DRAFT

THE
EDUCATION FOR ALL
TEACHER TRAINING PACKAGE

The
Education for All
Teacher–Training Package

In 1990, the World Conference on Education for All, convened and sponsored jointly by the executive heads of UNESCO, UNICEF, UNDP and the World Bank, issued a call for action to meet the basic learning needs of all children, youth and adults in all countries. The World Declaration on Education for All, adopted unanimously by the Conference, underpins a worldwide consensus on an expanded vision of basic education and a renewed commitment to provide education for all in all countries.

The Education for All Teacher–Training Package, which has now been developed by UNESCO, supported by UNDP, represents a challenge to all working in the field of education to think in practical terms about the implications of Education for All and about what action is needed to meet basic learning needs. These needs cannot be met by a simple quantitative expansion of educational programmes as they now exist, although such expansion may be part of the solution in some countries.

Presented in the form of a series of modules designed to complement existing teacher–training programmes, the package provides a basis for in–service and pre–service

training courses for education personnel as well as for self–directed study. The material can also be easily adapted for use in distance education.

It is hoped that use of the package will be of value as a means of preparing the ground for the longer-term process which, with the collaboration of ministries and education authorities, non-governmental bodies and teacher-training institutions, will ensure the continued development of the material and its acceptance as an integral part of pre-service and in-service training programmes for education personnel.

2

DEVELOPMENT OF THE PACKAGE

It was decided at the outset that the package should be prepared in the context of technical co-operation among developing countries (TCDC). A consultant was invited by UNESCO to design outlines for a series of modular elements and the work of developing and testing them was then entrusted to three working groups of educators and teachers one in Africa (based in Zimbabwe), one in Asia (based in the Philippines) and one in the
Caribbean (based in Jamaica).

The task of critically reviewing and assessing the material they produced was then carried forward with the active co-operation of the leaders of the groups. Now adapted and edited to form a consolidated whole, the package deliberately retains many elements that reflect the varied and distinctive settings in which the modules were initially developed.

OVERVIEW OF THE PACKAGE
The purpose of the package, comprising both the printed material and the accompanying video, is to provide those following the course with a pedagogically logical series of specific learning experiences and outcomes.The printed material is presented in two volumes for convenience. It consists of an introductory unit, twelve substantive modules and a concluding unit. The substantive modules, which form the core, cover many different aspects of Education for All and address key topics or facets of the teaching and learning process which demand conscious attention and action if the vision of Education for All is to become a reality. Each module comprises three elements: an introduction to the particular topic and its place in

education; a series of related learning activities; and a set of readings together with bibliographical references and suggestions for further reading and study.

The package has been designed primarily to provide a basis for in-service training courses for teachers as well as for courses at the pre-service level which will effectively complement existing teacher-training programmes. Many of the matters covered, although of vital importance to the education of future generations, rarely figure significantly or even at all in traditional programmes. At the same time, the package will be
found to be wellsuited for self-directed study, notably by teachers, teacher trainers and personnel engaged in education management and administration. There will be distinct advantages for those able to work in groups rather than individually.

Most topics should involve three to four hours of work. Three of them, however, which comprise several sub-modules or sections are each likely to require seven to eight hours.
Topic 12, (Quality Education and Standards) and Topic 13, (The Requirements), are of particular relevance to those in ministries, local authorities and schools who are primarily concerned with the planning, organization and administration of education.

Users of the package are strongly recommended to work through the material in the sequence in which it is presented, with all activities being carried out as described. These vary widely and, while some may be taken at a relatively leisurely pace, others call for considerable sustained concentration and effort. Some involve watching a video and then discussing it with colleagues. Others involve identifying issues, problems or topics for study in a particular field of education. Still others invite participants to construct models or to engage in role

play and games designed to help them gain an understanding of particular concepts. Some activities are to be carried out individually, others in small groups or by all those following the course.

NOTES FOR COURSE ORGANIZERS AND DIRECTORS

While it may not always be possible to have a course organizer, it is highly desirable for the course activities to be co-ordinated by someone with a good knowledge of Education for All.

The World Declaration on Education for All constitutes the basis of the package as a whole. The written material has been arranged in a sequence which broadly follows that of the Declaration. The video begins with a presentation of the Declaration and this should be used as part of the introduction to the course. The second part of the video, which provides illustrations of applications in many different settings of the ideas contained in the Declaration, may serve at a later stage to reinforce material already covered and as a lead into the remainder of the course. The use of the video followed by discussion, although this is not indispensable, is strongly recommended.

The main responsibility of the organizers is to help participants to fully understand the content of the Declaration as a whole and to think through its implications for their own situations. Each member of the course should be engaged in an active process of learning and of thinking through the questions and issues being presented. He or she must be encouraged and, where necessary, motivated to interact with the other participants.

While each topic has its particular focus, there are some themes which run through a number of them. For example, the concept of

5

Access and Equity, central to Topic 2, also finds its place in Topics 4, 5, 8, 9 and 11. Similarly, the focus on learning acquisition, introduced in Topic 3, continues in Topic 5 and is taken up again in Topics 9 and 11. Organizers should help participants to reinforce their thinking and deepen their understanding of such themes as they progress through the course, so that by the end they will have acquired a sound understanding of the different dimensions of Education for All.

The topics include many activities which are designed to encourage the participants themselves to promote Education for All in ways that are open to them. Beginning with Topic 1, they are asked questions about the implications of EFA for their own work both in the immediate and in the long-term future. In particular, they are frequently asked to think about ways in which the ideas and values embodied in the Declaration can enrich their own professional capacity.

These and other questions which run through the course culminate in Topic 14, The Way Ahead, which invites participants to prepare plans for individual action in co-operation with colleagues and by the school as a whole. Organizers should look on this final stage as a launching pad for renewed efforts to achieve the goal of Education for All rather than the end of a programme.

In working through the package it is important for organizers and participants alike to clearly bear in mind the three distinct but interrelated components of each module: the introduction to the topic with its series of learning outcomes; the main content with its related learning activities; and the readings, appendices, bibliographical references and suggestions for further study.

Time should be allowed to ensure that participants are properly aware of the meaning of the expected learning outcomes. At the end of each

topic they should be encouraged to assess whether these have in fact been achieved.

It is important for the activities to be carried out in the sequence in which they are presented. They should be approached constructively and with maximum interaction between the participants. Those unfamiliar with some of the techniques and approaches should be helped to recognize the value that these might have for their own teaching. Each participant should be encouraged to carry a notebook, keeping a personal account of the conclusions and results at the end of every activity. When the course is over they will then have their own permanent record for future use.

The readings found in the final part of each topic are, in many cases, linked directly with specific activities. Participants should read them carefully and with understanding before
embarking on the relevant activity. Other readings provide supplementary ideas and enrichment of the scope of a particular topic, as do the bibliographies and suggestions for further reading and study.

7

THE MODULES
Volume 1
Topic 1 Introductory Topic

The purpose of this topic is self-evident and is directed towards:

reaching an understanding of the purpose of the course, in particular as one designed to lead to action;

reviewing the concept of Education for All, its purpose and values;

acquiring an overview of the World Declaration on Education for All and the Framework for Action to Meet Basic Learning Needs;

reaching an understanding of why the messages of the Declaration and Framework are of fundamental importance for teachers, educators and education planners and administrators.

(The full texts of the World Declaration on Education for All and of the complementary Framework for Action are included as Appendices to Topic1)

Topic 2 Access and Equity

The three sub-modules of this topic seek to identify some of the realities inherent in the concept of Education for All and involve those following the course in:

equity and gender

becoming aware that gender and sex are different and that gender is constructed and transmitted during the process of socialization ;

reaching a greater awareness of their assumptions about the roles and abilities of women and girls;

realizing that as an agent of socialization in the school the teacher may contribute to inequality of opportunity and the academic underachievement of girls;

considering forms of classroom interaction and ways of teaching which would motivate girls and also break down gender stereotypes;

considering possible means by which gender awareness can be promoted and gender as an issue can be introduced to colleagues and pupils' parents;

considering the role of teachers in initiating change in schools and influencing education policy.

people with disabilities

raising the awareness of colleagues, pupils and the community about implications of equity in education for those with disabilities;

recognizing conditions that deny those with disabilities access to education;

9

recognizing and accepting that integration is the least restrictive approach to educational provision for the majority of those with disabilities.

<u>the very poor, refugees and minorities</u>

understanding the social and economic factors that may lead to the poor performance and underachievement of very poor, refugee and minority pupils in school;

understanding the role of teachers in redressing the situation in the classroom, the school and the community;

developing an awareness of their role in promoting equality of educational opportunity for marginalized minority ethnic groups.

Topic 3 Focusing on Learning

Regardless of discipline and subject content, it is vitally important fo the teacher to be aware of what is involved in effective learning.

The attention of users is directed to :

understanding the reasons why focusing on learning is so central to the Education for All enterprise;

reflecting on the meaning of quality education in the context of meeting basic learning needs;

reviewing key factors that influence learning;

considering the importance for teachers of understanding the
different factors involved in effective learning, effective communication
 between teacher and pupil, the content of what is taught, the methods used, and the values, attitudes, reasoning ability and skills acquired by pupils;
identifying effective ways of assessing learning achievement.

Topic 4 Broadening the Means and Scope of Basic Education

The diversity, complexity and changing nature of basic learning needs of children, youth and adults necessitate broadening and constantly redefining the scope of basic education. The users are involved in :

considering the scope of basic education in relation to the complementary and mutually reinforcing elements which make up an integrated system;

reviewing the implications for meeting basic learning needs in the context of education as a lifelong process;

focusing on the use that can be made of radio, television and other communication media in basic education ;

reviewing various types of distance education and considering ways of enhancing their impact and contribution to the goals of Education for All.

11

Topic 5 Enhancing the Environment for Learning

A complex range of factors within the home and community affect the capacity of the individual to learn. The importance of nutrition, health care and general physical and emotional support is not to be underrated.

This module demonstrates that theteacher hasan important role in :

realizing and understanding the importance of enhancing the environment for learning ;

recognizing the factors that enhance/hinder the environment for learning in early childhood, in formal education and in non-formal settings ;

identifying ways to improve the environment for learning in partnership with others.

