members of certain castes, ethnic or racial groups can be so thorough they preclude participation in the majority of economic activities. In such situations there is little relationship between positive attitudes toward oneself and vocational development, since societal constraints dictate that no action can improve the vocational future of the "marked" group.

The educator is responsible, however, when individuals who are not experiencing these constraints fail to identify learning opportunities which would provide access to economic activities. An educator working in a program which integrates literacy instruction and vocational training has an implicit responsibility to help the learners make the connection between literacy skills and participation in future economic activities. This responsibility flows from the assumption of this chapter; learners who understand the connection between application of literacy skills and participation in economic activities will have a strong motive to acquire the requisite literacy skills.

Development of Self-Concept and Perception of Economic Opportunities

The mere presence of economic opportunities has not proven to be sufficient incentive for a significant number of the population to take the necessary intermediate steps to participate in the opportunities. The list of people contributing to an explanation of the "human factor" has been lengthy since "the Hawthorne Studies...cast doubt on the economic man assumptions suggesting that aspects of the whole human personality were more important than simple monetary incentive in stimulating productivity."³ As McClelland

suggests, "some human factor would seem to be necessary to explain the responsiveness of the few and the indifference of the many."⁴ McClelland has his own views as to why certain Third World individuals become entrepreneurs. Inkeles promotes an ethnocentric view of polar types, the traditional and the modern individual, as an explanation of why some take advantage of opportunities which others do not see. Maslow structured the drive to achieve in relationship to the satisfaction of basic needs.

Central to the study of motivation for acquiring literacy skills is an explanation of the process whereby people determine what is to their good. In this statement of task is the implication that each individual has the responsibility and the power to initiate and to choose. Some argue that individuals living in traditional societies must make certain breaks with their traditions and communities before they can determine what is to their own good. Inkeles and Smith present such a theory in Becoming Modern where they hold that as one becomes more "modern" one becomes more "adaptive" to what is called a "modern world." The "traditional mentality" is an obstacle to participation in the "universal, modern world." Inkeles and Smith praise this adaption:

Some of the men and women tied by the binding obligations of powerful extended kinship systems have sought to assert their rights as individuals. Some have tried to win more freedom of choice in residence, occupation, political affiliation, religious denomination, marriage partner, friend, and enemy. They have sought to replace a closed world, in which their lives tread the narrowest of circles, with a more open system offering more alternatives and less predestination. From desperate clinging to fixed ways of doing things, some have moved toward readiness for change. In place of fear of strangers and hostility to those very different from themselves, some have acquired more trust and more tolerance of human diversity. From rigidity and closed-mindedness, they have moved toward flexibility and cognitive openness.

They now seek to break out of passivity, fatalism, and the subordination of self to an immutable and inscrutable higher order, in order to become more active and effective, and to take charge of their individual lives and of their collective destiny.⁵

They posit that individuals must make these incredible breaks with the old in order to progress in the "modern" state. One can hardly ignore the values implicit in this position, nor the ethnocentrism.

What Inkeles and Smith see as laudable and necessary to participate in economic opportunities in the modern world, has been questioned by others who see the break with the traditional as unnecessary and damaging to the individual. Critchfield finds this modern world to be "depersonalized, atomized, unstable, secularized, blasé, rationalistic, highly differentiated, self-critical, time-oriented, 'other directed', and subject to sudden shifts in mood and fashion, trendiness and 'future shock' ... extremely high levels of self-awareness and self-absorption, which means, unlike most villagers, few people can be content with their lot."⁶ Even if one finds Critchfield's description overly critical, one cannot but question what or why the "traditional" individual must give up or change in order to understand what is to his/her benefit and, thus, to achieve a better standard of living.

Inkeles and Smith state the importance of their work as follows: "It seems to us there was no more relevant and challenging task for social psychology than to explain the process whereby people move from being traditional to becoming modern personalities."⁷ However, many argue that the more important question is, "whether the universal village culture (or individual behavior in two million villages, if you prefer) was capable of adjusting fairly quickly to the new technology."⁸ Or, whether a person

within an intact "traditional culture in a developing country can identify an opportunity and take advantage of it. McClelland and Winter present research evidence that the member of a traditional culture can, through training, take advantage of economic opportunities.⁹ They state:

...many of the obstacles to development are in the eye of the beholder, not in the psychology of the entrepreneurs involved. What does seem to be essential is that the man develop a strong faith in himself as an origin or agent of change, as someone who can solve problems efficaciously on his own. If he believes in himself, if he is motivated to change things, then he is undoubtedly an expert on how to carry out change within his social framework and within his traditional beliefs. The most effective strategy, in other words, appears to be to change the man's self-image by direct instruction on this key point, and then to leave the rest to him ... It seems far more effective to convince a man directly that he can accomplish what he wants, that he can become a change agent, and then trust him to find ways within his traditional culture of accomplishing his aims. Under these circumstances, the most touted traditionalist obstacles to development turn out to be less serious than most observers have claimed.¹⁰

What then, explains the process through which a person determines what is to his/her benefit? Central to an explanation is an understanding of how individual self-concept (identity), environment (culture) and behavior are mutually influential. Explanations or theories to explain how social affiliation and esteem influence perception and the resultant behavior are numerous. However, there appears to be agreement among several writers in the disciplines of psychology, anthropology, and sociology who suggest that:

- 1) the way a person conceives of him/her self or identity will affect his behavior and beliefs;
- 2) the concept of self is a prerequisite to human life or the conception of self is necessary to orient the individual to his/her environment and to others;
- 3) an individual's identity is formed and maintained in the course of interaction with others;

- 4) individuals need to have communicated to them by others information that confirms, validates, or reinforces their particular view of self; and
- 5) individuals are constantly striving to obtain from others confirmation of their view of self.¹¹

These writers argue that to understand human motivation toward any behavior, one must understand how self-concept or identity is formed. Each sees the identity as being formed through a series of interactions in which the individual struggles for definition of:

Self identity: the self as known to the individual;

Social identity: the conception a person has of others' view of him/her;

Public identity: the way others actually view him/her.

It is obvious that there can never be total consistency and the individual is constantly striving to be the self he/she would like to be and the self he/she thinks others perceive.¹²

There are various degrees of awareness of the forces influencing identity and various ways in which the individual can change and adapt to these forces. The concern here is the influence of these forces on the awareness of economic opportunities and the attitude toward the acquisition of skills needed to participate in these opportunities. It is possible that a specific level of awareness must be obtained before individuals can determine what is to their benefit vocationally and act upon it. For instance, Gibbons and Lohnes have identified eight variables which indicate "readiness for vocational training."¹³ They are:

- Variable 1. Awareness of personal characteristics -- abilities, interests, values -- in relation to curricular choices as well as the relationships of different curricula choices to occupational choices.
- Variable 2. Awareness of personal characteristics and educational requirements in relation to occupational choices.
- Variable 3. Ability to accurately identify personal strengths and weaknesses relating to educational and vocational choices.
- Variable 4. The accuracy of one's self-estimates of ability in comparison to levels of actual achievement.
- Variable 5. The evidence used by a person for self-appraisal.
- Variable 6. Awareness of interests and their relation to choice option.
- Variable 7. Awareness of values and their relation to occupational choices.
- Variable 8. Willingness to take responsibility for one's choice.¹⁴

Learners in all cultures, especially vocationally inexperienced youth, struggle with developing the awarenesses described. Some learners in some programs receive help through various forms of guidance and counselling. Peer counselling, rite of passage ceremonies, initiation groups, vocational counselling, job counselling, etc., are all forms of "identity work" through which the learners establish, what they can or cannot do to function in the world.

The educator within an integrated vocational/literacy training program should recognize his/her role in the "identity work" of learners. The greater support they receive in the exploration of their potentials, in adjusting

their self-concepts to correspond to literacy and to available opportunities, the greater will be their motivation to acquire literacy skills.

Enhancing Perception of Economic Opportunities

The second point of this chapter, that perception can be enhanced, is an observation on this widespread example of communally-directed "identity work." One does not have to look far for examples of ethnic groups that are "the traders," "the bankers," or "the farmers." In a relatively static, "traditional" society one can find children who are being prepared psychologically as well as vocationally to do the same work as their grandfathers. However, when individuals voluntarily present themselves for literacy and numeracy instruction they are often attempting the non-traditional, moving within an unaccustomed world and looking for opportunities on which to build a life. Continued attendance and active striving to acquire literacy skills depends on the fit between the learners' concept of who they are, what they can do and what to do, and what is required of them. A good instructional program should aid the learners in establishing this congruency.

The "developmental approach" to vocational counselling in the United States is an example of efforts to help learners establish a framework in which to identify and choose options, rather than counselling the learners to enter a specific job. This approach is based on the premise that self-concepts, personal opportunities and responsibilities change during a person's life-time and that vocational choice is a life-long process that is a "...constant compromising between wishes and possibilities. This synthesizing

and compromising process in turn defines and narrows the range of choices a particular individual is likely to consider."¹⁵

In a diversified and growing economy, major career changes throughout a lifetime have become expected. Within less industrialized, developing countries, movement within a cluster of vocationally similar positions has been the norm. As Kenneth King documented, young workers in the informal sector of Kenya's economy move through a remarkable array of unskilled and semi-skilled trades steadily acquiring new skills and testing alternative vocations. The relatively unschooled workers in the informal sector seem to demonstrate much more flexibility, entrepreneurial initiative and successful adaptation than their more schooled counterparts.¹⁶

Over a lifetime, individuals develop frameworks in which to make decisions. With the help of the frameworks, individuals determine how to maximize gain and minimize the chance of loss. It is possible that "...individuals can be helped to choose more rationally by predicting the outcomes of each alternative available as well as the uncertainty and risk each involved...it has become an accepted principle that the kind of information one has and the way he or she uses it will affect decision outcomes."¹⁷

Information is considered important to those who adhere to what has been the "Decision Theory Approach" to vocational choice. For instance, Bross suggests that the learners must develop a method for predicting, valuing and deciding on actions to be taken.¹⁸ Adequate information is the foremost requirement for those developing this rational approach to decision making.¹⁹ Evans and Herr put these requirements into perspective by stating that:

The individual's interpretation of different actions and outcomes present at a choice-point involves two other concepts typically included in decision approaches. First is the matter of risk-taking style. People differ in their willingness to cope with ambiguity or uncertainty of outcomes. Some people prefer the security of knowing what they will be paid and that they are likely to have a permanent position rather than the possibility of greater rewards and the unknowns of variety and tenuousness. Second is the matter of investment. Emphasized in this notion is the fact that any choice requires both tangible and intangible investments by the chooser, e.g., capital, prestige, time, tuition, union dues, deferred gratification, which can be deliberately considered and valued.²⁰

Summary

Self-concept, information and environmental reality appear to influence the learner's perception of opportunities and the need to acquire literacy skills to participate in these opportunities. It is proposed that with:

- 1) a realistic understanding of one's opportunities, (i.e., that in rural community "A", one has the potential of performing X, Y, Z functions if one is literate);
- 2) adequate information on opportunities, (i.e., that performing X function will provide a specified amount of cash income); and,
- 3) a realistic awareness of one's capacities to perform the required skills (i.e., that they can learn enough literacy skills to perform function X),

the learner will be able to decide on the appropriate amount of energy to put into acquiring literacy skills.

NOTES AND REFERENCES

¹Rupert N. Evans and Edwin L. Herr, Foundations of Vocational Education, (Columbus, Ohio: Charles E. Merrill Publishing Co., 1978), pp. 317-8.

²J. Foster, "The Vocational School Fallacy in Development Planning," Economics of Education, Vol. I, ed. Mark Blaug (New York: Penguin, 1968), p. 421.

³H.C. Kazanas, Effective Work Competencies for Vocational Education (Columbus, Ohio: ERIC Clearinghouse on Adult, Career and Vocational Education, The Ohio State University, 1978), p. 71.

⁴David C. McClelland and David G. Winter, Motivating Economic Achievement (New York: The Free Press, 1969), p. 6.

⁵Alex Inkeles and David H. Smith, Becoming Modern (Cambridge, Massachusetts: Harvard Press, 1974), pp. 4-5.