Topic 6 Strengthening Partnerships

The multisectoral nature and scope of education requires a better understanding of how various sectors engaged in the educational process can work together to promote the task of meeting basic learning needs of children and adult learners. For teachers and other educators this is a matter of :

reaching a better understanding of the process of building partnerships and the elements basic to a partnership;

exploring the place which should be taken by strengthening partnerships in the expanded vision of Education for All ;

considering what new and revitalized partnerships are necessary to promote the task of meeting basic learning needs;

reaching a better understanding of how the various parties engaged in the educational process government authorities, non-governmental organizations, teachers, parents and learners can become true partners in it ;

reviewing the role that can be played by external partners such as aid agencies of various kinds, in promoting Education for All

Topic 7 Culture and Cultural Identity

Learning must be culturally appropriate if it is to be effective. Education
must promote a child's respect for his or her own culture and language as the foundation of self-respect and tolerance of others. Emphasis is placed on the tasks of :

reaching a better understanding of how education can promote the transmission and enrichment of positive cultural and moral values

considering how educators can provide education that supports and sustains culture while, at the same time, promoting effective learning of modern knowledge ;

exploring how an environment can be created within schools and other educational institutions that is conducive to the transmission of culture in a positive way, reinforcing its dynamic nature ;

13

considering how closer links can be forged between the school, the home, and the wider community which can help minimize culture conflict and provide motivation for learning achievement ;

exploring the relevance of the cultural context when designing programmes for different settings and age-groups;

considering the question of language choice, that is, the language of instruction to be used in a particular setting and its implications for learning achievement and cultural identity.

Volume 2

Topic 8 Towards Functional Literacy and Beyond

The need for augmented concepts of literacy that go beyond mere reading and writing is obvious. This is not only a matter of confronting the causes of illiteracy and of assessing the successes and failures of efforts to resolve the problem ; it is also one of identifying ways to maintain whatever gains are made in mastering the problem. For teachers and educators the task begins with :

recognizing the importance of adult literacy for individual and national development ;

considering the reasons for, and the advantages of, investing in an adult literacy programme ;

exploring some of the ways already being used effectively to promote literacy and considering appropriate adaptations or alternatives ;

paying special attention to the needs of any groups that seem particularly disadvantaged ;

considering how to help people move on from basic to functional literacy ;

considering how to avoid the vexed problem of lapsed literates.

Topic 9 Scientific and Technological Literacy and Numeracy

A major challenge at the end of the twentieth century is for basic education to effectively prepare children and adults for life in an increasingly technological world. Teachers in all disciplines and of all subjects need to be aware of the knowledge and information which is indispensable for all citizens in a scientifically literate society. This is a matter of :

appreciating the importance of science, technology and mathematics to society ;

reaching a better understanding of how education can prepare children and adults for life in an increasingly technological world ;

considering some of the steps which need to be taken to bring into being an effective programme for scientific and technological literacy and numeracy ;

considering ways to make the teaching of science, technology and mathematics more real in terms of the life situation of the learners.

Topic 10 Education and the World of Work

The ongoing task of establishing better links between the formal education system and the world of work is of major importance. In a world of rapid social and technological change, 'learning to learn' has become a vital prerequisite for lifelong learning. Teachers and educators have a special responsibility in :

examining knowledgeably and participating in the debate on linking education to the world of work ;

recognizing the importance of placing learning within the context of pupils' lives ;

identifying ways of forging closer links between school education, on the one hand, and industry, commerce, the public-service sector and agriculture, on the other ;

recognizing the factors that hinder the promotion of school and community partnerships in education and identifying ways of surmounting them ;

increasing awareness of the importance which should be attached to the teaching of lifelong learning skills.

Topic 11 'Quality of Life' and Development Education

It is now widely accepted that environmental, population and health issues must find a central place in basic education. Full use must be made of formal, non-formal and informal approaches. Translating this into action requires :

16

reaching a better understanding of how education can contribute to meeting basic learning needs related to quality of life and development
issues such as environment, population and health ;

exploring local examples of environment–related problems and current efforts being made to alleviate them ;

exploring steps that have to be taken to introduce into school curricula a dimension that embraces environment, population and health ;

acquiring an understanding of the interdisciplinary and innovative teaching approaches required in the 'quality of life' and development education.

Topic 12 Good Quality Education and Standards

This topic explores one particular approach which uses standards to help achieve quality education. These set targets for the school, its administrators, teachers, pupils and educational practices. They are not in any sense prescriptive and may be quite inappropriate in some countries, but they do suggest how, through the specification of performance indicators, the measure of achievement of a particular standard can be assessed. The results may be valuable for teachers and administrators alike in leading to higher standards in teaching and learning. The exercise involves :

considering some key issues in the use of standards for improving the quality of education ;

reviewing several sets of standards for promoting excellence, and ways in which the achievement of a particular standard can be assessed.

Topic 13 The Requirements

The sheer size of the task involved in achieving Education for All is intimidating, for governments and education authorities as much as for teachers and others working with them in the front line. An attempt to set in a global perspective the major requirements for transforming education for All into a reality involves :

considering the overall requirements which will lead to Education for All becoming a reality in every national setting ;

identifying the elements that constitute the policy environment for Education for All and ways of developing a supportive policy context

reviewing the elements of a national technical capacity for Education for All and seeing how such a capacity can be developed ;

exploring ways of strengthening international solidarity in the context of meeting basic learning needs.

Topic 14 The Way Ahead

This final topic provides those who have followed the course with an opportunity to review, consolidate and form a complete picture of the experience. It encourages each participant to focus on what his or her personal role as a teacher will be in working to achieve Education for All. This involves :

18

considering what steps need to be taken to implement the Education for All goals in a particular national/regional/local setting;

considering the formulation of intermediate goals as specific targets to be included in national and subnational plans for educational development;

considering, in particular, the implications of these goals for teachers and teacher–educators in terms of the new roles, new content and innovative teaching strategies that will be required if basic learning needs are to be met.

———————————

A valuable body of supporting material is contained in three specially commissioned monographs based on the work of the series of round tables organized during the World Conference on Education for All.

Education for All :
Purpose and Context, Monograph I.
1991. Paris, UNESCO.

Education for All :
An Expanded Vision, Monograph II.
1992. Paris, UNESCO.

Education for All :
The Requirements, Monograph III.
1992Paris,UNESCO.

The

Education for All

Teacher - Training Package

Volume 1

Edited by Sheila M. Haggis

UNESCO   UNDP

Foreword

The World Declaration on Education for All, adopted unanimously in March 1990 by the World Conference on Education for All meeting in Jomtien, Thailand, is a call for action to meet the basic learning needs of all children, youth and adults. The Conference was convened and sponsored jointly by the executive heads of UNESCO, UNICEF, the United Nations Development Programme (UNDP) and the World Bank. It was hosted by the Government of Thailand, and eighteen other governments and organizations were co-sponsors.

The Declaration underpins a worldwide consensus on an expanded vision of basic education and a renewed commitment to provide education for all in all countries. The task of giving effective expression to the values and ideas it embodies constitutes a major challenge to teachers everywhere and indeed to all those engaged in the educational process at all levels. Their co-operation and support and, above all, their own understanding of and commitment to these values and ideas together constitute the most important prerequisites for success. Only through their efforts will basic learning needs be met and thus lead to the empowerment of both individuals and society which is central to the expanded vision of basic education for all.

Recognizing this, UNESCO, supported by UNDP, launched a project to prepare a teacher-training package which would make the main messages of the World Conference readily accessible to those involved in basic education worldwide. The package has been designed to encourage all working at the grass roots to think in practical terms about the implications of 'Education for All' and about what it means to meet 'basic learning needs'. The purpose has been to provide a basis for in-service training courses for teachers as well as for courses at the pre-service level. Presented in the form of a series of topics, the package has been designed as a complement to teacher-training programmes. At the same time, the material will be found to be well-suited for self-directed study by teachers, teacher trainers and personnel engaged in education management and administration, working individually or in groups.

It can also be adapted for use in distance education. Furthermore, it is hoped that the package will be of value as a means of preparing the ground for the longer-term process which, with the collaboration of ministries and education authorities, non-governmental bodies and teacher-training institutions, will ensure the continued development of the materials and their acceptance as an integral part of pre-service and in-service training programmes for education personnel.

The materials which make up the package were prepared in the context of technical co-operation among developing countries. They are the product of development and testing of a series of modular elements by three working groups of educators and teachers – one in Africa (based in Zimbabwe), one in Asia (based in the Philippines) and one in the Caribbean (based in Jamaica). Their contributions, therefore, reflect the settings in which they work. But to emphasize the common purpose, provision was made for the leaders of the groups to meet together to review, assess and consolidate their contributions. The overall design of the package and the final editing and adapting of the material has been carried out by Mrs. Sheila M. Haggis.

Sheila Haggis worked with great courage and commitment to complete this package before her untimely passing in April 1995. The materials reflect her absolute dedication to the cause of Education for All. Sheila Haggis joined UNESCO in 1969 and devoted her life to helping teachers and teacher-educators worldwide. This package is dedicated to her memory.

Colin N. Power

Assistant Director-General for Education

Structure and Use of the Material

The package is made up of an introductory unit, twelve substantive topics and a concluding unit. The substantive topics cover many different aspects of Education for All, ranging from access and equity to the environment for learning, and from cultural identity to scientific and technological literacy and the world of work. Most should involve three to four hours of work but three (Topics 2, 9 and 11) are each likely to require a total of eight hours. Topics 12 and 13 are of particular relevance to those in ministries, local authorities and schools who are primarily concerned with the planning, organization and administration of education. However, in view of the prevalence of one-teacher schools in some parts of the world and given the fact that it is not uncommon for teachers to be assigned administrative responsibilities without further training, early orientation in some administrative aspects of Education for All should prove useful.

The material has been designed primarily for use in in-service training courses or in a one-semester pre-service course. If it is used for self-study by teachers, the programme should be organized in a way that will enable them to work together in groups and not be left in isolation. While the topics have been designed as a series to be covered as a whole, each is complete in itself so that, if necessary, individual units can be selected for incorporation into national or local training programmes.

Each topic is introduced by an overview outlining the nature and scope of the material together with a list of expected learning outcomes. The main body comprises a series of learning activities. These are presented in a logical pedagogical sequence, interspersed with readings and complemented by bibliographical references and suggestions for further reading and study. The accompanying audio-visual material forms an integral part of the package.

The package, as a whole, will be found to draw substantially on three specially commissioned monographs. These were published by UNESCO to provide a synthesis of the work of the series of round tables organized during the World Conference on Education for All and contain a valuable body of supporting material.