⁶Richard Critchfield, "Revolution of the Village," Human Behavior (May 1979): 21.

⁷Inkeles and Smith, op. cit., p. 5.

⁸Critchfield, op. cit., p. 21.

⁹McClelland, op. cit., p. 349.

¹⁰Ibid., pp. 349-50.

¹¹Richard H. Robbin's synthesis of the work of Erik Erikson, Carl Rogers, Harry Stack Sullivan, Charles H. Cooley, George Herbert Mead, Erving Goffman, Anthony Wallace and Raymond D. Fogelson in "Identity, Culture, and Behavior," Handbook of Social and Cultural Anthropology, ed. John J. Honigman (Chicago: Rand McNally and Company, 1973), p. 1202.

¹²Ibid., p. 1205.

¹³W.D. Bribbons and P.R. Lohnes, Emerging Careers (New York: Teachers College Press, Columbia University, 1968). As paraphrased by Rupert N. Evans and Edwin L. Herr, Foundations of Vocational Education, (Columbus, Ohio: Charles E. Merrill Publishing Company, 1978), p. 161.

¹⁴Ibid., pp. 161-2.

¹⁵E. Ginzberg, et al., Occupational Choice: An Approach to a General Theory (New York: Columbia University Press, 1951). As paraphrased by Rupert N. Evans and Edwin L. Herr, Foundations of Vocational Education, (Columbus, Ohio: Charles E. Merrill Publishing Company, 1978), p. 159.

¹⁶General conclusions of Kenneth King, The African Artisan: A Study of Training, Technology and the Information Sector in Kenya (Edinburg: Centre of African Studies, University of Edinburg, 1975).

¹⁷J.R. Hills, "Decision Theory and College Choice," Personnel and Guidance Journal 43 (1964): 17-22. As paraphrased by Rupert N. Evans and Edwin L. Herr, Foundations of Vocational Education, (Columbus, Ohio: Charles E. Merrill Publishing Co., 1978), pp. 153-4.

¹⁸I.D. Bross, Design for Decision (New York: MacMillan Company, 1953). As paraphrased by Rupert N. Evans and Edwin L. Herr, Foundations of Vocational Education, (Columbus, Ohio: Charles E. Merrill Publishing Co., 1978), pp. 153-4.

¹⁹B. Clarke, H.B. Gelatt, and L. Levine, "A Decision-Making Paradigm for Local Guidance Research," Personnel and Guidance Journal 44 (1965): 40-51. As paraphrased by Rupert N. Evans and Edwin L. Herr, Foundations of Vocational Education, (Columbus, Ohio: Charles E. Merrill Publishing Co., 1978), p. 154.

²⁰Evans and Herr, op. cit., p. 154.

CHAPTER SIX

THE INSTRUCTIONAL PROGRAM AND THE LEARNER'S OCCUPATIONAL PERCEPTION

The two points developed in this chapter are: 1) the presence of a literacy program in the learner's environment is an influence on his/her motivation to acquire literacy skills; and 2) certain instructional methods, approaches and information within the program will enhance the learner's motivation to improve literacy skills. In Chapter V, the argument was developed that the relationship between a learner's self-concept and the available economic opportunities will influence the effort to acquire the literacy skills necessary to participate in the opportunities. To continue this theme, discussion centers on instructional approaches that aid the learner in 1) assessing economic opportunities; 2) understanding what is needed to participate in those opportunities; and 3) understanding the capacities to perform the skills required for participation. It is proposed that this assistance to the learner can best be provided through program content which focuses on immediate economic activities and through instructional methods and materials which facilitate the learner's personal involvement in the exploration of economic activities.

Presence of an Appropriate Instructional Program

The first point -- that the presence of an adult instructional program is a variable which impacts on motivation to acquire literacy skills - may appear to be obvious, but deserves comment. Individuals who cross mountains, walking for hours to attend literacy classes, are constant testimony to the excitement and power that reading and writing hold for the learner. However, each individual who perseveres regardless of such physical obstacles often has left behind a village of several hundred adults with heavy responsibilities, many of whom do not or cannot participate. A literacy class in the village, or even within a half-hour walk, would reduce the cost of attending and thus would become a persuasive variable in the decision to acquire literacy skills for the other villagers who could not or would not climb the mountain to attend.

Motivation to attend the most accessible program rapidly diminishes however, when the potential learners feel that the program is not providing the instruction they need. This satisfaction or dissatisfaction is related to, among other factors, the instructional content and level of the program. Learners who enroll in instructional programs, enticed by expectations of increased economic benefits through the application of literacy skills, will assess the level and type of instruction and determine if participation will provide access to opportunities in their environment. The clearer the connection is between literacy instruction and economic participation, the more compelling will be the learners' drive to complete the course of instruction.

One program in which this connection is made is conducted at the YMCA Craft Training Centre in Shawi Moyo, Kenya. Immediately upon graduation, program participants have secured salaried positions or become involved in lucrative income generating activities. As a result, the program has 400 applicants for the 32 positions provided each year. Fewer than 5% have dropped out of the three year program in the nine years of the Centre's operation. Literacy instruction at the Centre is integral to the vocational training and consists of classes (at about the 8th grade level) in English communication skills and mathematics.¹ The Centre's successes are closely tied to its ability to train the participants for specific positions in the expanding crafts and building trades in Kenya. The participants' perseverance in literacy skills building is related to their awareness that they need those skills to pass trade entrance examinations and as independent entrepreneurs to perform specific tasks such as advertising, selling and contracting.

The Centre is one of many programs which integrates vocational training and literacy instruction to prepare the learners for economic activities within their environment. The environments vary dramatically, as do the students and the capacities of the programs to provide appropriate vocational and/or literacy instruction. Some programs have learners with considerable formal education, have capacity and time to provide high levels of literacy instruction and have a direct connection to available salaried positions. Other programs have learners who have had little or no exposure to a written language, have little capacity or time to provide instruction beyond the primer stage of literacy and are located in environments in which subsistence activities dominate the economy.

An example of this second type of program is the Christian Development Education Program (CDEP) in Kenya. The directors of the program facilitate the information of rural community groups in areas of Kenya where "vernacular" languages are spoken and English and often Swahili (the business and national languages) are unknown. Few books are available in the "vernacular" language and literacy rarely develops beyond the word recognition stage. In this environment, literacy classes become a way "...of developing an awareness of life situations ... a means of getting people to discuss and move toward resolution of communal problems."² Significantly, the CDEP builds on objectives and motivations not always directly linked to economic functioning. Rather, the CDEP develops pre-literacy skills (and possibly pre-economic skills) by working on group attitudes and concepts and by introducing reading, writing, and arithmetic.

Both programs serve a vital function in Kenya's five year program to develop mass literacy. Both serve a specific learner by providing a structure in which literacy skills can be developed. The very presence of the CDEP in a village and the Centre, which draws participants from throughout the country in Kenya, causes the learners to strive to acquire new levels of literacy; without the programs, the learners may never have conceived of the need or possibility of acquiring the knowledge and skills presented in the programs.

Integrated Literacy/Vocational Programs

The focus of the LOFE Project has been on adult instructional programs which combine literacy instruction and skills training to develop skills which are usable (saleable) in the learner's immediate environment. Before discussing instructional approaches in these programs, it is important to clarify some of the difficulties and assumptions involved in the implementation of such programs. Combining literacy instruction and vocational training is a more demanding prospect than presenting only one or the other. Instructors must often receive additional training, new texts are almost always required and instructional time is rarely increased commensurate with the added curriculum.

Implementation becomes more difficult when a program requires that instruction be connected to salaried employment or participation in economic activities. Program planners and developers must analyze the job market and/or determine the requirements of participation in economic activities. The task is further complicated when such programs are attempted in rural

areas where much of the production is non-remunerated. The instructor's task becomes one of promoting increased production even though there may be little immediate reward (cash) for such increase.

Problems are compounded when the program planners attempt to coordinate their programs with the development goals of the national plan. Program planners, thus, must evaluate whether such goals are realistic and whether program participants will value these goals as well. Again, a rural population working in subsistence activities may have little motivation to increase their production to fulfill the seemingly abstract goals of the national plan.

There are significant differences between vocational/literacy programs in urban areas and work-oriented literacy programs in rural areas. Educational strategies to emphasize economic incentives to affect motivation to acquire literacy in each setting must reflect these differences. As has been suggested in previous chapters, the more immediate the economic incentive is to realization, the more powerful it is as a motivational element in the behavior of the individual. In urban areas, this immediacy can be more readily achieved because of cash acquisition through salaried employment. In rural areas, the program must often be built on savings, conservation, or budgeting, which are not as dramatic or apparent as a cash increase. Increased production, savings or budgeting are long term propositions and often fail to hold the immediacy that makes an incentive strong.

A rural producer may not have much opportunity for increasing production, particularly where land and water are limited. However, a farmer can improve economically by being as efficient as possible in using available resources, time, technology and marketing strategies. The challenge for the literacy

program planner is to connect the literacy training to the kinds of information and to the decision-making skills which the rural producer needs to have in order to be somewhat more efficient and productive.

Learner-Involvement in Integrated Literacy/Vocational Programs

Economic incentives have been and will continue to be influential for motivated learners in all environments. However, most integrated literacy/vocational programs must work with the learners to help them understand economic opportunities in relation to themselves, their literacy skills and their potential participation. This entails working on self-confidence and awareness of work options. It requires that learners become active agents in exploring economic opportunities within their own communities. Learners must examine their values, the risks they are willing to take and the benefits they wish to achieve. Such examination and assessment are difficult to facilitate without a large degree of learner-involvement in the instructional program.

Learner-involvement is important because it increases the participants' feelings of control (and thus, self-worth) and ensures a better "fit" between the instructional program and the learners' needs. Programs which will motivate and assist people who have little feeling of control over their environments and opportunities must develop from within the learner an understanding that control is possible. Top-down programming, lecturing and pre-established curricula cannot give this feeling of control. Also, the most effective way of ensuring that programs are appropriately designed for learners attempting to effect changes in their opportunities is to ensure that those individuals are directly involved.

The success of programs which stress learner-involvement however, depends on the program staff's sophistication in group dynamics and individual counselling skills as well as their ability to provide accurate instruction in technical and academic skills. Such abilities are not always present and compromise is often necessary between the ideal and that which is feasible.

In the following discussion of instructional methods and materials and formative evaluation, critical points for increasing learner-involvement are noted. It is the assumption that such involvement is preferable, but not always possible.

Instructional Approaches in Integrated Literacy/Vocational Programs

An instructional strategy which emphasizes economic reasons for acquiring literacy skills in any environment must aid the learners to connect literacy skills to an economic opportunity - be it improved efficiency in non-remunerated activities or improved access to salaried positions. The learners can be helped to gain this understanding by program personnel who:

- elaborate a course content with the learners which emphasizes the connection;
- use instructional methods and materials which allow the learners to explore the connection; and
- maintain a continual internal monitoring process - formative evaluation - to determine the learners' reaction to the program.

Establishing Program Content

Establishing a course content which will aid the learners to see the connection between literacy skills and economic activities implies a procedure through which the program planner and/or learners can 1) determine if there are connections, and 2) identify which economic activities require what level

of literacy skills for effective participation. In diversified economies, the task is to describe the nature and number of employment opportunities and the level of literacy skills needed to participate in them. The content of the literacy course then becomes the concepts needed to work in the described activities and the vocabulary becomes those words needed on the job. However, in other environments, the mere identification of economic activities often requires the skill of an entrepreneur who sees the potential rather than the actual opportunities.

Procedures for establishing course content for literacy/vocational training programs have received extensive attention. The procedures appear to be on a continuum. At one extreme are designs which require the use of outside experts to conduct "technical manpower" studies and coordinate with national development plans. For example, a Unesco document published in 1970 suggests that a team of experts travel to the site and spend the requisite time there inventorying the economic, technico-occupational and socio-economic objectives of the national plans, developing monographs on the agricultural and "industrial milieu" and "radiographic" studies of the students and their training needs.³

At the other extreme of the continuum are those who propose that the appropriate content can best be developed through "...a series of negotiations between learners and teachers,"⁴ in which they assess problems in the environment and determine what is required to solve them. This design presents an endogenous process, i.e., development generated from within communities, and differs radically from the top-down Unesco design mentioned above in which designated experts dictate the content. The second design puts

trust in the learners and instructors, perhaps the only choice in many programs given the low funding levels and scarcity of technical assistance.