Users of the package are strongly recommended to work through the material in the sequence in which it is presented, with all 'activities' being carried out as described. These vary widely and, while some may be taken at a relatively leisurely pace, others call for considerable sustained concentration and effort. Some involve watching a video and then discussing it with colleagues. Others involve identifying issues, problems or topics for study in a particular field of education. Still others invite participants to construct models or to engage in role play and games designed to help them gain an understanding of particular concepts. Some activities are to be carried out individually, others in small groups or by all those following the course.

The intention throughout is to engage each member of the course in an active process of learning and of thinking through the questions and issues being presented. He or she must be stimulated and encouraged to interact with the other participants. Some may not be familiar with certain of the techniques, particularly role play and games. It is important for the course organizer to be aware of this, ensuring that the activities are carried out constructively and encouraging participants to recognize the value such techniques can have for their own teaching. They should certainly be encouraged to write down the results and conclusions of each activity so that at the end of the course they will take with them a permanent personal record for future use.

The
Education for All
Teacher-Training Package

Volume 1

Introductory Topic

UNESCO/D. Roger

TOPIC *1*

CONTENTS

Introductory Topic

Introduction

This topic focuses on the concepts and ideas formulated and discussed at the World Conference on Education for All.

Held at Jomtien, Thailand, from 5 to 9 March 1990, the Conference was convened jointly by the executive heads of the United Nations Children's Fund (UNICEF), the United Nations Development Programme (UNDP), the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the World Bank. The Conference was co-sponsored by an additional eighteen governments and organizations, and was hosted by the Government of Thailand.

Some 1,500 participants met in Jomtien. Delegates from 155 governments, including policy-makers and specialists in education and other major sectors, together with officials and specialists representing some twenty intergovernmental bodies and 150 non-governmental organizations, discussed major aspects of Education for All in forty-eight round tables and a plenary commission.

The result was the achievement of a worldwide consensus on an expanded vision of basic education and a renewed commitment to ensure that the basic learning needs of all children, youth and adults in all countries would be met effectively. This gave birth to the *World Declaration on Education for All* and the *Framework for Action to Meet Basic Learning Needs* which were adopted by acclamation at the closing plenary session of the conference on 9 March 1990.

Learning Outcomes

By the end of this topic, you will have:

❑ reached an understanding of the purpose of the course – in particular as one designed to lead to action;

❑ reviewed the concept of Education for All - its purpose and values;

❑ acquired an overview of the World Declaration on Education for All and the Framework for Action;

❑ reached an understanding of why the messages of the World Conference are of fundamental importance for teachers, educators and educational planners and administrators.

The Value of Education

The World Situation

Now let us take an even bigger perspective by looking at the world situation.

In spite of the notable efforts exerted by countries around the world to give meaning to the right of every human being to education, as clearly manifested in Article 26 of the Universal Declaration of Human Rights in 1948, the following realities still exist:

❑ More than 100 million children, including at least 60 million girls, have no access to primary schooling;

❑ Around 950 million adults, two-thirds of whom are women, are illiterate, and functional illiteracy is a significant problem in all countries, industrialized and developing;

❑ More than one-third of the world's adults have no access to the printed word and to new skills and technologies that could improve the quality of their lives and help them shape, and adapt to, social and cultural change;

❑ More than 100 million children and countless adults fail to complete basic education.

At the same time, the world faces daunting problems, notably mounting debt burdens, the threat of economic stagnation and decline, rapid population growth, widening economic disparities among and within nations, war, civil strife, violent crime, the preventable deaths of millions of children and widespread environmental degradation.

Yet the world today is also at the threshold of a new century, with all its promise for a new world. There is the genuine progress towards co-operation among nations; the essential rights and capacities of women are being realized; there are many useful scientific and cultural developments; there is an accelerating growth of information, much of it relevant to human survival, development and well-being.

These new forces, when combined with the cumulative experience of reform, innovation, research and the remarkable educational advancement of many countries, make the goal of basic education for all attainable.

The World Conference on Education for All

In view of the world situation described above, the participants in the World Conference on Education for All held in Jomtien, Thailand, drew up a Declaration which is to be read in Activity 1.2.

Activity 1.2

Individual Activity

This is a reading activity. Read the 'World Declaration on Education for All' (Appendix I) and 'Framework for Action to Meet Basic Learning Needs' (Appendix II) to gain a more thorough understanding of the results of the World Conference.

The Purpose and Content of Education For All

Now that you are fully aware of the World Declaration on Education for All (EFA) and its Framework for Action, let us learn more about the EFA movement by doing Activity 1.3.

Activity 1.3

Group Activity

This activity involves watching the first part of the video on Education for All. You will benefit from this more if you do it in a group.

After viewing the video, discuss your answers to the following questions:

❑ What is Education for All?

❑ What brought about the movement?

❑ Can you relate to the conditions that brought about the movement? How?

❑ What are the objectives of EFA?

❑ What are its main strategies to reach these objectives?

❑ Do you believe that these objectives are realizable? Why or why not?

The Challenge to Teachers

By this time, you have probably realized the value of a movement such as EFA. You may also realize that as a member of the education system, you have an important role to play in making this movement a reality. Indeed, in the end, it will be the individual teachers who have to face the enormous task of achieving quality Education for All. You are a key actor in education and your proper understanding of the ideas and values embodied in the World Declaration on Education for All is crucial. Yet it must not stop there. Understanding must lead to action.

The Course Description

To give you an idea of what is in store for you on this 'learning journey' into Education for All, read the course description in Reading 1.1 (page 6).

Taking a Positive Outlook

When you have acquired an overview of the different learning experiences which make up this training programme, proceed to the final activity.

Readings

Reading 1.1
Outline of the Course

1. *Introductory Topic*
    This topic leads you to reach an understanding of the course and to review the concept of Education for All – its purpose and value.

2. *Access and Equity*
    This topic discusses what has to be done to reach minority groups, the poor, disabled people, and the access of girls and women to education.

3. *Focusing on Learning*
    This topic focuses on the teacher's understanding of what is involved if learning is to be effective. These include such aspects as the content of what is taught, methods of teaching, skills to be acquired by students, and methods of assessing learning achievement.

4. *Broadening the Means and Scope of Basic Education*
    The topic deals with the redefinition of basic education to take account of complementary and mutually reinforcing elements which make up an integrated system. Here the concept of education as a lifelong process with various overlapping and interrelated stages is explored.

5. *Enhancing the Environment for Learning*
    This topic unfolds the complex factors within the home and community that affect the individual's capacity to learn. It also explains the importance of nutrition, health care and general physical and emotional support and the role of teachers in enhancing the environment for learning.

6. *Strengthening Partnerships*
    The topic shows how teachers and other educational personnel can work together more effectively; how they can collaborate with other groups involved in the educational enterprise, and how partnerships can be extended more widely.

7. *Culture and Cultural Identity*
    The topic expresses the need for learning to be culturally appropriate if it is to be effective. The need to promote a child's respect for his or her own culture and language as the foundation of self-respect and tolerance of others is communicated. It calls for the maintenance of culture while at the same time promoting effective learning of modern knowledge.

8. *Towards Functional Literacy and Beyond*
    The topic calls for augmented concepts of literacy beyond mere reading and writing.

9. *Scientific and Technological Literacy and Numeracy*
    The topic presents ways in which basic education can best prepare children and adults for life in an increasingly technological world.

10. *Education and the World of Work*
    The topic presents ways of linking the formal education system to the world of work, and emphasizes the importance of education as a basis for lifelong learning.

11. *'Quality of Life' and Development Education*
    The topic considers the incorporation of environmental, population and health issues into basic education and the use of formal, non-formal and informal approaches.

12. *Quality Education and Standards*
    The topic considers some key issues in the use of standards to improve the quality of education. It also reviews several sets of standards for promoting excellence, and ways in which the achievement of a particular standard can be assessed.

13. *The Requirements*
    The topic outlines requirements for meeting basic learning needs. They include: developing a supportive policy context; mobilizing and augmenting resources; building national technical capacity for gathering data, monitoring learning activities, identifying learning needs, and measuring effectiveness of programmes; and international solidarity.

14. *Concluding Topic: The Way Ahead*
    This topic brings the course to an end with a review of the principal lines of action, formulating questions for consideration and suggesting future actions.

Reading 1.2
The Mountain Climber

Narrator:

This is the story of a mountain climber.

One day, in a village far away, a stranger passed by a village on his way home from a climb up a mountain. He took a rest in an open shack where local folks were gathered. He brought out a flask and took a sip of the cold spring water. After doing so, he began to talk with the people.

Climber:

I have just climbed a mountain. It is not far away and not very steep. You must go and climb it too because once you reach its peak, you'll feel as though you own the world. The view is just fantastic, truly an exhilarating experience!

Narrator:

Four young men listened intently and began to be intrigued by the stranger's tale. They decided that they too must make that climb. So one cool day in September, the four friends started their trek up the mountain.

After a mile or so of climbing, the first climber started to complain about his hurting feet, his tired limbs and his aching back. Soon after, the second climber, himself tired, begged the others to return with him as he felt that it was getting dark and he was afraid that it would rain. He kept mumbling about the dangers of travelling in such a situation and his regret about joining the climb.The third climber kept looking at the path before him for things which he could take back to sell. The fourth climber, however, was oblivious to the pain and discomfort the others felt. He soaked in the beauty of the place and felt deeply ennobled by nature.

When the four climbers got back to the village, the local folk gathered around them, eager to hear about the adventure. As the fourth climber told his story, the three others wondered why they did not see the wonderful things that he saw.

Appendix I

WORLD DECLARATION ON EDUCATION FOR ALL: MEETING BASIC LEARNING NEEDS (adopted 9 March 1990)

PREAMBLE

More than 40 years ago, the nations of the world, speaking through the Universal Declaration of Human Rights, asserted that 'everyone has a right to education'. Despite notable efforts by countries around the globe to ensure the right to education for all, the following realities persist:

❑ More than 100 million children, including at least 60 million girls, have no access to primary schooling;

❑ More than 960 million adults, two-thirds of whom are women, are illiterate, and functional illiteracy is a significant problem in all countries, industrialized and developing;

❑ More than one-third of the world's adults have no access to the printed knowledge, new skills and technologies that could improve the quality of their lives and help them shape, and adapt to, social and cultural change; and

❑ More than 100 million children and countless adults fail to complete basic education programmes; millions more satisfy the attendance requirements but do not acquire essential knowledge and skills.

At the same time, the world faces daunting problems: notably mounting debt burdens, the threat of economic stagnation and decline, rapid population growth, widening economic disparities among and within nations, war, occupation, civil strife, violent crime, the preventable deaths of millions of children and widespread environmental degradation. These problems constrain efforts to meet basic learning needs, while the lack of basic education among a significant proportion of the population prevents societies from addressing such problems with strength and purpose.

These problems have led to major setbacks in basic education in the 1980s in many of the least-developed countries. In some other countries, economic growth has been available to finance education expansion, but even so, many millions remain in poverty and unschooled or illiterate. In certain industrialized countries too, cutbacks in government expenditure over the 1980s have led to the deterioration of education.

Yet the world is also at the threshold of a new century, with all its promise and possibilities. Today, there is genuine progress toward peaceful 'detente' and greater cooperation among nations. Today, the essential rights and capacities of women are being realized. Today, there are many useful scientific and cultural developments. Today, the sheer quantity of information available in the world – much of it relevant to survival and basic well-being – is exponentially greater than that available only a few years ago, and the rate of its growth is accelerating. This includes information about obtaining more life-enhancing knowledge – or learning how to learn. A synergistic effect occurs when important information is coupled with another modern advance – our new capacity to communicate.

These new forces, when combined with the cumulative experience of reform, innovation, research and the remarkable educational progress of many countries, make the goal of basic education for all – for the first time in history – an attainable goal.

Therefore, we participants in the World Conference on Education for All, assembled in Jomtien, Thailand, from 5 to 9 March, 1990:

Recalling that education is a fundamental right for all people, women and men, of all ages, throughout our world;

Understanding that education can help ensure a safer, healthier, more prosperous and environmentally sound world, while simultaneously contributing to social, economic, and cultural progress, tolerance, and international co-operation;

Knowing that education is an indispensable key to, though not a sufficient condition for, personal and social improvement;

Recognizing that traditional knowledge and indigenous cultural heritage have a value and validity in their own right and a capacity to both define and promote development;

Acknowledging that, overall, the current provision of education is seriously deficient and that it must be made more relevant and qualitatively improved, and made universally available;

Recognizing that sound basic education is fundamental to the strengthening of higher levels of education and of scientific and technological literacy and capacity and thus to self-reliant development; and

Recognizing the necessity to give to present and coming generations an expanded vision of, and a renewed commitment to, basic education to address the scale and complexity of the challenge;

proclaim the following

World Declaration on Education for All:
Meeting Basic Learning Needs

EDUCATION FOR ALL: THE PURPOSE

ARTICLE 1 – MEETING BASIC LEARNING NEEDS

1. Every person – child, youth and adult – shall be able to benefit from educational opportunities designed to meet their basic learning needs. These needs comprise both essential learning tools (such as literacy, oral expression, numeracy, and problem solving) and the basic learning content (such as knowledge, skills, values, and attitudes) required by human beings to be able to survive, to develop their full capacities, to live and work in dignity, to participate fully in development, to improve the quality of their lives, to make informed decisions, and to continue learning. The scope of basic learning needs and how they should be met varies with individual countries and cultures, and inevitably, changes with the passage of time.

2. The satisfaction of these needs empowers individuals in any society and confers upon them a responsibility to respect and build upon their collective cultural, linguistic and spiritual heritage, to promote the education of others, to further the cause of social justice, to achieve environmental protection, to be tolerant towards social, political and religious systems which differ from their own, ensuring that commonly accepted humanistic values and human rights are upheld, and to work for international peace and solidarity in an interdependent world.

3. Another and no less fundamental aim of educational development is the transmission and enrichment of common cultural and moral values. It is in these values that the individual and society find their identity and worth.

4. Basic education is more than an end in itself. It is the foundation for lifelong learning and human development on which countries may build, systematically, further levels and types of education and training.

EDUCATION FOR ALL: AN EXPANDED VISION AND A RENEWED COMMITMENT

ARTICLE 2 – SHAPING THE VISION

To serve the basic learning needs of all requires more than a recommitment to basic education as it now exists. What is needed is an 'expanded vision' that surpasses present resource levels, institutional structures, curricula, and conventional delivery systems while building on the best in current practices. New possibilities exist today which result from the convergence of the increase in information and the unprecedented capacity to communicate. We must seize them with creativity and a determination for increased effectiveness.

As elaborated in Articles 3 – 7, the expanded vision encompasses:

- ❑ Universalizing access and promoting equity;
- ❑ Focusing on learning;
- ❑ Broadening the means and scope of basic education;
- ❑ Enhancing the environment for learning;
- ❑ Strengthening partnerships.

The realization of an enormous potential for human progress and empowerment is contingent upon whether people can be enabled to acquire the education and the start needed to tap into the ever-expanding pool of relevant knowledge and the new means for sharing this knowledge.

ARTICLE 3 – UNIVERSALIZING ACCESS AND PROMOTING EQUITY

1. Basic education should be provided to all children, youth and adults. To this end, basic education services of quality should be expanded and consistent measures must be taken to reduce disparities.

2. For basic education to be equitable, all children, youth and adults must be given the opportunity to achieve and maintain an acceptable level of learning.

3. The most urgent priority is to ensure access to, and improve the quality of, education for girls and women, and to remove every obstacle that hampers their active participation. All gender stereotyping in education should be eliminated.

4. An active commitment must be made to removing educational disparities. Under-served groups: the poor; street and working children; rural and remote populations; nomads and migrant workers; indigenous peoples; ethnic, racial, and linguistic minorities; refugees; those displaced by war; and people under occupation, should not suffer any discrimination in access to learning opportunities.

5. The learning needs of disabled people demand special attention. Steps need to be taken to provide equal access to education to every category of disabled persons as an integral part of the education system.

ARTICLE 4 – FOCUSING ON LEARNING

Whether or not expanded educational opportunities will translate into meaningful development – for an individual or for society – depends ultimately on whether people actually learn as a result of those opportunities, i.e. whether they incorporate useful knowledge, reasoning ability, skills, and values. The focus of basic education must, therefore, be on actual learning acquisition and outcome, rather than exclusively upon enrolment, continued participation in organized programmes and completion of certification requirements. Active and participatory approaches are particularly valuable in assuring learning acquisition and allowing learners to reach their fullest potential. It is, therefore, necessary to define acceptable levels of learning acquisition for educational programmes and to improve and apply systems of assessing learning achievement.

ARTICLE 5 – BROADENING THE MEANS AND SCOPE OF BASIC EDUCATION

The diversity, complexity, and changing nature of basic learning needs of children, youth and adults necessitates broadening and constantly redefining the scope of basic education to include the following components:

- ❑ *Learning begins at birth.* This calls for early-childhood care and initial education. These can be provided through arrangements involving families, communities, or institutional programmes, as appropriate.

- ❑ *The main delivery system for the basic education of children outside the family is primary schooling.* Primary education must be universal, ensure that the basic learning needs of all children are satisfied, and take into account the culture, needs, and opportunities of the community. Supplementary alternative programmes can help meet the basic learning needs of children with limited or no access to formal schooling, provided that they share the same standards of learning applied to schools, and are adequately supported.

- ❑ *The basic learning needs of youth and adults are diverse and should be met through a variety of delivery systems.* Literacy programmes are indispensable because literacy is a necessary skill in itself and the foundation of other life skills. Literacy in the mother tongue strengthens cultural identity and heritage. Other needs can be served by: skills training, apprenticeships, and formal and non-formal education programmes in health, nutrition, population, agricultural techniques, the environment, science, technology, family life, including fertility awareness, and other societal issues.

- ❑ *All available instruments and channels of information, communications, and social action could be used to help convey essential knowledge and inform and educate people on social issues.* In addition to the traditional means, libraries, television, radio and other media can be mobilized to realize their potential towards meeting the basic education needs of all.

These components should constitute an integrated system – complementary, mutually reinforcing, and of comparable standards, and they should contribute to creating and developing possibilities for lifelong learning.

ARTICLE 6 – ENHANCING THE ENVIRONMENT FOR LEARNING

Learning does not take place in isolation. Societies, therefore, must ensure that all learners receive the nutrition, health care, and general physical and emotional support they need in order to participate actively in and benefit from their education. Knowledge and skills that will enhance the learning environment of children should be integrated into community learning programmes for adults. The education of children and their parents or other caretakers is mutually supportive and this interaction should be used to create, for all, a learning environment of vibrancy and warmth.

ARTICLE 7 – STRENGTHENING PARTNERSHIPS

National, regional, and local educational authorities have a unique obligation to provide basic education for all, but they cannot be expected to supply every human, financial or organizational requirement for this task. New and revitalized partnerships at all levels will be necessary: partnerships among all sub-sectors and forms of education, recognizing the special role of teachers and that of administrators and other educational personnel; partnerships between education and other government departments, including planning, finance, labour, communications, and other social sectors; partnerships between government and non-governmental organizations, the private sector, local communities, religious groups, and families. The recognition of the vital role of both families and teachers is particularly important. In this context, the terms and conditions of service of teachers and their status, which constitute a determining factor in the implementation of education for all, must be urgently improved in all countries in line with the joint ILO/UNESCO Recommendation Concerning the Status of Teachers (1966). Genuine partnerships contribute to the planning, implementing, managing and evaluating of basic education programmes. When we speak of 'an expanded vision and a renewed commitment', partnerships are at the heart of it.

EDUCATION FOR ALL: THE REQUIREMENTS

ARTICLE 8 – DEVELOPING A SUPPORTIVE POLICY CONTEXT

1. **Supportive policies in the social, cultural, and economic sectors are required in order to realize the full provision and utilization of basic education for individual and societal improvement.** The provision of basic education for all depends on political commitment and political will backed by appropriate fiscal measures and reinforced by educational policy reforms and institutional strengthening. Suitable economic, trade, labour, employment and health policies will enhance learners' incentives and contributions to societal development.

2. Societies should also ensure a strong intellectual and scientific environment for basic education. This implies improving higher education and developing scientific research. Close contact with contemporary technological and scientific knowledge should be possible at every level of education.

ARTICLE 9 – MOBILIZING RESOURCES

1. If the basic learning needs of all are to be met through a much broader scope of action than in the past, it will be essential to mobilize existing and new financial and human resources, public, private and voluntary. All of society has a contribution to make, recognizing that time, energy and funding directed to basic education are perhaps the most profound investment in people and in the future of a country which can be made.