Much could be said about the advantages and disadvantages of each procedure. The Unesco procedure integrates the program with the national plans. The experts arrive fully trained in manpower analysis and methods of identifying those economic incentives that the international education community has determined to be important. However, the use of such experts is expensive and implies external funding. In addition, critics point out that the expert team can never be on site long enough to thoroughly understand the needs of the people.

The second procedure insures that a more intimate instructor-learner relationship will be developed and that the learners have the opportunity to influence the design of the program. Instructors have greater freedom to tailor the instructional content to the needs of the learners. This freedom is both the strength and the weakness of the program. The instructors are often poorly trained, often volunteers and are often desirous of more guidance, not less. Instructors can be trained to do needs assessments, but are often at a loss as to how to establish an instructional content that will meet these needs. And, instructors cannot be technically accurate in all subjects that the learners identify as needed.

Again, these two examples are on two ends of a continuum and there are several alternative procedures in between. Program planners must make their choices on the basis of who is to secure the information on which the program content will be established and how.

The important consideration is to develop procedures that are manageable by program personnel or learners. The procedure must help program personnel establish a content which:

- builds upon economic opportunities present in the learners' environment;
- corresponds to the level of literacy required by persons participating in the economic opportunities; and
- aids the learners in understanding that their efficiency in economic activities can be improved through new levels of literacy.

Instructional Methods and Materials

Instructional methods which involve the learners in structuring the program can be essential to increasing the learners' motivation to acquire new literacy skills. Such involvement can lead to the learners' examination of their values, their self-concepts, and their potential participation in economic opportunities. The learners' favorable assessment of their potential for participation in desirable economic activities is a major element in the learners' motivation to acquire literacy. However, proclaiming the establishment of a learner-directed program does not ensure success if the characteristics of the learners and instructors have not been taken into account.

Instructors and learners must be comfortable with the instructional methods before such methods can be termed appropriate. Often methods and materials which involve the learners in the design of their own programs and the monitoring of their own progress are effective. It is also important to be aware that many instructors were trained to function in hierarchical

settings and have little affinity for learner-involvement strategies. Also, many learners do not have a communal tradition of individual participation. The move to involve the learners may not be understood and ultimately may be rejected by both instructors and learners.⁵

When such "participatory" methods seem appropriate, the idea would be to locate personnel with the personality and skills to facilitate this participation. However, few programs have the capability to pick and choose their staff. Low budgets often dictate that volunteers be used. Political considerations often demand that formally trained school teachers be employed regardless of their feelings toward increased participation of the learners. The question then is rarely who to use as instructors, but rather how to train the staff that one has.

The first step then in developing an instructional method, is determining what the learners and instructors expect in terms of their own performances. The idea that the "ignorant" should have anything to contribute to their own education is an alien concept to many educators in most societies. The instructors and the learners have to develop confidence in the ideas and comfort with the methods -- efforts which may require considerable time and training.

The following chart ⁶ from Perspectives on Nonformal Adult Learning by Lyra Srinivasan contrasts the differences in philosophy and instructional methods of two approaches. While both approaches encourage learner-involvement, the self-actualizing approach requires greater learner self-direction. The Chart is reproduced here to illustrate the degree of learner involvement that has been achieved and is desirable to enhance the learners' motivation.

**PROBLEM-CENTERED
APPROACH**

**SELF-ACTUALIZING
APPROACH**

Basic curriculum strategy:

Approaching the learning situation as primarily an intellectual, rational cognitive process.

Designing learning situations that involve the learner emotionally as well as intellectually so as to touch the learner's deepest value base and self-concept.

Determining content:

Identifying the appropriate subject matter for the curriculum through a short-term formal baseline study of local communities and combining it with the priorities of the technical or service agencies.

Involving the learning group in developing its own curriculum with both local and national priorities in mind, using baseline study as point of reference.

Designing the learning experience:

Building each learning unit around a problem in the external environment and conducting the lesson in a manner that will develop practical problem-solving skills.

Planning each learning experience in a way that provides learners with opportunities to reassess their feelings about themselves and about others, to exercise creativity, and to experience new roles in the course of solving practical problems.

Defining curriculum structure and flow:

Prepackaging the curriculum learning units with defined sequences, learning aids, and teaching guides; providing an adaptable but highly structured curriculum.

Predetermining only the bare materials needed to encourage and support an active learning role by the group. Sequence is determined by learners' interests and readiness for action.

Developing appropriate learning materials:

Drawing heavily from a wide variety of available materials but relying heavily on standardized printed materials as the main vehicle for stimulating group discussion around a preselected problem.

Utilizing a variety of materials with greater emphasis on those not dependent on literacy skills, such as audio-visual aids, role-playing, critical incidents, simulation games, etc., which arouse consciousness of self in relation to problems.

Teaching literacy:

Using a programmed text from which to teach literacy skills as a relatively precise science.

Using the group's spontaneous communications as the basis for instruction in literacy as an expressive art.

Training the group leader:

Training of teacher or leaders emphasizes learning how to conduct group discussions and to help learners master the programmed text as a reinforcement to problem-solving skills.

Using participatory techniques to train group leaders or village workers to involve people in learning experiences which include group discussion, and other expressive techniques in support of problem-solving and personal growth.

Evaluating the learning experience:

Assessing progress primarily on the basis of learning gains and attitudinal change as indicated by objective tests and teachers' observations.

Assessing personal growth and learning gains through observation and detailed analysis of the process that has taken place in the group: the role played by individuals, the nature of their interventions, relative role of teacher and learners, the basis for decisions, and the technical validity of their plans for future action.

The major emphasis in the self-actualizing approach is the development of the learner self-awareness as a group member and as an independent actor. It is the same goal most integrated skills training programs strive toward and appears to be the best method to be used. Unfortunately, it may be the most difficult method for most instructors to use.

Instructional materials can aid the instructors and learners to become comfortable with the goal and methods of learner-involvement in educational programming. Materials that contain information, descriptions of group dynamic activities and procedures the learners can conduct in order to explore their own economic opportunities, can aid the instructor to pull together all

the pieces of the integrated skills/literacy program in which learner involvement is emphasized.

Again the "appropriateness" of this material is determined by the instructors and learners who will use it. For instance, an eighteen-year-old instructor usually has the handicaps of having little experience working with adults, and lacking technical expertise in the required vocational skills. Materials can aid the instructor to establish a mature relationship with the adult learners and can provide guidance in teaching the vocational skills. The Radiofonicas Program operating out of Choluteca, Honduras provides a high level of guidance to its volunteer instructors through its nightly radio broadcast. The broadcast lessons establish an environment of respect between the learners and instructors and suggest points at which the instructors should give individual help. The instructional material could be viewed as almost dictatorial, unless one considers that the instructors usually have no more than four years of formal education, are usually between 16-22 and are expected to teach new farming methods as well as literacy. The instructors are actually being trained through the use of the materials. The success of the process can be seen in the number of instructors or facilitators who are able - after working with the materials - to stand on their own and facilitate group discussions around complex issues.

Other instructors will have had more formal training and more instructional experience and possibly a greater resistance to learner involvement. Materials which continually provide suggestions on how to increase learner involvement can aid the instructors to gradually assess the value of greater learner participation.

Monitoring the Program: Formative Evaluation

The "right" content, instructional method and materials are only right when they meet the needs of instructors and learners of each program. However, the needs of both are continually evolving and their satisfaction must be continually monitored. A process of formative evaluation will enable all involved - the learners, the instructors, the program administrators - to determine how well the program is preparing the learners psychologically, as well as technically to locate and participate in existing economic opportunities.

The present literature on formative evaluation provides many statements of principle or theory on the need for such monitoring and the need for learner participation in the process. One important consideration is that the motivations as well as the circumstances of adults are very situation-specific and easily misunderstood or overlooked by program sponsors. The most effective way of insuring that programs are appropriately designed for individuals attempting to bring about changes in their lives, is to insure that those individuals are directly involved. Further, there appears to be motivational importance in the degree to which participants feel that they control or "own" the program. It is important to remember that programs will be attended by people who have in most cases had little feeling of control over their environments and opportunities, and have probably had other experiences with programs which promised, but failed, to improve their opportunities.

A second reason is a practical one. Most adult literacy programs are poorly funded, with staff who are poorly paid if they are paid at all, and there is simply neither the time nor the resources to conduct the data

collection and rigorously controlled assessment which more formal evaluation techniques require. Formative evaluation methods must be easily implemented by the kinds of people likely to be administering and implementing community programs. As Noreen Clark and James McCafferty conclude:

Those who work in community settings know that rigorous research designs are neither desirable nor possible in conducting village evaluation. The program staff member can use only those data collection techniques that fit the particular area in question and are acceptable to the people involved. Precise methodology and cumbersome assessment procedures must be retired in favor of more unobtrusive and less disruptive techniques. To be effective, evaluation steps must be easy to initiate and conduct, otherwise program staff will be unlikely to accept them as an ongoing part of their regular responsibility.⁷

This view is increasingly shared by evaluators, particularly by those working with nonformal education approaches. For example, David Kinsey argues that the development of less formal, more formative approaches is still in a very preliminary stage and that there are as yet few well-tested models:

... concerted attention must be given to the development of evaluation options that can more feasibly and usefully be employed by practitioners themselves. With greater practitioner ownership of an evaluation process, the possibility that the focus will be on problem areas or objectives that are considered to be most pressing by front-line program people is increased, and the likelihood that the feelings will actually be used in immediate program improvement is greater ... (however) if evaluation by practitioners is to be more viable, there have to be methodological options that are more carefully geared to formative purposes and nonformal education settings. These options have to be simple enough for use by minimally trained practitioners with limited time while being capable of yielding results that are at least more sound and useful than those derived from casual observation.⁸

These principles or considerations are useful, but give little guidance as to how to develop such an evaluation procedure for the types of integrated skills/literacy programs discussed here. However, such a design is necessary if the complex coordination needed to establish the appropriate content, instructional method and material is to take place.

An evaluation process should be developed which involves the learners, the instructors and the program administrators in the assessment of the following:

1. The learner should be responsible for:

- the acquisition of a specified level of skills;
- pursuit of employment or exploration of income-producing activities;
- evaluation of other elements of the program at the request of the instructor or program administrator.

2. The instructor should be responsible for:

- developing skills and attitudes for teaching adults and a varied curriculum;
- requesting constructive evaluation from the learner and the program administrator;
- assessing the appropriate skills to be taught and levels to be obtained with the learner.

3. The program administrator should be responsible for:

- determining if the skills instruction offered is timely and appropriate;
- developing appropriate in-service training for the instructors;
- assessing the level of the students' skills achievement;
- designing and implementing follow-up activities.

NOTES AND REFERENCES

¹From interviews with Joel Kinagwi and YMCA Crafts Training Centre staff, November 22, 1979 - November 23, 1979, Nairobi, Kenya.

²From interviews with Valentine de Souza, Christian Development Education Program, November 23, 1979, Nairobi, Kenya.

³Unesco, Practical Guide to Functional Literacy (Paris: Unesco, 1970), pp. 15-31.

⁴Helen Callaway, "Learner-centered Innovations in Literacy Work," In A Turning Point for Literacy, ed. Leon Bataille. (Oxford: Pergamon Press, 1976), p. 184.

⁵See discussion presented by Paul Jurmo, "Participation: Do Villagers Really Want It?" World Education Reports No. 21 (March 1980):20-22.

⁶Lyra Srinivasan, Perspectives on Nonformal Adult Learning (New York: World Education, 1977), pp. 72-74.

⁷Noreen Clark and James McCafferty, Demystifying Evaluation (New York: World Education, 1979), p. 5.

⁸David Kinsey, Evaluation in Nonformal Education (Amherst, Massachusetts: Center for International Education, 1979), pp. 6-7.