2. Enlarged public-sector support means drawing on the resources of all the government agencies responsible for human development, through increased absolute and proportional allocations to basic education services with the clear recognition of competing claims on national resources of which education is an important one, but not the only one. Serious attention to improving the efficiency of existing educational resources and programmes will not only produce more, it can also be expected to attract new resources. The urgent task of meeting basic learning needs may require a reallocation between sectors, as, for example, a transfer from military to educational expenditure. Above all, special protection for basic education will be required in countries undergoing structural adjustment and facing severe external debt burdens. Today, more than ever, education must be seen as a fundamental dimension of any social, cultural, and economic design.

ARTICLE 10 – STRENGTHENING INTERNATIONAL SOLIDARITY

1. Meeting basic learning needs constitutes a common and universal human responsibility. It requires international solidarity and equitable and fair economic relations in order to redress existing economic disparities. All nations have valuable knowledge and experiences to share for designing effective educational policies and programmes.

2. Substantial and long-term increases in resources for basic education will be needed. The world community, including intergovernmental agencies and institutions, has an urgent responsibility to alleviate the constraints that prevent some countries from achieving the goal of education for all. It will mean the adoption of measures that augment the national budgets of the poorest countries or serve to relieve heavy debt burdens. Creditors and debtors must seek innovative and equitable formulae to resolve these burdens, since the capacity of many developing countries to respond effectively to education and other basic needs will be greatly helped by finding solutions to the debt problem.

3. Basic learning needs of adults and children must be addressed wherever they exist. Least-developed and low-income countries have special needs which require priority in international support for basic education in the 1990s.

4. All nations must also work together to resolve conflicts and strife, to end military occupations, and to settle displaced populations, or to facilitate their return to their countries of origin, and ensure that their basic learning needs are met. Only a stable and peaceful environment can create the conditions in which every human being, child and adult alike, may benefit from the goals of this Declaration.

We, the participants in the World Conference on Education for All, reaffirm the right of all people to education. This is the foundation of our determination, singly and together, to ensure education for all.

We commit ourselves to act cooperatively through our own spheres of responsibility, taking all necessary steps to achieve the goals of education for all. Together we call on governments, concerned organizations and individuals to join in this urgent undertaking.

The basic learning needs of all can and must be met. There can be no more meaningful way to begin the International Literacy Year, to move forward the goals of the United Nations Decade of Disabled Persons (1983–92), the World Decade for Cultural Development (1988–97), the Fourth United Nations Development Decade (1991–2000), of the Convention on the Elimination of Discrimination against Women and the Forward-Looking Strategies for the Advancement of Women, and of the Convention on the Rights of the Child. There has never been a more propitious time to commit ourselves to providing basic learning opportunities for all the people of the world.

We adopt, therefore, this **World Declaration on Education for All: Meeting Basic Learning Needs** and agree on the **Framework for Action to Meet Basic Learning Needs,** to achieve the goals set forth in this **Declaration.**

Appendix II

FRAMEWORK FOR ACTION
TO MEET BASIC LEARNING NEEDS
Guidelines for implementing the *World Declaration on Education for All*

INTRODUCTION

1. This *Framework for Action to Meet Basic Learning Needs* derives from the *World Declaration on Education for All,* adopted by the World Conference on Education for All, which brought together representatives of governments, international and bilateral development agencies, and non-governmental organizations. Based on the best collective knowledge and the commitment of these partners, the *Framework* is intended as a reference and guide for national governments, international organizations, bilateral aid agencies, non-governmental organizations (NGOs), and all those committed to the goal of Education for All in formulating their own plans of action for implementing the *World Declaration.* It describes three broad levels of concerted action: (i) direct action within individual countries, (ii) co-operation among groups of countries sharing certain characteristics and concerns, and (iii) multilateral and bilateral co-operation in the world community.

2. Individual countries and groups of countries, as well as international, regional and national organizations, may use the *Framework* to develop their own specific plans of action and programmes in line with their particular objectives, mandates and constituencies. This indeed has been the case in the ten-year experience of the UNESCO Major Project on Education for Latin America and the Caribbean. Further examples of such related initiatives are the UNESCO Plan of Action for the Eradication of Illiteracy by the Year 2000, adopted by the UNESCO General Conference at its 25th session (1989); the ISESCO Special Programme (1990); the current review by the World Bank of its policy for primary education; and USAID's Programme for Advancing Basic Education and Literacy. In so far as such plans of action, policies and programmes are consistent with this Framework, efforts throughout the world to meet basic learning needs will converge and facilitate co-operation.

3. While countries have many common concerns in meeting the basic learning needs of their populations, these concerns do, of course, vary in nature and intensity from country to country depending on the actual status of basic education as well as the cultural and socio-economic context. Globally by the year 2000, if enrolment rates remain at current levels, there will be more than 160 million children without access to primary schooling simply because of population growth. In much of sub-Saharan Africa, and in many low income countries elsewhere, the provision of universal primary education for rapidly growing numbers of children remains a long-term challenge. Despite progress in promoting adult literacy, most of these same countries still have high illiteracy rates, while the numbers of functionally illiterate adults continue to grow and constitute a major social problem in much of Asia and the Arab States, as well as in Europe and North America. Many people are denied equal access on grounds of race, gender, language, disability, ethnic origin, or political convictions. In addition, high drop-out rates and poor learning achievement are commonly recognized problems throughout the world. These very general characterizations illustrate the need for decisive action on a large scale, with clear goals and targets.

GOALS AND TARGETS

4. The **ultimate goal** affirmed by the *World Declaration on Education for All* is to meet the basic learning needs of all children, youth, and adults. The long-term effort to attain that goal can be maintained more effectively if **intermediate goals** are established and progress toward these goals is measured. Appropriate authorities at the national and subnational levels may establish such intermediate goals, taking into account the objectives of the *Declaration* as well as overall national development goals and priorities.

5. Intermediate goals can usefully be formulated as specific targets within national and subnational plans for educational development. Such targets usually (i) specify expected attainments and outcomes in reference to terminal performance specifications within an appropriate time-frame, (ii) specify priority categories (e.g. the poor, the disabled), and (iii) are formulated in terms such that progress towards them can be observed and measured. These targets represent a 'floor' (but not a 'ceiling') for the continued development of education programmes and services.

6. Time-bound targets convey a sense of urgency and serve as a reference against which indices of implementation and accomplishment can be compared. As societal conditions change, plans and targets can be reviewed and updated. Where basic education efforts must be focused to meet the needs of specific social groups or population categories, linking targets to such priority categories of learners can help to maintain the attention of planners, practitioners and evaluators on meeting the needs of these learners. Observable and measurable targets assist in the objective evaluation of progress.

7. Targets need not be based solely on current trends and resources. Initial targets can reflect a realistic appraisal of the possibilities presented by the *Declaration* to mobilize additional human, organizational and financial capacities within a co-operative commitment to human development. Countries with low literacy and school enrolment rates, and very limited national resources, will need to make hard choices in establishing national targets within a realistic time frame.

8. Countries may wish to set their own targets for the 1990s in terms of the following proposed dimensions:

(1) Expansion of early-childhood care and developmental activities, including family and community interventions, *especially* for poor, disadvantaged and disabled children.

(2) Universal access to, and completion of, primary education (or whatever higher level of education is considered as 'basic') by the year 2000.

(3) Improvement in learning achievement such that an agreed percentage of an appropriate age cohort (e.g. 80 per cent of 14 - year-olds) attains or surpasses a defined level of necessary learning achievement.

(4) Reduction of the adult illiteracy rate (the appropriate age-group to be determined in each country) to, say, one-half its 1990 level by the year 2000, with sufficient emphasis on female literacy to significantly reduce the current disparity between male and female illiteracy rates.

(5) Expansion of provisions of basic education and training in other essential skills required by youth and adults, with programme effectiveness assessed in terms of behavioural changes and impacts on health, employment and productivity.

9. Levels of performance in the above should be established, when possible. These should be consistent with the focus of basic education both on universalization of access and on learning acquisition, as joint and inseparable concerns. In all cases, the performance targets should include equity by gender. However, setting levels of performance and of the proportions of participants who are expected to reach these levels in specific basic education programmes must be an autonomous task of individual countries.

PRINCIPLES OF ACTION

10. The first step consists in identifying, preferably through an active participatory process involving groups and the community, the traditional learning systems which exist in the society, and the actual demand for basic education services, whether expressed in terms of formal schooling or non-formal education programmes. Addressing the basic learning needs of all means: early childhood care and development opportunities; relevant, quality primary schooling or equivalent out-of-school education for children; and literacy, basic knowledge and life-skills training for youth and adults. It also means capitalizing on the use of traditional and modern information media and technologies to educate the public on matters of social concern and to support basic education activities. These complementary components of basic education need to be designed to ensure equitable access, sustained participation, and effective learning achievement. Meeting basic learning needs also involves action to enhance the family and community environments for learning and to correlate basic education and the larger socio-economic context. The complementary and synergistic effects of related human resources investments in population, health and nutrition should be recognized.

11. Because basic learning needs are complex and diverse, meeting them requires multisectoral strategies and action which are integral to overall development efforts. Many partners must join with the education authorities, teachers, and other educational personnel in developing basic education if it is to be seen, once again, as the responsibility of the entire society. This implies the active involvement of a wide range of partners – families, teachers, communities, private enterprises (including those involved in information and communication), government and non-governmental organizations, institutions, etc. – in planning, managing and evaluating the many forms of basic education.

12. Current practices and institutional arrangements for delivering basic education, and the existing mechanisms for co-operation in this regard, should be carefully evaluated before new institutions or mechanisms are created. Rehabilitating dilapidated schools and improving the training and working conditions of teachers and literacy workers, building on existing learning schemes, are likely to bring greater and more immediate returns on investment than attempts to start afresh.

13. Great potential lies in possible joint actions with non-governmental organizations on all levels. These autonomous bodies, while advocating independent and critical public views, might play roles in monitoring, research, training and material production for the sake of non-formal and lifelong educational processes.

14. The primary purpose of bilateral and multilateral co-operation should appear in a true spirit of partnership – it should not be to transplant familiar models, but to help develop the endogenous capacities of national authorities and their in-country partners to meet basic learning needs effectively. Action and resources should be used to strengthen essential features of basic education services, focusing on managerial and analytical capacities, which can stimulate further developments. International co-operation and funding can be particularly valuable in supporting major reforms or sectoral adjustments, and in helping to develop and test innovative approaches to teaching and management, where new approaches need to be tried and/or extraordinary levels of expenditure are involved and where knowledge of relevant experiences elsewhere can often be useful.