CHAPTER SEVEN

CONCLUSIONS AND RECOMMENDATIONS

This chapter presents conclusions and recommendations drawn from research undertaken through the Literacy-Oriented Functional Education (LOFE) Project over the past three years. Discussion first centers on major issues surrounding economic incentives and motivation for literacy before moving to a presentation of LOFE Project conclusions and a set of recommendations for future program planning.

Economic Incentives and Motivation for Literacy: Major Issues

The major issues in an approach to literacy programming linked with economic improvement arise from the desire to maximize motivation--the motivation of small scale entrepreneurs to participate in literacy and practical skills training programs, the motivation to take valuable time away from their daily business concerns and problems, and the motivation to apply new business-related information to the daily management of their economic activities. Motivation, when thus viewed, depends heavily on the economic value accorded by the learner to the literacy skills being taught and the immediate relevancy of those skills to one's current economic situation.

From past literacy programming and research, we know a number of things about motivation. Studies and experience show that:

- literacy skills have a different utility in differing contexts and are usually valued for more than one reason;
- it is often difficult to distinguish between the value of acquiring literacy skills and the value attached to having completed a literacy program; thus the value of literacy is both objectively determined and subjectively perceived;
- motivation to acquire new literacy skills is often linked with the motivation to pursue new economic activities; and

- increased self-confidence, self-reliance and independence are prominently mentioned by new literates among the values associated with the acquisition of literacy skills.

Economic Incentives and Motivation for Literacy: Conclusions

1. Literacy has value in reference to desired economic results. A crucial factor impinging on motivation for literacy centers on the issues of how and by whom the desired economic results of a learning activity are identified. There is considerable agreement among planners and practitioners that literacy programs should be planned on the basis of what participants actually want rather than on what program planners and specialists think participants should want. In reality, though, past action has kept pace with rhetoric. The LOFE Project offered entrepreneurs with low level literacy skills the opportunity to be involved in defining the desired economic results of literacy instruction. Program planners then had a first hand expression of what was "wanted." Through participatory approaches like those used in the LOFE Project linkages between the literacy skills to be acquired and the entrepreneurs' immediate economic activity were delineated for all involved. Awareness of this linkage, as defined by participants, facilitated the design of relevant and realistic training programs.

2. The economic value of literacy skills depends on the applicability and relevancy of those skills to specific and immediate tasks related to the entrepreneurial activity. Findings from the two sites suggest that economic incentives play an important role in motivating individuals to acquire new literacy skills through participation in training activities. This observation was particularly true in situations where participants identified and

experienced opportunities for immediate economic returns from their participation. Perceived economic benefits associated with participation included not only increases in profit but also the physical expansion of one's business, diversification of inventory or scope of work and access to credit.

Interest was greatest in those training exercises where participants could identify the immediate opportunity context for using their new literacy skills. Small businessowners are often caught up in survival issues which preclude their examination of small adjustments which might significantly benefit their businesses. In both LOFE sites, performance was higher on reading, writing and numeracy tasks which involved the practical application of new vocabulary and concepts to immediate economic activities than in those exercises which were more theoretical in nature. This was especially so for exercises which demonstrated the immediate or direct economic payoffs to be derived from applying the new concepts.

For example, when a seamstress could identify an existing opportunity where literacy skills would lead to her immediate economic betterment, literacy acquired a new economic value. Keeping records of clients' measurements, assembling self-copied patterns and directions into a pattern book, noting deposits on orders and being able to read simple pattern directions were all skill areas where literacy enhanced a seamstress' economic viability, and had very real economic payoffs.

3. The economic value of literacy is also apparent when it increases opportunities or helps small businessowners and informal sector producers overcome constraints which they perceive in their personal context. The exploration of economic activities in the immediate environment, the determi-

nation of the requisite literacy skills needed to take fuller advantage of existing economic opportunities, and the analysis of group potential (Ecuador site) allowed participants an opportunity to evaluate their current capabilities as well as their future potential in both physical and material terms. The development of an awareness of how new levels of literacy related to economic activities in the immediate environment and subsequent action taken by participants (and the organization providing the training) constituted one of the significant achievements of training conducted as part of the LOFE Project.

This increased perception of being able to use literacy skills to overcome constraints in their personal economic context appeared to be linked to past training experiences and current practice of innovative behaviors. Participants with past educational or training experiences were more receptive to both training content and processes. They also exhibited a greater willingness to take the risks involved in instituting change. Similarly, those businessowners and co-operative members already exhibiting other innovative behaviors were the most receptive to and adept at acquiring new literacy skills necessary for improving their businesses.

There was, for example, no substitute for knowing where and how to gain access to technical information on raising laying hens, understanding co-operative incorporation laws and being able to draw up simple contracts for the delivery of chicken mash and later for the transport of eggs to selling points for the members of a rural co-operative. The identification of these literacy skills helped them deal with business management issues previously viewed as constraints to that specific economic undertaking.

4. There is demonstrable economic value to being literate when it can be shown that the acquisition of literacy skills increases the likelihood of direct economic gains by the individual. A key assumption is that the economic value is received directly by the individual who has acquired the literacy skills. When former participants or other literate community members serve as resource people or trainers working directly with participants in their exploration of a particular economic activity and in the identification of the benefits to be derived from participation in literacy or practical skills training programs, current participants see through the example of others how literacy skills can benefit them. For many entrepreneurs and co-operative members, the personal stake in participating in literacy training programs is knowing first hand that the skills being learned are first practical, and second, that they can be put to use for their own economic benefit and not necessarily for that of the factory or shop owner.

In both LOFE field sites, it was observed that the more immediate the economic payoffs were for participation, the greater was the interest in identifying and applying the literacy skills necessary for improving one's enterprise. Those educational activities which combined an emphasis on improved production (technical content) with management of that production (literacy) were identified by participants as those which were most useful and of immediate application to their daily work.

Project findings support past research on the crucial element of immediacy of the economic goal as a motivating factor. For those participants already involved in an economic activity, the training appears to have contri-

buted to an increased perception of the relationships between their immediate economic activity and the need for specific types of literacy skills to improve the economic activity.

5. The economic value which entrepreneurs accord to literacy skills is linked to instructional activities which emphasize immediate opportunities for practicing those skills. The LOFE experience in planning literacy and practical skills training programs for, and with, small entrepreneurs and informal sector producers clearly demonstrated the value to be derived from developing instructional programs which:

- provided participants with the opportunity to determine for themselves that literacy is of economic value to them;
- required that participants explore a full range of ways in which the economic values of literacy can be expressed;
- actively involved participants in identifying the literacy skills necessary for improving and participating more fully in existing economic activities; and
- fostered critical skills of predicting, valuing and deciding what actions must be taken.

Implicit in the development of such an instructional program was an interest in participatory training and learning methodologies which permitted the facilitator and the participants to work jointly on the design and development of specific educational activities.

Considerable effort in the Tunisian and Ecuadorian experiences went into developing training exercises designed to help entrepreneurs explore options, or the economic "room," for attempting change, for applying their new literacy skills, and for examining new economic opportunities. Experimentation showed that program offerings could contribute to participants' understandings of the costs--time, money and risks--inherent in participating in literacy or practical skills training programs. Through specific exercises,

LOFE staff learned that it was necessary to show that costs in time were more than just the time invested in obtaining the new skills; costs in time included the time until benefits would be realized from the application of the skill as well as the time over which the benefits continue to be received. Other exercises explored the risks involved in participation. At each choice or decision point in the training, specific risks were discussed, alternatives were evaluated and informed decisions were made.

In summary, literacy skills developed by participants were the ones they identified as integral to the accomplishment of the economic tasks at hand. Experience showed that if the skills were not so perceived, and so presented, they held little of interest for people whose days are filled with "reading the real world" and who, as a result, had little time or motivation for reading a traditional literacy primer.

Economic Incentives and Motivation for Literacy: Recommendations

1. If small enterprise development is to remain a development agenda, further study of the literacy needs of small enterprise owners and managers is necessary. Given the Agency's interest in small and medium enterprise development, it would seem appropriate to study further the link between literacy skills and business management issues faced by small enterprise owners. For example, are there literacy and numeracy skills which are applicable across a wide range of informal sector occupations? Or, are skills situation or occupation specific? What methods are the most effective for identifying the needed skills? Can literacy and numeracy instruction be

integrated into traditional skill acquisition mechanisms such as apprenticeship programs?

Subsistence producers and economically marginal workers have little leeway for risk taking, change or innovation--each a frequently cited characteristic of successful entrepreneurial types. Their human resources, time and money are often limited. They have only marginal access to information as well as to credit and technical assistance. By enhancing the ability of individual entrepreneurs to identify options, to assess risks, to reduce those risks and acquire business-related information or vital technical assistance, literacy programs can and do become more responsive to the immediate, and indeed, the expressed needs of individuals and production groups who constitute the bulk of the informal sector in Third World economies.

2. Future program attempts to integrate literacy with practical skills training should be collaborative undertakings which place greater emphasis on the learner as the major informant. Learner-based content and methods are now widely accepted theory, and yet they are gradually becoming rare in practice. Training which respects and builds upon participants' existing store of knowledge contributes significantly to the development of self-concept and self-confidence. Prescription prior to diagnosis is a common feature of many existing programs and should be avoided.

3. Approaches to integrating literacy with practical skills training must reflect learner needs and local realities. While an informal learning process based on observation then participation may well be adequate for learning the practical skills of a trade, technical information on business

management issues would appear to be best transferred through active inquiry and analysis of the specific tasks which require literacy.

Two elements appear crucial in increasing learner motivation to acquire new levels of literacy:

- an emphasis in each of the activities on learner involvement in the examination of economic opportunities; and
- the learners' exploration and identification of the specific literacy skills to participate in existing economic activities.

This instructional focus constitutes a proven approach to assisting the learner in making the connections between immediate economic opportunities and resultant gains and the levels of literacy required to participate in those opportunities.

Training materials should be structured around participatory instructional strategies which encourage greater reliance on program participants as technical resource people with learners being both object and subject of training activities which focus on:

- the enhancement of the learner's self-concept;
- an analysis of immediate economic opportunities;
- identification of the literacy levels required for participation in the immediate economic opportunities under study; and
- increased initiative, participation and use of individual and collective resources.

Additional research might best focus on methods which help small sector producers to examine what they already know and manipulate that knowledge to create new knowledge about business management issues.

4. Emphasis should be placed on literacy training which first develops oral language skills related to technical content. Attention to the oracy-to-

literacy sequence allows for the introduction of new vocabulary and concepts without overburdening participants with the development of oral and literacy skills at the same moment. In the LOFE Project, the development of oracy skills on accounting and business management issues contributed to a greater sense of participant self-confidence in approaching reading and writing tasks. Additional research is needed on how existing or "old" knowledge is used to acquire "new" knowledge by both oracy and literacy skills as well as on specific learning approaches which allow for the practice, drill, study and time for assimilation and accomodation processes which contribute to the growth of cognitive structures. This may not be possible in programs of short duration.

5. Increased emphasis should be placed on the development of written numeracy skills in training programs for small enterprise owners. If new concepts are to be applied to the improvement of existing economic activities, numeracy skills are central. The application of accounting and inventory management practices in particular depend on participants correctly carrying out simple mathematical operations. The LOFE experience showed that considerable time was necessary for making the transition from traditionally performed to written mathematical operations.

6. Sufficient time must be allocated for instituting innovative programs which differ significantly from existing practice. Participatory training strategies take time, not only in their implementation but in developing both trainer and participant ability to become involved in a new approach to adult learning. Likewise, the participatory development of training materials has implications for participant motivation and program

success. While training materials structured to encourage the active exploration of participants' immediate economic activities should be geared to the identification of the requisite literacy skills needed by small business-owners, they must also reflect goals which are both realistic and attainable in short periods of time.

7. Additional practical research is needed to determine the appropriate mix of practical skills training, literacy training and follow-up activities. Business advice and literacy training can and do make a difference for small businessowners, even when training is short-term in nature. Although certain business management skills such as accounting may be applicable across a wide range of occupations, others such as inventory management are occupation-specific. Follow-up activities, especially visits to business concerns, offer trainers and participants the opportunity to evaluate implementation of training information and to identify other necessary technical assistance.

8. Literacy-oriented training for small businessowners should be short-term in nature. With suitable motivation, the majority of adults can achieve new levels of literacy in a relatively short period of time. Small businessowners can rarely spend long periods of time away from their business as absence quickly translates into additional costs. The challenge will be to find the right mix of training time and skill levels to meet entrepreneurs' needs.

LITERACY ORIENTED FUNCTIONAL EDUCATION:
A WORKING BIBLIOGRAPHY

I. Foundations of Literacy Education

Concepts and Issues

- Bataille, León, ed. A Turning Point for Literacy. Oxford: Pergamon Press, 1976.
- Birasall, Nancy and McGreevey, William P. The Second Sex in the Third World: Is Female Poverty a Development Issue? Washington, D.C.: International Center for Research on Women Policy Roundtable, 1978.
- Bowman, Mary Jean, and Anderson, C. Arnold. The Participation of Women in Education in the Third World. Chicago: University of Chicago, 1978.
- Bronfenmajer, Gabriela; Casanova, Ramón; and García, Carmen. Modalidades Educativas y Desarrollo en Venezuela. Caracas, Venezuela: Centro de Estudios del Desarrollo, 1979.
- Carr, Marilyn. Appropriate Technology for African Women. Addis Ababa: The African Training and Research Centre for Women of the Economic Commission for Africa, United Nations, 1978.
- Center for International Education. Nonformal Education in Ecuador, 1971-1975. Amherst, Massachusetts: Center for International Education, University of Massachusetts, 1975.
- Dauzat, Sam and Dauzat, Jo Ann. "Literacy: In Quest of a Definition." Convergence Vol. 10, no. 1 (1977), pp. 37-42.
- Development Alternatives, Inc. A Seven Country Survey of the Roles of Women in Rural Development. Washington, D.C.: Development Alternatives, Inc., 1974.
- Easton, Peter, A. Functional Literacy and Cooperative Education. Paris: Institute of Research and Application of Development Methods, 1972.
- Faure, Edgar, et al. Learning to Be. Paris. France: Unesco, 1972.
- Gillette, Arthur. Youth and Literacy. New York: Unesco/UNICEF, 1972.
- Goody, Jack, ed. Literacy in Traditional Societies. Cambridge: Cambridge University Press, 1968.
- Harman, David. Community Fundamental Education. Lexington, Massachusetts: Lexington Books, 1974.

- Hunter, Carman St. John and Harman, David. Adult Illiteracy in the United States. New York: McGraw-Hill Book Company, 1979.
- Inkeles, Alex and Smith, David H. Becoming Modern. Cambridge, Massachusetts: Harvard University Press, 1974.
- International Labour Organization. Labour Education, No. 35 (1977). Geneva: International Labour Organization.
- _____. Labour Education, No. 36 (1978). Geneva, Switzerland: International Labour Organization.
- Kinsey, David C. and Bing, John W., eds. Nonformal Education in Ghana: A Project Report. Amherst, Massachusetts: Center for International Education, University of Massachusetts, 1976.
- Kokuhirwa, Hilda. The Role of Education in Mobilizing Women for Development in Tanzania. Amherst, Massachusetts: Center for International Education, 1978.
- Lizarzaburu, Alfonso E. "ALFIN, an Experiment in Adult Literacy Training in a Society in Transition." Prospects Vol. VI, No. 1 (1976), pp. 103-110.
- Martínez, Fernando Valderrama. Seis Artículos Sobre Analfabetismo. Quito, Ecuador: n.p., 1963.
- Ministry of Education and Social Welfare. Nonformal Education. New Delhi: Ministry of Education and Social Welfare, 1974.
- Moulton, Jeanne Marie. Animation Rurale: Education for Rural Development. Amherst, Massachusetts: Center for International Education, University of Massachusetts, 1977.
- Rycroft, W. Stanley and Clemmer, Myrtle M. The Struggle Against Illiteracy. New York: The United Presbyterian Church in the U.S.A., 1965.
- Seay, Maurice F. "The Community Education Concept - A Definition." In Community Education: A Developing Concept, pp. 3-15. Edited by Maurice F. Seay. Midland, Michigan: Pendell Publishing Company, 1974.
- Srinivasan, Lyra. Perspectives on Nonformal Adult Learning. New York: World Education, 1977.
- Surjadi, A.; Mohmoed, Zaini; and Sihombing, U. Development Workshop to Formulate and Integrate Research and Development Project Proposal to Increase the Effectiveness and Efficiency of the NFE Literacy Programme. Jakarta, Indonesia: Ministry of Education, 1978.
- Terra, Juan Pablo. Alfabetismo y Escolarización Básica de los Jóvenes en América Latina. Quito, Ecuador: Ministerio de Educación y Cultura, 1979.

Unesco. Basic Services for Children: A Continuing Search for Learning Priorities. Vol. I, No. 36. Paris: Unesco, 1978.

. Basic Services for Children: A Continuing Search for Learning Priorities. Vol. II, No. 37. Paris: Unesco, 1978.

Wilder, B. Evolution of the Concept of Literacy Programs in the 20th Century. East Lansing, Michigan: Michigan State University, n.d.

YWCA of India. Literacy Manual for Field Workers. New Delhi, India: Abhinav Publications, 1976.

Models and Methods

Bhola, H.S. "The Methods of Functional Literacy," Literacy Discussion Vol. 1, No. 4, 1970, pp. 31-54.

Decker, Larry E. Foundations of Community Education. Midland, Michigan: Pendell Publishing Company, 1972.

de Clerck, Marcel. The Operational Seminar: A Pioneering Method of Training for Development. Paris, France: Unesco, 1976.

FAO. "Extension Teaching Methods, I, II, III Group Methods." In Education and Extension Communication. Rome, : FAO, 1974.

Freire, Paulo. Pedagogy of the Oppressed. Trans. by Myra Bergman Ramos. New York: The Seabury Press, 1970.

Gudchinsky, Sarah. Introduction to Literacy: Pre-Reading. Dallas, Texas: Summer Institute of Linguistics, n.d.

Guldbrandsen, Frank. "An Introduction to Pedagogy of the Oppressed." East Lansing, Michigan: Michigan State University, 1972.

Gunter, Jock; Hoxeng, James; and Tasiguano, Enrique. Ashton-Warner Literacy Method: Technical Note No. 5. Amherst, Massachusetts: Center for International Education, 1972.

Houle, Cyril O. The Design of Education. Washington, D.C.: Jossey-Bass, Inc., 1972.

International Labour Office. Workers' Education and Its Techniques. A Worker's Education Manual. Geneva, Switzerland: International Labour Office, 1976.

Kazanas, H.C. Affective Work Competencies for Vocational Education. Columbus, Ohio: ERIC Clearinghouse on Adult, Career and Vocational Education, The Ohio State University, 1978.

Shankar, R. An Experiment in Functional Literacy Teaching Through Naya Savera Method. Lucknow, India: Literacy House, 1972.

Verduin, John R. Jr.; Miller, Harry G.; and Greer, Charles H. Adults Teaching Adults: Principles and Strategies. Austin, Texas: Learning Concepts, 1977.

Policy

Baucom, Kenneth L. The ABCs of Literacy: Lessons from Linguistics. Amersham, England: Hulton Educational Publications Ltd., 1978.

Fishman, Joshua A. et al., eds. Language Problems of Developing Nations. New York: John Wiley & Sons, Inc., 1968.

Gorman, Thomas P., ed. Language and Literacy: Current Issues and Research. Teheran, Iran: International Institute for Adult Literacy Methods, 1977.

IDRC/ICAE. The World of Literacy: Policy, Research and Action. Ottawa: International Development Research Centre, 1979.

Unesco. The Experimental World Literacy Programme: A Critical Assessment. Paris: Unesco, 1976.

_____. "Le Tournant de l'Alphabétisation." Perspectives Vol. VI, No. 1, (1976).

_____. "Schooling in the Mother Tongue in a Multilingual Environment." Prospects Vol. VI, No. 3 (1976), pp. 313-498.

II. Literacy Surveys

Literacy Surveys - General

Department of Educational Affairs. Educational Deficits in the Caribbean. Washington, D.C.: Department of Educational Affairs, 1979. (Also in Spanish as Los Déficit Educativos en América Latina. 1979.)

Southeast Asian Ministers of Education Organization. Beyond School Walls: A Study of Nonformal Education in the Seames Region, 1973-1974. Bangkok: SEAMES, n.d.

Unesco. UNESCO Regional Experts Meeting on Literacy in Asia, Bangkok, 22-28 November 1977. Bangkok, Thailand: Unesco Regional Office for Education in Asia and Oceania, 1978.

_____. Post-Literacy in Africa - Problems and Outlooks. Dakar: Unesco, 1977.

Literacy Statistics

Unesco. Estimates and Projections of Illiteracy. (Current Studies and Research in Statistics). Paris: Unesco, 1978.

Statistics on Educational Attainment and Illiteracy, 1945-1974.
Paris: Unesco, 1977.

III. Instructional Technology/Media/Support Services

General

Bock, John C. and Papagiannis, George J. The Demystification of Nonformal Education: A Critique and Suggestions for a new Research Direction. No. 1. Amherst, Massachusetts: Center for International Education, University of Massachusetts, 1976.

Cain, Bonnie J. Medios de Comunicación Para la Integración de la Mujer Latino-americana de Escasos Recursos. Washington, D.C.: Human Resources Management, Inc., n.d.

Cotterell, F. Peter, ed. Language and Media Supports for Non-Formal Adult Basic Education. Nairobi, Kenya: Afrolit Society, 1975.

Evans, David R. Games and Simulations in Literacy Training. Amersham, England: Hulton Educational Publications Ltd., 1979.

Technology in Nonformal Education: A Critical Appraisal.
No. 2. Amherst, Massachusetts: Center for International Education, University of Massachusetts, 1976.

O'Kelly, Elizabeth. Simple Technologies for Rural Women in Bangladesh. Dacca, Bangladesh: UNICEF, Women's Development Programme, 1977.

Srinivasan, Lyra. Workshop Ideas for Family Planning Education. New York: World Education, 1975.

Thiagarajan, Sivasailam. Programmed Instruction for Literacy Workers. Teheran, Iran: International Institute for Adult Literacy Methods, 1976.

Vella, Jane K. Visual Aids for Nonformal Education. Amherst, Massachusetts: Center for International Education, University of Massachusetts, 1979.

Walker, David Addison. Understanding Pictures: Designing Appropriate Visual Materials for Education in Developing Countries. Amherst, Massachusetts: Center for International Education, University of Massachusetts, 1979.

Zimmer, Anne C. and Zimmer, Fred A. Visual Literacy in Communication: Designing for Development. Amersham, England: Hulton Educational Publications Ltd., 1978.

Radio

Academy for Educational Development. Educational Radio for Formal Primary School: The Rural Radio Education Project in Paraguay. Volume I: Technical Final report. Washington, D.C.: AED, September 1979.

Bogue, Donald J. "Educational Radio Programming: The Radio Forum." In The Use of Radio in Social Development. pp. 113-127. Edited by Terry D. Peigh, et al. Chicago: Communication Laboratory, Community and Family Study Center, University of Chicago, 1979.

Hall, Budd L. and Dodds, Tony. "Voices for Development: The Tanzanian National Radio Study Campaigns." In Radio for Education and Development: Case Studies, Volume II, pp. 260-299. Edited by Peter T. Spain, Dean T. Jamison and Emile G. McAnany. Washington, D.C.: The World Bank, 1977.

McAnany, Emile G. Radio's Role in Development: Five Strategies for Use. Washington, D.C.: Information Center on Instructional Technology, Academy for Educational Development, 1973.

Rogers, Everett; Braun, Juan R. with Vermilion, Mark A. "Radio Forums: A Strategy for Rural Development." In Radio for Education and Development: Case Studies, Volume II, pp. 361-381. Edited by Peter T. Spain, Dean T. Jamison, and Emile G. McAnany. Washington, D.C.: The World Bank, 1977.

Swanson, Donald A., et al. The Rural Education Project, Paraguay. Washington, D.C.: The Academy for Educational Development, 1979.

Theroux, James M. Effective Educational Radio: An Approach to Analyzing Programs. Amherst, Massachusetts: Center for International Education, University of Massachusetts, 1978.