15. International co-operation should give priority to the countries currently least able to meet the basic learning needs of their populations. It should also help countries redress their internal disparities in educational opportunity. Because two-thirds of illiterate adults and out-of-school children are female, wherever such inequities exist, a most urgent priority is to improve access to education for girls and women, and to remove every obstacle that hampers their active participation.

1. PRIORITY ACTION AT NATIONAL LEVEL

16. Progress in meeting the basic learning needs of all will ultimately depend on the actions taken within individual countries. While regional and international co-operation and financial assistance can support and facilitate such actions, government authorities, communities and their several in-country partners are the key agents for improvement, and national governments have the main responsibility for coordinating the effective use of internal and external resources. Given the diversity of countries' situations, capacities and development plans and goals, this *Framework* can only suggest certain areas that merit priority attention. Each country will determine for itself what specific actions beyond current efforts may be necessary in each of the following areas.

1.1 Assessing Needs and Planning Action

17. To achieve the targets set for itself, each country is encouraged to develop or update comprehensive and long-term plans of action (from local to national levels) to meet the learning needs it has defined as 'basic'. Within the context of existing education-sector and general development plans and strategies, a plan of action for basic education for all will necessarily be multisectoral, to guide activities in the sectors involved (e.g. education, information, communications/media, labour, agriculture, health). Models of strategic planning, by definition, vary. However, most of them involve constant adjustments among objectives, resources, actions, and constraints. At the national level, objectives are normally couched in broad terms and central government resources are also determined, while actions are taken at the local level. Thus, local plans in the same national setting will naturally differ not only in scope but in content. National and subnational frameworks and local plans should allow for varying conditions and circumstances. These might, therefore, specify:

- ❏ studies for the evaluation of existing systems (analysis of problems, failures and successes);
- ❏ the basic learning needs to be met, including cognitive skills, values, attitudes, as well as subject knowledge;
- ❏ the languages to be used in education;
- ❏ means to promote the demand for, and broadscale participation in, basic education;
- ❏ modalities to mobilize family and local community support;
- ❏ targets and specific objectives;

❑ the required capital and recurrent resources, duly costed, as well as possible measures for cost effectiveness;

❑ indicators and procedures to be used to monitor progress in reaching the targets;

❑ priorities for using resources and for developing services and programmes over time;

❑ the priority groups that require special measures;

❑ the kinds of expertise required to implement the plan;

❑ institutional and administrative arrangements needed;

❑ modalities for ensuring information sharing among formal and other basic education programmes; and

❑ an implementation strategy and timetable.

1.2 Developing a Supportive Policy Environment

18. A multisectoral plan of action implies adjustments to sectoral policies so that sectors interact in a mutually supportive and beneficial manner in line with the country's overall development goals. Action to meet basic learning needs should be an integral part of a country's national and subnational development strategies, which should reflect the priority given to human development. Legislative and other measures may be needed to promote and facilitate co-operation among the various partners involved. Advocacy and public information about basic education are important in creating a supportive policy environment at national, subnational and local levels.

19. Four specific steps that merit attention are: (i) initiation of national and subnational level activities to create a broad, public recommitment to the goal of education for all; (ii) reduction of inefficiency in the public sector and exploitative practices in the private sector; (iii) provision of improved training for public administrators and of incentives to retain qualified women and men in public service; and (iv) provision of measures to encourage wider participation in the design and implementation of basic education programmes.

1.3 Designing Policies to Improve Basic Education

20. The preconditions for educational quality, equity and efficiency, are set in the early childhood years, making attention to early childhood care and development essential to the achievement of basic education goals. Basic education must correspond to actual needs, interests, and problems of the participants in the learning process. The relevance of curricula could be enhanced by linking literacy and numeracy skills and scientific concepts with learners' concerns and earlier experiences, for example, nutrition, health, and work. While many needs vary considerably within and among countries, and therefore much of a curriculum should be sensitive to local conditions, there are also many universal needs and shared concerns which should be addressed in education curricula and in educational messages. Issues such as protecting the environment, achieving a balance between population and resources, slowing the spread of AIDS, and preventing drug abuse are everyone's issues.

21. Specific strategies addressed to improve the conditions of schooling may focus on: learners and the learning process, personnel (teachers, administrators, others), curriculum and learning assessment, materials and physical facilities. Such strategies should be conducted in an integrated manner; their design, management, and evaluation should take into account the acquisition of knowledge and problem-solving skills as well as the social, cultural, and ethical dimensions of human development.

Depending on the outcomes desired, teachers have to be trained accordingly, whilst benefiting from in-service programmes as well as other incentives of opportunity which put a premium on the achievement of these outcomes; curriculum and assessment must reflect a variety of criteria while materials – and conceivably buildings and facilities as well – must be adapted along the same lines. In some countries, the strategy may include ways to improve conditions for teaching and learning such that absenteeism is reduced and learning time increased. In order to meet the educational needs of groups not covered by formal schooling, appropriate strategies are needed for non-formal education. These include but go far beyond the aspects described above, but may also give special attention to the need for co-ordination with other forms of education, to the support of all interested partners, to sustained financial resources and to full community participation. An example for such an approach applied to literacy can be found in UNESCO's Plan of Action for the Eradication of Illiteracy by the Year 2000. Other strategies still may rely on the media to meet the broader education needs of the entire community. Such strategies need to be linked to formal education, non-formal education or a combination of both. The use of the communications media holds a tremendous potential to educate the public and to share important information among those who need to know.

22. Expanding access to basic education of satisfactory quality is an effective way to improve equity. Ensuring that girls and women stay involved in basic education activities until they have attained at least the agreed necessary level of learning, can be encouraged through special measures designed, wherever possible, in consultation with them. Similar approaches are necessary to expand learning opportunities for various disadvantaged groups.

23. Efficiency in basic education does not mean providing education at the lowest cost, but rather the most effective use of all resources (human, organizational, and financial) to produce the desired levels of access and of necessary learning achievement. The foregoing considerations of relevance, quality, and equity are not alternatives to efficiency but represent the specific conditions within which efficiency should be attained. For some programmes, efficiency will require more, not fewer, resources. However, if existing resources can be used by more learners, or if the same learning targets can be reached at a lower cost per learner, then the capacity of basic education to meet the targets of access and achievement for presently underserved groups can be increased.

1.4 Improving Managerial, Analytical and Technological Capacities

24. Many kinds of expertise and skills will be needed to carry out these initiatives. Managerial and supervisory personnel, as well as planners, school architects, teacher educators, curriculum developers, researchers, analysts, etc., are important for any strategy to improve basic education, but many countries do not provide specialized training to prepare them for their responsibilities; this is especially true in literacy and other out-of-school basic education activities. A broadening of outlook toward basic education will be a crucial prerequisite to the effective co-ordination of efforts among these many participants, and strengthening and developing capacities for planning and management at regional and local levels with a greater sharing of responsibilities will be necessary in many countries. Pre- and in-service training programmes for key personnel should be initiated, or strengthened where they do exist. Such training can be particularly useful in introducing administrative reforms and innovative management and supervisory techniques.

25. The technical services and mechanisms to collect, process and analyse data pertaining to basic education can be improved in all countries. This is an urgent task in many countries that have little reliable information and/or research on the basic learning needs of their people and on existing basic education activities. A country's information and knowledge base is vital in preparing and implementing a plan of action. One major implication of the focus on learning acquisition is that systems have to be developed and improved to assess the performance of individual learners and delivery mechanisms. Process and outcome assessment data should serve as the core of a management information system for basic education.

26. The quality and delivery of basic education can be enhanced through the judicious use of instructional technologies. Where such technologies are not now widely used, their introduction will require the selection and/or development of suitable technologies, acquisition of the necessary equipment and operating systems, and the recruitment or training of teachers and other educational personnel to work with them. The definition of a suitable technology varies by societal characteristics and will change rapidly over time as new technologies (educational radio and television, computers, and various audio-visual instructional devices) become less expensive and more adaptable to a range of environments. The use of modern technology can also improve the management of basic education. Each country may re-examine periodically its present and potential technological capacity in relation to its basic educational needs and resources.

1.5 Mobilizing Information and Communication Channels

27. New possibilities are emerging which already show a powerful impact on meeting basic learning needs, and it is clear that the educational potential of these new possibilities has barely been tapped. These new possibilities exist largely as a result of two converging forces, both recent by-products of the general development process. First, the quantity of information available in the world – much of it relevant to survival and basic well-being – is exponentially greater than that available only a few years ago, and the rate of its growth is accelerating. A synergistic effect occurs when important information is coupled with a second modern advance – the new capacity to communicate among the people of the world. The opportunity exists to harness this force and use it positively, consciously, and with design, in order to contribute to meeting defined learning needs.

1.6 Building Partnerships and Mobilizing Resources

28. In designing the plan of action and creating a supportive policy environment for promoting basic education, maximum use of opportunities should be considered to expand existing collaborations and to bring together new partners: e.g. family and community organizations, non-governmental and other voluntary associations, teachers' unions, other professional groups, employers, the media, political parties, co-operatives, universities, research institutions, religious bodies, as well as education authorities and other government departments and services (labour, agriculture, health, information, commerce, industry, defence, etc.). The human and organizational resources these domestic partners represent need to be effectively mobilized to play their parts in implementing the plan of action. Partnerships at the community level and at the intermediate and national levels should be encouraged; they can help harmonize activities, utilize resources more effectively, and mobilize additional financial and human resources where necessary.

29. Governments and their partners can analyse the current allocation and use of financial and other resources for education and training in different sectors to determine if additional support for basic education can be obtained by (i) improving efficiency, (ii) mobilizing additional sources of funding within and outside the

government budget, and (iii) allocating funds within existing education and training budgets, taking into account efficiency and equity concerns. Countries where the total fiscal support for education is low need to explore the possibility of reallocating some public funds used for other purposes to basic education.

30. Assessing the resources actually or potentially available for basic education and comparing them to the budget estimates underlying the plan of action, can help identify possible inadequacies of resources that may affect the scheduling of planned activities over time or may require choices to be made. Countries that require external assistance to meet the basic learning needs of their people can use the resource assessment and plan of action as a basis for discussions with their international partners and for co-ordinating external funding.