Wells, Stuart. Instructional Technology in Developing Countries: Decision Making Processes in Education. New York: Praeger, 1976. pp. 97-103.

Printed Materials/Materials for Neoliterates

Bhola, H.S. Writing for New Readers: A Boon on Follow-up Books. Bonn, German Foundation for International Development, 1981.

Malya, Simoni. "Creating Literacy Surroundings in Tanzania: After Literacy What Next?" Literacy Discussion Vol. VIII, No. 4, Winter 1977-78, pp. 1-67.

Neijs, Karel. Les Manuels Elémentaires de Lecture. Elaboration, Evaluation, Emploi. Guide pratiques pour l'éducation extrascolaire - 2. Paris: Unesco, 1961.

Sticht, Thomas G., ed. Reading for Working: A Functional Literacy Anthology. Alexandria, Va.: Human Resource Research Organization, 1975.

Unesco. ...to Reach the Village...Unesco and Rural Newspapers in Africa. Paris: Unesco, n.d.

Trivedi, Sheela; Tripathi, Virendra; and Prakash, Anand. Functional Education Kit for Family Life Planning. Lucknow, India: Literacy House, 1972.

IV. Economics and Planning of Literacy (and Vocational) Education

General

Bhola, H.S. "The Methods of Functional Literacy," Literacy Discussion Vol. 1, No. 4, 1970, pp. 31-54.

Brooks, Kenneth W.; Litchfield, Carolyn G.; and Green, Gary Q. "A Survey of Planning Techniques." In Comprehensive Planning for Vocational Education: A Guide for Administrators, pp. 213-239. Edited by Carl S. Lamar. Arlington, Va.: The American Vocational Association, Inc., 1978.

Coster, John K. and Poplin, Patricia D. "Evaluating the Effectiveness of Comprehensive Planning." In Comprehensive Planning for Vocational Education: A Guide for Administrators, pp. 241-258. Edited by Carl S. Lamar. Arlington, Virginia: The American Vocational Association, Inc., 1978.

du Sautoy, Peter. Four Manuals on Adult and Youth Education. Paris: Unesco, 1966.

Hein, Charles T. Communicating Across Cultural Barriers. Nairobi, Kenya: Afrolit Society, 1977.

Lamar, Carl S. Comprehensive Planning for Vocational Education: A Guide for Administrators. Arlington, Virginia: The American Vocational Association, Inc. 1978.

Malinski, Joseph F.; Martin, Ann M.; and Lehrmann, Eugene. "Comprehensive Planning at the National, State and Local Levels." In Comprehensive Planning for Vocational Education: A Guide for Administrators, pp. 67-95. Edited by Carl S. Lamar. Arlington, Virginia: The American Vocational Association, Inc., 1978.

Moss, Jerome E., Jr. and Pucel, David J. "A Strategy Comprehensive Program Planning." In Comprehensive Planning for Vocational Educators: A Guide for Administrators, pp. 49-65. Edited by Carl S. Lamar. Arlington, Virginia: The American Vocational Association, Inc., 1978.

Parks, Darrell L. "Training Personnel to Plan Effectively." In Comprehensive Planning for Vocational Education: A Guide for Administrators, pp. 49-65. Edited by Carl S. Lamar. Arlington, Virginia: The American Vocational Association, Inc., 1978.

Unesco and National Committee for World Literacy Programme National Centre for Adult Education and Training. Country Planning and Programming of Literacy Activities. Teheran, Iran: National Centre for Adult Education and Training, 1976.

Vidyapeeth, Shramik. Planning and Organising Adult Education Programmes for Workers. New Delhi: Directorate of Adult Education, Ministry of Education, 1979.

Human Resource Development/Manpower Planning

Hein, Charles T., ed. Literacy and Human Development. Afrolit Papers, Vol. 1. Nairobi, Kenya: Afrolit Society, 1976.

Streeten, Paul P. Basic Needs: Premises and Promises. World Bank Reprint Series: No. 62. Washington, D.C.: The World Bank.

Participant Planning

Callaway, Helen. "Learner-Centered Innovations in Literacy Work." In A Turning Point For Literacy, pp. 183-194. Edited by Leon Bataille. Oxford: Pergamon Press, 1976.

Castanheira, Alexandre and Ladji, Niangane. "The Education of Migrant Workers -- Where Do We Stand? Two Migrant Workers Speak." Prospects Vol. IV, No. 3 (Autumn 1974), pp. 369-377.

Chambers, Robert. Managing Rural Development: Ideas and Experience From East Africa. Uppsala: Scandinavian Institute of African Studies, 1974.

Srinivasan, Lyra. Perspectives on Nonformal Adult Learning. New York: World Education, 1977.

Von Hahmann, Gail. Collaborative Programming in Nonformal Education. Amherst, Massachusetts: Center for International Education, University of Massachusetts, 1978.

Management, Planning and Training

Unesco. The Training of Functional Literacy Personnel. Paris: Unesco, 1973.

Curriculum Development

Bhola, H.S. Curriculum Development for Functional Literacy and Nonformal Education Programs. Bloomington, Indiana: Indiana University, 1979.

Bonnani, C. Description of the Principles, Methods and Techniques Adopted by the Esfahan Functional Literacy Pilot Scheme in Planning and Developing its Curricula. Paris, France: International Institute for Educational Planning, 1971.

Dighe, Anita, et al. Case Study of Curriculum Development for an Experimental Non-Formal Education Project for Rural Women. Teheran: IIALM, 1979.

Eaddy, Kenneth M. and Eaddy, Pamela A. "Proposed Strategies in Developing Curriculums for Special Groups." In Vocational Education for Special Groups, pp. 260-272. Edited by James E. Wall. Washington, D.C.: The American Vocational Association, 1976.

Johnson, Barbara. "Individualization of Instruction for Special Groups: Major Bases." In Vocational Education for Special Groups, pp. 273-289. Edited by James E. Wall. Washington, D.C.: American Vocational Association, 1976.

Kahler, David, ed. International Seminar on Curriculum Development for Basic Education Programmes. Bonn: German Foundation for International Development, 1978.

Larson, Milton. Analysis for Curriculum Development for Vocational Education. Columbus, Ohio: ERIC Clearinghouse for Vocational and Technical Education, The Ohio State University, 1969.

Literacy House. Scheme of Functional Literacy for Adult Women. Lucknow, India: Family Life Centre, Literacy House, 1977.

Machayek, Farideh. "Application of Systems Approach in Functional Literacy." In Basic Literacy Programme: Concept and Approach. National Committee for World Literacy Programme. Teheran: National Centre for Adult Education and Training, 1977.

Matteson, Harold R. Functional-Task-Competency Approach to Curriculum Development in Vocational Education for Agriculture. Madison, Wisconsin: College of Agricultural and Life Sciences, Department of Continuing and Vocational Education, University of Wisconsin, 1974.

Müller, Josef. "Identification of Learning Needs: Learner Analysis, Task Analysis." Working Paper, International Seminar on Curriculum Development for Basic Education Programmes. Bonn: German Foundation for International Development, 1978. (Mimeographed).

Seay, Donna M. "Diagnostic and Assessment Procedures for Identifying Individual Characteristics and Problems." In Vocational Training for Special Groups, pp. 238-259. Edited by James E. Wall. Washington, D.C.: American Vocational Association, 1976.

Tut, Taung. A Case Study of Curriculum Development and the Production of Teaching/Learning Materials for Literacy Classes Among Peasants and workers in the Socialist Republic of the Union of Burma. Teheran: International Institute for Adult Literacy Methods, 1979.

Warden, John W. "The Curriculum of Community Education." In Community Education Perspectives, pp. 78-82. Edited by Michael H. Kaplan and John W. Warden. Midland, Michigan: Pendell Publishing Company, 1978.

Warner, John C.; Wigglesworth, David C.; and Nowak, Frank E. "Task Analysis." In Materials and Methods in Continuing Education, pp. 156-162. Edited by Chester Klevins. Los Angeles: Klevins Publications, 1978.

Materials Production and Distribution

Asthana, V.K. A Report on Twentieth Writers' Workshop. Lucknow, India: Literacy House, 1970.

_____. Silk Screen Printing: An Evaluation of 6th Course. Lucknow, India: Literacy House, 1970.

_____. 21st Writers' Workshop. Lucknow, India: Literacy House, 1970.

Gatara, T.H. and Nzomo, George. "Training Materials Production, Monitoring and Evaluation." Listening Forums. Nairobi, Kenya: Programmes for Better Family Living, n.d.

Literacy House. Handbook for Social Education Material Writers. Lucknow, India: Literacy House, 1955.

Ministry of Education and Social Welfare. Preparation of Problem Oriented Learning Materials, Experimental Project. New Delhi, India: Ministry of Education and Social Welfare, 1974.

Shaw, E.C. Reaching New Readers in Rural Areas. Lucknow, India: Literacy House, 1970.

Thiagarajan, Sivasailam and Dormant, Diane. A Manual on the STDD Model for Functional Literacy Materials. Jakarta, Indonesia: Non-Formal Education Project, 1977.

Tripathi, Virendra and Singh, V.N., eds. Preparation of Problem-Oriented Learning Materials. New Delhi, India: India Adult Education Association, 1976.

V. Program Focus

Education

Industrial/Agricultural

Aldington, T.J. Producer Incentives as a Means of Promoting Agriculture Development: A Case Study of Cotton in Kenya. Discussion Paper No. 105. Nairobi, Kenya: Institute for Development Studies, University of Nairobi, 1971.

Axxin, George H. and Thorat, Sudhakar. Modernizing World Agriculture: A Comparative Study of Agricultural Extension Education Systems. New York: Praeger, 1972.

Evans, Rupert and Herr, Edwin, eds. Foundations of Vocational Education. Columbus, Ohio: Charles Merrill, 1978.

Friere, Maria. "Assessing the Role of Education in Rural Guatemala: The Case of Farm Efficiency" Ph. D. Dissertation, Berkeley, California: December 1979.

Ginzberg, E. Occupational Choice: An Approach to a General Theory. New York: Columbia University Press, 1951.

Hopcraft, Peter. Does Education Increase Farm Productivity? Nairobi, Kenya: Institute for Development Studies, University of Nairobi, 1976.

Lockhead, Marlaine; Jamison, Dean; and Lau, Lawrence. Farmer Education and Farm Efficiency: A Survey. Washington, D.C.: The World Bank, 1979.

Wharton, Clifton, ed. Subsistence Agriculture and Economic Development. Chicago: Aldine, 1969.

Functional Literacy

Bordia, Anil, ed. Farmers Training and Functional Literacy. New Delhi, India: Indian Adult Education Association, 1975.

- Bordia, Anil. The Vision of a Learning Society. New Delhi, India: Indian Adult Education Association, 1978.
- Bowers, John. "Functional Literacy: Definition and Evaluation." In The Evaluation of Functional Literacy Projects, pp. 15-68. London: Unesco Workshop, 1969.
- de Poncins, R. and Verdier R. Operation Groundnut in Mali: A Development Scheme Fostering Functional Literacy Instruction. Paris: International Institute for Educational Planning, 1971.
- Derryck, Vivian Lowery. The Comparative Functionality of Formal and Non-Formal Education for Women: Final Report. Washington, D.C.: Office of Women in Development, AID, 1979.
- Dumont, Bernard. Functional Literacy in Mali. Paris: Unesco, 1973.
- Fonseca, Claudia. "Functional Literacy for Village Women: An Experiment in Upper Volta." Prospects Vol. V, no. 3 (1975), pp. 380-386.
- Furter, Pierre. Possibilities and Limitations of Functional Literacy: The Iranian Experiment. Paris: Unesco, 1973.
- Gakuru, O.N.U.; Somerset, H.C.A.; and Wallis, Malcolm. The Kenya Functional Literacy Programme: An Evaluation. Nairobi, Kenya: Institute for Development Studies, University of Nairobi, 1976.
- Homayounpour, Parviz. The Experimental Functional Literacy Project for the Social and Economic Promotion of Rural Women. Teheran: National Centre for Adult Education and Training, 1977.
- Hurtado, Carlos Poveda. Alfabetización Funcional. Quito, Ecuador: Ministerio de Educación Pública, 1969.
- Hurtado, Carlos Poveda, comp. Proyecto Piloto de Alfabetización Funcional. Quito, Ecuador: Ministerio de Educación Pública, 1971.
- Ministère de l'Éducation Nationale. 14eme Seminaire de Fin de Campagne 1976-1977 et de Début de Campagne 1977-1978. Niamey, Niger: Ministère de l'Éducation Nationale, Direction de l'Alphabétisation et de la Formation Permanente, 1977.
- Ministry of Education. Functional Literacy and Family Life Planning Project. Bangkok, Thailand: Division of Adult Education, Ministry of Education, n.d.