31. The individual learners themselves constitute a vital human resource that needs to be mobilized. The demand for, and participation in, learning opportunities cannot simply be assumed, but must be actively encouraged. Potential learners need to see that the benefits of basic education activities exceed the costs the participants must bear, such as earnings foregone and reduced time available for community and household activities and for leisure. Women and girls especially may be deterred from taking full advantage of basic education opportunities because of reasons specific to individual cultures. Such barriers to participation may be overcome through the use of incentives and by programmes adapted to the local context and seen by the learners, their families and communities to be 'productive activities'. Also, learners tend to benefit more from education when they are partners in the instructional process, rather than treated simply as 'inputs' or 'beneficiaries'. Attention to the issues of demand and participation will help assure that the learners' personal capacities are mobilized for education.

32. Family resources, including time and mutual support, are vital for the success of basic education activities. Families can be offered incentives and assistance to ensure that their resources are invested to enable all family members to benefit as fully and equitably as possible from basic education opportunities.

33. The pre-eminent role of teachers as well as of other educational personnel in providing quality basic education needs to be recognized and developed to optimize their contribution. This must entail measures to respect teachers' trade union rights and professional freedoms, and to improve their working conditions and status, notably in respect to their recruitment, initial and in-service training, remuneration and career development possibilities, as well as to allow teachers to fulfil their aspirations, social obligations, and ethical responsibilities.

34. In partnerships with school and community workers, libraries need to become a vital link in providing educational resources for all learners – pre-school through adulthood – in school and non-school settings. There is therefore a need to recognize libraries as invaluable information resources.

35. Community associations, co-operatives, religious bodies, and other non-governmental organizations also play important roles in supporting and in providing basic education. Their experience, expertise, energy and direct relationships with various constituencies are valuable resources for identifying and meeting basic learning needs. Their active involvement in partnerships for basic education should be promoted through policies and mechanisms that strengthen their capacities and recognize their autonomy.

2. PRIORITY ACTION AT REGIONAL LEVEL

36. Basic learning needs must be met through collaborative action within each country, but there are many forms of co-operation between countries with similar conditions and concerns that could, and do, assist in this endeavour. Regions have already developed plans, such as the Jakarta Plan of Action on Human Resources, adopted by ESCAP in 1988. By exchanging information and experience, pooling expertise, sharing facilities, and undertaking joint activities, several countries, working together, can increase their resource base and lower costs to their mutual benefit. Such arrangements are often set up among neighbouring countries (subregional), among all countries in a major geo-cultural region, or among countries sharing a common language or having cultural and commercial relations. Regional and international organizations often play an important role in facilitating such co-operation between countries. In the following discussion, all such arrangements are included in the term 'regional'. In general, existing regional partnerships will need to be strengthened and provided with the resources necessary for their effective functioning in helping countries meet the basic learning needs of their populations.

2.1 Exchanging Information, Experience and Expertise

37. Various regional mechanisms, both intergovernmental and non-governmental, promote cooperation in education and training, health, agricultural development, research and information, communications, and in other fields relevant to meeting basic learning needs. Such mechanisms can be further developed in response to the evolving needs of their constituents. Among several possible examples are the four regional programmes established through UNESCO in the 1980s to support national efforts to achieve universal primary education and eliminate adult illiteracy:

❑ Major Project in the Field of Education in Latin America and the Caribbean;

❑ Regional Programme for the Eradication of Illiteracy in Africa;

❑ Asia-Pacific Programme of Education for All (APPEAL);

❑ Regional Programme for the Universalization and Renewal of Primary Education and the Eradication of Illiteracy in the Arab States by the Year 2000 (ARABUPEAL).

38. In addition to the technical and policy consultations organized in connection with these programmes, other existing mechanisms can be used for consulting on policy issues in basic education. The conferences of ministers of education organized by UNESCO and by several regional organizations, the regular sessions of the regional commissions of the United Nations, and certain transregional conferences organized by the Commonwealth Secretariat, CONFEMEN (standing conference of ministers of education of francophone countries), the Organization of Economic Co-operation and Development (OECD), and the Islamic Educational, Scientific and Cultural Organization (ISESCO), could be used for this purpose as needs arise. In addition, numerous conferences and meetings organized by non-governmental bodies provide opportunities for professionals to share information and views on technical and policy issues. The conveners of these various conferences and meetings may consider ways of extending participation, where appropriate, to include representatives of other constituencies engaged in meeting basic learning needs.

39. Full advantage should be taken of opportunities to share media messages or programmes that can be exchanged among countries or collaboratively developed, especially where language and cultural similarities extend beyond political boundaries.

2.2 Undertaking Joint Activities

40. There are many possible joint activities among countries in support of national efforts to implement action plans for basic education. Joint activities should be designed to exploit economies of scale and the comparative advantages of participating countries. Six areas where this form of regional collaboration seems particularly appropriate are: (i) training of key personnel, such as planners, managers, teacher educators, researchers, etc.; (ii) efforts to improve information collection and analysis; (iii) research; (iv) production of educational materials; (v) use of communication media to meet basic learning needs; and (vi) management and use of distance education services. Here, too, there are several existing mechanisms that could be utilized to foster such activities, including UNESCO's International Institute of Educational Planning and its networks of trainees and research as well as IBE's information network and the Unesco Institute for Education, the five networks for educational innovation operating under UNESCO's auspices, the research and review advisory groups (RRAGs) associated with the International Development Research Centre, the Commonwealth of Learning, the Asian Cultural Centre for UNESCO, the participatory network established by the International Council for Adult Education, and the International Association for the Evaluation of Educational Achievement, which links major national research institutions in some thirty-five countries. Certain multilateral and bilateral development agencies that have accumulated valuable experience in one or more of these areas might be interested in participating in joint activities. The five United Nations regional commissions could provide further support to such regional collaboration, especially by mobilizing policy-makers to take appropriate action.

3. PRIORITY ACTION AT WORLD LEVEL

41. The world community has a well-established record of co-operation in education and development. However, international funding for education stagnated during the early 1980s; at the same time, many countries have been handicapped by growing debt burdens and economic relationships that channel their financial and human resources to wealthier countries. Because concern about the issues in basic education is shared by industrialized and developing countries alike, international co-operation can provide valuable support for national efforts and regional actions to implement the expanded vision of basic Education for All. Time, energy, and funding directed to basic education are perhaps the most profound investment in people and in the future of a country which can be made; there is a clear need and strong moral and economic argument for international solidarity to provide technical cooperation and financial assistance to countries that lack the resources to meet the basic learning needs of their populations.

3.1 Co-operation within the International Context

42. Meeting basic learning needs constitutes a common and universal human responsibility. The prospects for meeting basic learning needs around the world are determined in part by the dynamics of international relations and trade. With the current relaxation of tensions and the decreasing number of armed conflicts, there are now real possibilities to reduce the tremendous waste of military spending and shift those resources into socially useful areas, including basic education. The urgent task of meeting basic learning needs may require such a reallocation between sectors, and the world community and individual governments need to plan this conversion of resources for peaceful uses with courage and vision, and in a thoughtful and careful manner. Similarly, international measures to reduce or eliminate current imbalances in trade relations and to reduce debt burdens must be taken to enable many low-income countries to rebuild their own economies, releasing and retaining human and financial resources needed for development and for providing basic

education to their populations. Structural adjustment policies should protect appropriate funding levels for education.

3.2 Enhancing National Capacities

43. International support should be provided, on request, to countries seeking to develop the national capacities needed for planning and managing basic education programmes and services (see section 1.4). Ultimate responsibility rests within each nation to design and manage its own programmes to meet the learning needs of all its population. International support could include training and institutional development in data collection, analysis and research, technological innovation, and educational methodologies. Management information systems and other modern management methods could also be introduced, with an emphasis on low- and middle-level managers. These capabilities will be even more in demand to support quality improvements in primary education and to introduce innovative out-of-school programmes. In addition to direct support to countries and institutions, international assistance can also be usefully channelled to support the activities of international, regional and other intercountry structures that organize joint research, training and information exchanges. The latter should be based on, and supported by, existing institutions and programmes, if need be improved and strengthened, rather than on the establishment of new structures. Support will be especially valuable for technical co-operation among developing countries, among whom both circumstances and resources available to respond to circumstances are often similar.

3.3 Providing Sustained Long-term Support for National and Regional Actions

44. Meeting the basic learning needs of all people in all countries is obviously a long-term undertaking. This *Framework* provides guidelines for preparing national and subnational plans of action for the development of basic education through a long-term commitment of governments and their national partners to work together to reach the targets and achieve the objectives they set for themselves. International agencies and institutions, many of which are sponsors, co-sponsors, and associate sponsors of the World Conference on Education for All, should actively seek to plan together and sustain their long-term support for the kinds of national and regional actions outlined in the preceding sections. In particular, the core sponsors of the Education for All initiative (UNDP, UNESCO, UNICEF, World Bank) affirm their commitments to supporting the priority areas for international action presented below and to making appropriate arrangements for meeting the objectives of Education for All, each acting within its mandate, special responsibilities, and decisions of its governing bodies. Given that UNESCO is the UN agency with a particular responsibility for education, it will give priority to implementing the *Framework for Action* and to facilitating provision of services needed for reinforced international co-ordination and co-operation.

45. Increased international funding is needed to help the less-developed countries implement their own autonomous plans of action in line with the expanded vision of basic Education for All. Genuine partnerships characterized by co-operation and joint long-term commitments will accomplish more and provide the basis for a substantial increase in overall funding for this important subsector of education. Upon governments' request, multilateral and bilateral agencies should focus on supporting priority actions, particularly at the country level (see section I), in areas such as the following:

(a) *The design or updating of national and subnational multisectoral plans of action* (see section 1.1), which will need to be elaborated very early in the 1990s. Both financial and technical assistance are needed by many developing countries, particularly in collecting and analysing data, as well as in organizing domestic consultations.

(b) *National efforts and related intercountry co-operation to attain a satisfactory level of quality and relevance in primary education* (cf. sections 1.3 and 2 above). Experiences involving the participation of families, local communities, and non-governmental organizations in increasing the relevance and improving the quality of education could profitably be shared among countries.

(c) *The provision of universal primary education in the economically poorer countries.* International funding agencies should consider negotiating arrangements to provide long-term support, on a case-by-case basis, to help countries move toward universal primary education according to their timetable. The external agencies should examine current assistance practices in order to find ways of effectively assisting basic education programmes which do not require capital- and technology-intensive assistance, but often need longer-term budgetary support. In this context, greater attention should be given to criteria for development co-operation in education to include more than mere economic considerations.