Ministry of Education and Fine Arts. Functional Literacy in Ethiopia. Addis Ababa, Ethiopia: Ministry of Education and Fine Arts, 1968.

Mirzadeh, Mino. The Experimental Functional Literacy Project for the Social and Economic Promotion Rural Women in Saveh Shahrestan. Teheran: IIALM, 1979.

Müller, Josef, ed. Alphabétisation Fonctionnelle dans le Contexte de l'Education des Adultes. Teheran: L'Institute International pour les Methodes d'Alphabétisation des Adultes, 1973. (also in English).

Nafziger, Dean H., et al. Tests of Functional Adult Literacy: An Evaluation of Currently Available Instruments. Portland, Oregon: Northwest Regional Educational Laboratory, 1975.

National Literacy Advisory Committee. Functional Literacy As a Component in Integrated Rural Development. Banjul, Gambia: The National Literacy Advisory Committee, 1979.

Northcutt, Norvell, et al. Adult Functional Competency: A Summary. Austin, Texas: University of Texas at Austin, March 1975.

Population Council of India. Functional Literacy and Family Life Planning Education. New Delhi, India: Population Council of India, 1972.

Programmes for Better Family Living. Integrated Functional Education in Machakos District. Nairobi, Kenya: Programmes for Better Family Living, 1974.

Qutub, Ishaq Y.; Mansour, R. Fam; and Khater, M. Roushdi. Illiteracy as an Impediment to Production. Menoufia, Egypt: Regional Center for Functional Literacy in Rural Areas for the Arab States, 1972.

Singh, T.R. Functional Literates. Lucknow, India: Literacy House, n.d.

Tripathi, Virendra. A Course of Study in Functional Literacy. Lucknow, India: Literacy House, 1970.

Unesco. Contribution to Study of the Rural Environment within the Framework of Functional Literacy Operations. Paris: Unesco, 1979.

_____. MOBRAL - The Brazilian Adult Literacy Experiment. Paris: Unesco, 1975.

_____. La Alfabetización Funcional: Cómo y Por Qué. Paris: Unesco, 1979.

Viscusi, Margo. Literacy for Working: Functional Literacy in Rural Educational Studies and Documents No. 5. Paris: Unesco, 1971.

Zeigahn, Linda A. A Comparative Analysis: The Experimental World Literacy Programs in Mali and Tanzania. n.p., 1976.

VI. Clientele

- Clark, Noreen. Education for Development and the Rural Woman: Volume 1 - A Review of Theory and Principles with Emphasis on Kenya and the Philippines. New York: World Education, 1979.
- De Silva, M.W. Sugathapala. "Problems of Literacy in Diglossic Communities." In Language and Literacy: Current Issues and Research, pp. 19-36. Edited by Thomas P. Gorman. Teheran: International Institute for Adult Literacy Methods, 1977, .
- Dighe, Anita in collaboration with Roy, Prodipto; Koshy, T.A.; and Jesudason, Victor. Case Study of Curriculum Development for an Experimental Non-formal Education Project for Rural Women. New Delhi: Council for Social Development, 1979.
- Halvorson, Marian A. "Literacy and Life-Long Education for Women." Discussion document presented at the Third International Panel: Production of Training Materials in the Field of Functional Literacy. Cuenca, Spain; IIALM/OEI, 1978.
- Igoche, Martha H.G. "Integrating Conscientization into a Program for Illiterate Women in Nigeria," Convergence Vol. XIII, No. 1-2, 1980, pp. 110-117.
- Knowles, Malcolm. Self-Directed Learning. New York: Association Press, 1975.
- Kokuhirwa, Hilda. The Role of Education in Mobilizing Women for Development in Tanzania. Amherst, Massachusetts: Center for International Education, University of Massachusetts, 1978.
- Lenay, A. "Education for Non-Schooled Youth." In Work-Oriented Education for Africa, pp. 365-384. Edited by Udo Bude. Bonn: German Foundation for International Development, 1972.
- Roy, Prodipto, and Kapoor, J.M. The Retention of Literacy. New Delhi, India: The MacMillan Company of India, Ltd., 1975.
- Southeast Asian Ministers of Education Secretariat. Development Workshop to Formulate an Integrated Research and Development Project Proposal to Increase the Effectiveness and Efficiency of NFE Literacy Programmes. Final Report. Bangkok, Thailand: SEAMES, 1978.

VII. Research and Evaluation

- Beirn, Russell. A Review of Quantitative Research on Literacy & Development. Internal Report 34. Cambridge, Massachusetts: Harvard University, March 1969.
- Bhola, H.S. Evaluating Functional Literacy. Amersham, England: Hulton Educational Publications Ltd., 1979.
- Burke, Richard and Chiappetta, Michael. Final Report - Small Research Project on Characteristics of Non-Literate Adults. Bloomington, Indiana: Indiana University, 1977.
- Center for Applied Linguistics. "Baltimore Industrial Literacy Research Project." Arlington, Virginia: Center for Applied Linguistics, n.d.
- Clark, Noreen and McCaffery, James. Demystifying Evaluation. New York: World Education, 1979.
- Couvert, Roger. The Evaluation of Literacy Programmes. Paris, France: Unesco, 1979.
- Crone, Catherine D. "Autopsy or Checkup?" World Education Reports. New York: World Education, October 1977.
- Dulansey, Maryanne L., ed. Approaches to Appropriate Evaluation. New York: American Council of Voluntary Agencies for Foreign Services, Inc., 1978.
- Dutta, S.C. and Kempfer, Helen. Social Education in Delhi. New Delhi, India: Indian Adult Education Association, 1960.
- Farmer, James A. and Papagiannis, George. Program Evaluation: Functional Education for Family Life Planning, III. New York: World Education, 1975.
- Goldstone, Margaret Ferguson. "The Experimental World Literacy Programme and Its Assessment." Compare Vol. 9, No. 1 (1979).
- Hirsch, Paul M.; Miller, Peter V.; and Kline, F. Gerald, eds. Strategies for Communication Research. Sage Annual Reviews of Communication Research, Volume 6. Beverly Hills, California: Sage Publications, 1977.
- Kassam, Yosuf O. and Masisi, Yohanna K.C. New Research Approaches to Literacy Development in Tanzania. Dar es Salaam: Institute for Adult Education, n.d.
- King, Kenneth, ed. Literacy Research in Developing Countries: Report of the Bellagio IV Workshop on Educational Research With Special Reference to Research on Literacy. Bonn: German Foundation for International Development, 1978.

- Kinsey, David C. Evaluation in Nonformal Education: The Need for Practitioner Evaluation. Amherst, Massachusetts: Center for International Education, University of Massachusetts, 1978.
- Payne, David A. "The Assessment of Affect: Nomothetic and Idiographic." In Evaluation in the Affective Domain, pp. 63-75. Edited by William J. Gephart, et al. Bloomington, Indiana: Phi Delta Kapp, 1976.
- Sjogren, Douglas., Review and Synthesis of Research on Occupational Adaptability. Columbus, Ohio: ERIC Clearinghouse on Vocational and Technical Education, 1971.
- Skager, Rodney. Evaluating Lifelong Education. Hamburg: Unesco Institute of Education, 1976. pp. 1-22.
- Unesco. Research and Training in Literacy in Asia and Oceania. Bangkok, Thailand: Unesco, 1979.
- Wentling, Tim L. and Lawson, Tom E. Evaluating Occupational Education and Training Programs. Boston: Allyn and Bacon, Inc., 1975.
- Westphal, Larry, E. Research on Appropriate Technology. World Bank Reprint Series No. 88. Washington, D.C.: The World Bank, 1978.
- World Bank. School Leavers: Literacy Retained. Washington, D.C.: The World Bank, n.d.

VIII. Literacy and Motivation

- Beatty, Walcott H. "Affective Measurement and the Self Concept." In Evaluation in the Affective Domain, pp. 125-161. Edited by William J. Gephart, et al. Bloomington, Indiana: Phi Delta Kappa, 1976.
- Crone, Catherine D. Research on Innovative Nonformal Education for Rural Adults: Implications for Literacy Motivation. New York: World Education, 1978.
- Dunn, Douglas. Community Guide: Motivation Series. Tucson, Arizona: Cooperative Extension Service, University of Arizona, 1977.
- Foundation for Research on Educational Planning and Development. Adult Literacy Motivation (A Survey on Adult Education in Bangladesh). Dacca, Bangladesh: Foundation for Research on Educational Planning and Development, 1979.

Grabowski, Stanley M. "Motivation and Participation Patterns." In Materials and Methods in Continuing Education, pp. 213-221. Edited by Chester Klevins. Los Angeles, Calif.: Klevins Publications, 1978.

Grebelsky, Gra. "Motivations and Expectations." In From Illiteracy to Literacy, pp. 49-64. Jerusalem: Adult Education Centre, The Hebrew University of Jerusalem, n.d.

Kazanas, H.C. Affective Work Competencies for Vocational Education. Columbus, Ohio: ERIC Clearinghouse on Adult, Career and Vocational Education, The Ohio State University, 1978.

Kidd, J.R. How Adults Learn. New York: Association Press, 1973.

McClelland, David C. and Winter, David G. Motivational Aspects of the National Adult Education Programme. New Delhi, India: Ministry of Education and Social Welfare, 1978.

Ministry of Education and Social Welfare. Motivational Aspects of the National Adult Education Programme. New Delhi, India: Ministry of Education & Social Welfare, 1978.

Ministry of Education and Social Welfare. Why Should We Become Literate? New Delhi, India: Ministry of Education and Social Welfare, 1977.

IX. Literacy Skills

General

Gray, William S. The Teaching of Reading and Writing. Paris: Unesco, 1956.

_____. "Teaching Handwriting to Adults." In The Teaching of Reading and Writing, pp. 228-244. Edited by William S. Gray. Paris: Unesco, 1956.

Clason-Höök, Carla, compiler. Teaching Reading and Writing to Adults: A Sourcebook. Teheran: International Institute for Adult Literacy Methods, 1977.

Scribner, Sylvia and Cole, Michael. "Unpackaging Literacy." Social Science Information Vol. 17, No. 1 (1978), pp. 19-40.

Simmons, John and Allman, James. Literacy Retention and Adult Education in a Tunisian Village. Cambridge, Massachusetts: Harvard University, 1970.

Wilder, Bernard D. An Examination of the Phenomenon of the Literacy Skills of Unschooling Males in Laos. Ph.D. Thesis, Michigan State University, 1972.

Reading

Bowren, Fay R. and Zintz, Miles V. Teaching Reading in Adult Basic Education. Dubuque, Iowa: William C. Brown Company Publishers, 1977.

International Institute for Adult Literacy Methods. A Survey of Reader Interest and Preference in Eight Iranian Villages. Teheran: International Institute for Adult Literacy Methods, 1977.

Singh, Sohan. Learning to Read and Reading to Learn. Teheran: International Institute for Adult Literacy Methods, 1976.

Staiger, Ralph C. Roads to Reading. Paris: Unesco, 1979.

Sullivan, George. A Reason to Read. New York: Academy for Educational Development, Inc., 1976.

X. Teachers and Teacher Training

Centre de Formation de Cadres de l'Alphabétisation. Les Instructeurs en Formation. Niamey, Niger: Centre de Formation de Cadres de l'Alphabétisation, 1978.

Centro Nacional. Formación de Maestros de Educación de Adultos. Quito, Ecuador: Centro Nacional, Ministerio de Educación Pública, 1969.

Crone, Catherine D. and Hunter, Carman St. John, compilers. From the Field: Tested Participatory Activities for Trainers. New York: World Education, 1980.

Ministry of Education. Functional Literacy Teacher Training Handbook. Bangkok: Adult Education Division, General Education Department, Ministry of Education, 1977.

Shankar, Ram and Shivpuri, P.N. Training of Volunteers, A Report. Lucknow, India: Literacy House, n.d.

XI. Reports of Meetings, Seminars, Conferences

- Carvajal, María Elvira. Alfabetización Infantil en Barrios Marginales de Bogotá. Quito, Ecuador: Ministerio de Educación y Cultura, 1979.
- Dumont, B. et al. Final Report of the Meeting of Experts on Post Literacy in Africa. Dakar, Senegal: Unesco Regional Office for Education in Africa, 1977.
- ECA Secretariat. Non-Formal Education, Skills Acquisition and the Satisfaction of Basic Needs in Rural Areas. Addis Ababa, Ethiopia: Economic Commission for Africa, 1978.
- German Foundation for International Development. Literacy Campaigns in the Context of Development. Bonn: German Foundation for International Development, 1979.
- _____. Work-Oriented Education for Africa: A Conference Report. Bonn, Germany: German Foundation for International Development, 1972.
- Hall, Budd L. and Remtulla, Khatun, eds. Adult Education and National Development. Nairobi, Kenya: East African Literature Bureau, 1971.
- Hernández, Laura Edith Baldivieso. Ciclo Básico: Una Alternativa para el Area Rural en Bolivia? La Paz, Bolivia: Ministerio de Educación y Cultura, 1979.
- India International Centre. Eradication of Illiteracy. New Delhi, India: Council for Social Development, India International Centre, 1966.
- Indian Adult Education Association. Adult Education and Economic Development. New Delhi, India: Indian Adult Education Association, 1966.
- Indian Adult Education Association. Organisation and Techniques for Liquidation of Illiteracy. New Delhi, India: Indian Adult Education Association, 1962.
- International Co-ordination Secretariat for Literacy. International Symposium for Literacy, Final Report. Paris: International Co-ordination Secretariat for Literacy, 1975.
- Ministerio de Educación Pública. La Educación de Adultos en Conexión con el Desarrollo de la Comunidad Rural. Quito, Ecuador: Casa de la Cultura Ecuatoriana, 1962.
- Ministerio de Educación y Cultura. Agenda del Seminario Nómima de Participantes. Quito, Ecuador: Ministerio de Educación y Cultura, 1979.

Ministry of Education and Social Welfare. Monitoring the National Adult Education Programme. New Delhi, India: Ministry of Education & Social Welfare, 1979.

Organization of American States. Reunión Técnica de Educación Integrada de Adultos. Washington, D.C.: Organization of American States, 1978.

Organization of American States. Taller de Trabajo Sobre Educación de Distancia. Washington, D.C.: Organization of American States, 1979.

Tinker, Irene. Women and Development Recommendations. Washington, D.C.: American Association for the Advancement of Science, 1979.

Ulzen, E.A., ed. Implementation of Unesco Recommendations on the Development of Adult Education. Nairobi, Kenya: African Adult Education Association, 1978.

Unesco. Adult Education and Development, Conference report. Dar es Salaam, Tanzania: Unesco, 1976.

_____. National Operational Training Seminar on Functional Literacy. Dakar, Senegal: Unesco, Regional Office for Education in Africa, 1976.

_____. Regional Field Operation Seminar: A Report. Polikhumri, Afghanistan: The National Directorate of Adult Education and Functional Literacy, Unesco, 1976.

XII. Literacy and Development

Apezchea, Héctor J. El Problema del Analfabetismo en Honduras. Tegucigalpa, Honduras: Ministerio de Educación y Cultura, 1979.

Beeby, Clarence. The Quality of Education in Developing Countries. Cambridge, Massachusetts: Harvard University Press, 1966.

Benalcázar, César Augusto. El Analfabetismo en el Ecuador, Análisis de la Situación Pasada. Quito, Ecuador: Ministerio de Educación y Cultura, 1979.

Bigsten, Arne. Regional Inequality and Development. Nairobi, Kenya: Institute for Development Studies, University of Nairobi, 1977.

Blaug, Mark. "Literacy and Economic Development." The School Review (Winter 1966): 393-418.

- Bowman, Mary Jean and Anderson, C. Arnold. "Concerning the Role of Education in Development." In Old Societies and New States: The Quest for Modernity, pp. 245-79. Edited by Clifford Geertz. Glencoe, Illinois: Free Press, 1963.
- Carrington, Lawrence. Interpreting the State of Literacy in the English-Speaking Caribbean. Trinidad: School of Education, University of the West Indies, 1979.
- Clark, Mureen. Education for Development and the Rural Women, Vol. 1. New York: World Education, 1979.
- Cook, Wanda D. Adult Literacy Education in the United States. Newark, Delaware: International Reading Association, 1977.
- Coombs, Philip and Ahmed, Manzoor. Attacking Rural Poverty, How Nonformal Education Can Help. Baltimore: Johns Hopkins, 1974.
- de Rodríguez, Elda Maud. Problemas y Alternativas de la Alfabetización en Panamá. Panama City: Ministerio de Educación y Cultura, 1979.
- Garzón, Luis Vitaliano Morales. Estrategia del Plan Nacional de Educación de Adultos. Quito, Ecuador: Ministerio de Educación Pública, 1973.
- Herzog, William A. "Literacy and Community Economic Development in Rural Brazil." Rural Sociology Vol. 38, No. 3 (Fall 1973), pp. 325-337.
- Hickey, Gerald C. and Wright, Jesse. The Hill People of Northern Thailand: Social and Economic Development. Bangkok: USAID, 1978.
- Inkeles, Alex and Smith, David H. Becoming Modern: Individual Change in Six Developing Countries. Cambridge, Massachusetts: Harvard University Press, 1974.
- Kindervatter, Suzanne. Nonformal Education as an Empowering Process With Case Studies From Indonesia and Thailand. Amherst, Massachusetts: Center for International Education, University of Massachusetts, 1979.
- King, Kenneth. The African Artisan: Education and the Informal Sector in Kenya. London: Heineman Publishers, 1977.
- Lerner, Daniel. The Passing of Traditional Society. Glencoe, Illinois: The Free Press, 1958.
- Macharia, David and Masharani, T.D., eds. Adult Education and the Development of Skilled Manpower. Nairobi, Kenya: African Adult Education Association, 1973.

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- Malya, Simoni. "Creating Literacy Surroundings in Tanzania." Literacy Discussion Vol. VIII, No. 4 (1978).
- Michigan State University. The NFE Exchange, No. 14. East Lansing, Michigan: Non-formal Education Information Center, 1978.
- Ministère de l'Education Nationale. Seminaire de Réflexion sur le Rôle de l'Alphabétisation Dans la Société et Développement. Niamey, Niger: Ministère de l'Education Nationale, Direction de l'Alphabétisation et de la Formation Permanente, 1979.
- Müller, Josef, ed. Adult Education and Development with Special Reference to the Arab States. Bonn: German Foundation for International Development, 1975.
- Newell, Kenneth W. Educación de Adultos y Desarrollo. Bonn: Asociación Alemana para Educacion de Adultos, 1978.
- Organization of American States. Proyecto Especial de Educación de Adultos para el Desarrollo Rural Integrado. Washington, D.C.: Organization of American States, 1979.
- . Proyecto Multinacional de Educación Integrada de Adultos. Washington, D.C.: Organization of American States, 1978.
- Phillips, H.M. Literacy and Development. Paris: Unesco, 1970.
- Plaza, Galo. "Education and Development." Bulletín de Información. Washington, D.C.: Pan American Union, 1968.
- Quddus, M.A. Education for Illiterate Adults. Comilla, East Pakistan: Pakistan Academy for Rural Development, 1963.
- Saraf, S.N. Literacy in a Non-Literacy Milieu - Its Planning and Implementation - The Indian Scenario. Paris: Unesco, 1979.
- Shanker, Ram. Literacy and Adoption of Improved Agricultural Practices. Lucknow, India: Literacy House, n.d.
- Todoaro, Michael P. and Edward, Edgar O. "Education and Employment in Developing Countries." In Education and Development Reconsidered. Edited by F. Champion Ward. New York: Praeger Publishers, 1974.
- Unesco. The Elimination of Illiteracy and the Use of Complementary Education in the Socialist Republic of Viet Nam. Bangkok: Dept. of Complementary Education, Ministry of Education, Unesco Regional Office for Education in Asia and Oceania, 1979.

University of Florida. "Individual, Family and Village Literacy in Development." Tampa, Florida: University of Florida, 1978.

uz-Zaman, Rafe. "Why Literacy? An Essay on the Connection Between Literacy and Development." Literacy Discussion Vol. IX, No. 2, 1978.

Valenzuela, Edgardo T. Development Training for Asian People's Action. Bangkok, Thailand: Asian Cultural Forum on Development, 1977.

World Education. Integrated Nonformal Education to Promote Development Among Hill Tribes in Northern Thailand. The First Year: A Case Study. New York: World Education, 1978.

XIII. Bibliographies and Directories

Bibliographies

American Council of Voluntary Agencies for Foreign Service, Inc. Bibliography of Materials in the TAICH Information System on Case Studies and Program Planning, Management and Evaluation. New York: American Council of Voluntary Agencies for Foreign Service, Inc., 1976.

Clearinghouse on Development Communication. A Sourcebook on Radio's Role in Development. Washington, D.C: Clearinghouse on Development Communication, Academy for Education Development, 1976.

Literacy House. Selected Bibliography on Literacy Related to Family Life Education. Bibliographical Series, No. 2. Lucknow, India: Literacy House, 1977.

Northwest Regional Educational Laboratory. Annotated Bibliography on Applied Performance Testing (February 1978). Portland, Oregon: Clearinghouse for Applied Performance Testing, Northwest Regional Educational Laboratory, 1978.

. A Bibliographic Guide to Functional Literacy. Portland, Oregon: Northwest Regional Educational Laboratory, 1978.

Pigozzi, Mary Joy, compiler. Bibliography on Non-Formal Education and Development. East Lansing, Michigan: Non-Formal Education Information Center, 1979.

Radwin, Eugene. Literacy and Illiteracy: A Bibliography. Washington, D.C.: National Institute of Education, 1979.

Schlueter, Lynn C. and Fritz, Jim, compilers. Journals and Newsletters on Non-Formal Education and Development: A Selected Annotated Bibliography. East Lansing, Michigan: Non-Formal Education Information Center, 1979.

Shankar, R. Adult Literacy: Annotated Bibliography. Lucknow, India: Literacy House, n.d.

Sharma, K.D., compiler. Radio and T.V. in Literacy and Adult Education: Interpretative Bibliography. Teheran, Iran: International Institute for Adult Literacy Methods, n.d.

_____. The Problem of Drop-Outs: An Interpretative Bibliography. Teheran: International Institute for Adult Literacy Methods, 1980.

Tripathi, Virendra; Khare, S.K.; Pal, R.S., compilers. Selected Bibliography on Non-Formal Education. Bibliographical Series no. 1. Lucknow, India: Literacy House, 1975.

Unesco. Documents From the Experimental World Literacy Program. Geneva, Switzerland: Literacy, Adult Education and Rural Development Division, Unesco, 1979.

University of Reading. Literacy Documents 9200-9249, Series D, No. 8. Reading, England: Literacy Documentation Service, University of Reading, 1979.

Versluys, J.D.N., ed. Research in Adult Literacy, A Bibliography. Teheran, Iran: International Institute for Adult Literacy Methods, 1977.

Directories

International Institute for Adult Literacy Methods. Directory: Literacy Journals and Periodicals. Teheran: International Institute for Adult Literacy Methods, 1978.

International Institute for Adult Literacy Methods. Directory - Universities and Institutes Offering Literacy Training Programmes. Teheran: IIALM, 1977.

Spencer, John, ed. Illiteracy in the Developing World. The British Committee on Literacy 1976. Reading, England: The Secretary to the British Committee on Literacy, Agricultural Extension & Rural Development Centre, 1976.

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