(d) *Programmes designed to meet the basic learning needs of disadvantaged groups, out-of-school youth, and adults with little or no access to basic learning opportunities.* All partners can share their experience and expertise in designing and implementing innovative measures and activities, and focus their funding for basic education on specific categories and groups (e.g. women, the rural poor, the disabled) to improve significantly the learning opportunities and conditions available for them.

(e) *Education programmes for women and girls.* These programmes should be designed to eliminate the social and cultural barriers which have discouraged or even excluded women and girls from benefits of regular education programmes, as well as to promote equal opportunities in all aspects of their lives.

(f) *Education programmes for refugees.* The programmes run by such organizations as the United Nations High Commission for Refugees (UNHCR) and the United Nations Relief and Works Agency for Palestine (UNRWA) need more substantial and reliable long-term financial support for this recognized international responsibility. Where countries of refuge need international financial and technical assistance to cope with the basic needs of refugees, including their learning needs, the international community can help to share this burden through increased co-operation. The world community will also endeavour to ensure that people under occupation or displaced by war and other calamities continue to have access to basic education programmes that preserve their cultural identity.

(g) *Basic education programmes of all kinds in countries with high rates of illiteracy (as in Sub-Saharan Africa) and with large illiterate populations (as in South Asia).* Substantial assistance will be needed to reduce significantly the world's large number of illiterate adults.

(h) *Capacity building for research and planning and the experimentation of small-scale innovations.* The success of Education for All actions will ultimately be determined by the capacity of each country to design and implement programmes that reflect national conditions. A strengthened knowledge base nourished by research findings and the lessons of experiments and innovations as well as the availability of competent educational planners will be essential in this respect.

46. The co-ordination of external funding for education is an area of shared responsibility at country level, in which host governments need to take the lead to ensure the efficient use of resources in accordance with their priorities. Development funding agencies should explore innovative and more flexible modalities of co-operation in consultation with the governments and institutions with which they work and co-operate in regional initiatives, such as the Task Force of Donors to African Education. Other forums need to be developed in which

funding agencies and developing countries can collaborate in the design of intercountry projects and discuss general issues relating to financial assistance.

3.4 Consultations on Policy Issues

47. Existing channels of communication and forums for consultation among the many partners involved in meeting basic learning needs should be fully utilized in the 1990s to maintain and extend the international consensus underlying this *Framework for Action*. Some channels and forums, such as the biannual International Conference on Education, operate globally, while others focus on particular regions or groups of countries or categories of partners. In so far as possible, organizers should seek to co-ordinate these consultations and share results.

48. Moreover, in order to maintain and expand the Education for All initiative, the international community will need to make appropriate arrangements, which will ensure co-operation among the interested agencies using the existing mechanisms in so far as possible: (i) to continue advocacy of basic Education for All, building on the momentum generated by the World Conference; (ii) to facilitate sharing information on the progress made in achieving basic education targets set by countries for themselves and on the resources and organizational requirements for successful initiatives; (iii) to encourage new partners to join this global endeavour; and (iv) to ensure that all partners are fully aware of the importance of maintaining strong support for basic education.

INDICATIVE PHASING OF IMPLEMENTATION FOR THE 1990s

49. Each country, in determining its own intermediate goals and targets and in designing its plan of action for achieving them, will, in the process, establish a timetable to harmonize and schedule specific activities. Similarly, regional and international action will need to be scheduled to help countries meet their targets on time. The following general schedule suggests an indicative phasing during the 1990s; of course, certain phases may need to overlap and the dates indicated will need to be adapted to individual country and organizational contexts.

(1) Governments and organizations set specific targets and complete or update their plans of action to meet basic learning needs (cf. section 1.1); take measures to create a supportive policy environment (1.2); devise policies to improve the relevance, quality, equity and efficiency of basic education services and programmes (1.3); design the means to adapt information and communication media to meet basic learning needs (1.5) and mobilize resources and establish operational partnerships (1.6). International partners assist countries, through direct support and through regional co-operation, to complete this preparatory stage. (1990-1991)

(2) Development agencies establish policies and plans for the 1990s, in line with their commitments to sustained, long-term support for national and regional actions and increase their financial and technical assistance to basic education accordingly (3.3). All partners strengthen and use relevant existing mechanisms for consultation and co-operation and establish procedures for monitoring progress at regional and international levels. (1990-1993)

(3) First stage of implementation of plans of action: national co-ordinating bodies monitor implementation and propose appropriate adjustments to plans. Regional and international supporting actions are carried out. (1990-1995)

(4) Governments and organizations undertake mid-term evaluation of the implementation of their respective plans and adjust them as needed. Governments, organizations and development agencies undertake comprehensive policy reviews at regional and global levels. (1995-1996)

(5) Second stage of implementation of plans of action and of supporting action at regional and international levels. Development agencies adjust their plans as necessary and increase their assistance to basic education accordingly. (1996-2000)

(6) Governments, organizations and development agencies evaluate achievements and undertake comprehensive policy review at regional and global levels. (2000-2001)

50. There will never be a better time to renew commitment to the inevitable and long-term effort to meet the basic learning needs of all children, youth and adults. This effort will require a much greater and wiser investment of resources in basic education and training than ever before, but benefits will begin accruing immediately and will extend well into the future – where the global challenges of today will be met, in good measure, by the world community's commitment and perseverance in attaining its goal of education for all.

TOPIC 1

General Bibliography

Inter-Agency Commission WCEFA. 1990. *Meeting Basic Learning Needs: A Vision for the 1990s (Background Document)*. New York, Inter-Agency Commission (UNDP, UNESCO, UNICEF, WORLD BANK).

Inter-Agency Commission WCEFA. 1990. *World Conference on Education for All: Meeting Basic Learning Needs, Final Report*. New York, Inter-Agency Commission (UNDP, UNESCO, UNICEF, WORLD BANK).

UNESCO. 1991. *Education for All: Purpose and Context, Monograph I*. Paris, UNESCO.

UNESCO. 1992. *Education for All: An Expanded Vision, Monograph II*. Paris, UNESCO.

UNESCO. 1992. *Education for All: The Requirements, Monograph III*. Paris, UNESCO.

Access and Equity

UNRWA/M. Arjavirtar

CONTENTS

Access and Equity

Introduction

Education is a basic human right. The 1989 United Nations Convention on the Rights of the Child reaffirmed the right of every child to education irrespective of colour, race, creed, sex, ability, disability and socio-economic status. Girls and women, the very poor, persons with disabilities and members of minority ethnic groups have a fundamental right to receive education. Equality of educational opportunity means both equal access to schooling and equal treatment within the school. For members of these groups fortunate enough to receive some education, the quality of that education may be poor; leading to unequal educational outcomes and life opportunities for them. Article 26 of the Universal Declaration of Human Rights is concerned with universalizing access to and promoting equity in education, emphasizing that Education for All means ensuring that particular attention is directed to the education of the under-served. Among the under-served are girls and women, the very poor, persons with disabilities and marginalized minority ethnic groups.

As well as being a basic human right, education is a necessary condition for the upward social mobility of disadvantaged members of society. Knowledge gained through education is a means by which they can improve the quality of their lives. Equality of access to education and equal treatment in the school are thus essential conditions for all forms of social equity. They are important not only to individuals personally but also to their families and the wider community in which they are situated. Equal educational opportunities for all maximizes the possibility of equal educational outcomes, and thus equal opportunities for all members of society to secure employment. This in turn enables individuals to support themselves and their families and affords them access to all the goods and services available in their societies, including education for their children.

In many countries, women are responsible for the welfare of their families and they are often the sole bread-winners in the family. The education of girls and women leads to a better quality of life in general. Child spacing, lower infant mortality, improved nutrition and hygiene are all results of education. Poverty and ignorance, which usually go hand in hand, are the main causes of ill health and high mortality among the members of these groups.

These socially and economically disadvantaged groups have often been undervalued or ignored as producers of wealth. Equality of educational opportunity is necessary if they are to become self-sufficient producers of wealth, rather than remaining dependent on charity, the goodwill of individuals, organizations and the state. Furthermore, as educated and economically self-sufficient members of society they can also contribute to the progress, well-being and development of the wider society of which they are a part.

This topic is divided into three modules: Equity and Gender; Equity and People with Disabilities; and Equity and the Very Poor, Refugees and Minorities. The total study time required for the three modules is about eight hours.

TOPIC 2

Module 1
Equity and Gender

Learning Outcomes

By the end of this module you should have:

❑ become aware that gender and sex are different and that gender is socially constructed and transmitted during the process of socialization;

❑ reached a greater awareness of your own assumptions about the roles and abilities of women and girls;

❑ realized that as agents of socialization in schools you may contribute to inequality of opportunity and the academic underachievement of girls;

❑ considered forms of classroom interaction and ways of teaching which would motivate girls and also break down gender stereotypes;

❑ considered possible means by which gender awareness can be promoted and gender as an issue can be introduced to colleagues and pupils' parents;

❑ considered the role of teachers in initiating change in schools and influencing education policy.

Content

The Social Construction of Gender

In nearly all societies women and men have a different status and play different roles. There is women's work and there is men's work. Women and men behave differently, dress differently, have different attitudes and interests and have different leisure activities. In many societies men dominate women, having greater access to, and control over, scarce resources, wealth and power, and so women are often powerless and dependent on their male kin. The sexual division of labour and inequalities between men and women have been explained in a number of ways.

Explanations for differences in gender roles and status

Contrary to traditionally held beliefs that the differences between male and female behaviour, gender roles and status are biologically or genetically determined, recent research has revealed that gender is to a large extent socially constructed. Gender roles and status vary widely from one society to another, often as a consequence of prevailing religious or ethical concepts.

Activity 2.1.1

Go through Reading 2.1, Some 'Explanations' for Differences in Gender Roles (page 24).

Working in small groups, discuss:

1. The gene-biology argument.

2. The cultural argument.

What conclusions do you reach?

What other 'explanations' can you give for differences in gender roles? Discuss your findings with the group as a whole.

The following activity should help you to become aware that gendering begins at birth and that many assumptions about gender should not be taken for granted.

Activity 2.1.2

Preparing for a Baby

In this activity two couples are preparing for the birth of a child. One couple is preparing for a boy; the other for a girl. Each couple is engaged in a discussion about:

(a) What provisions they need to buy for the baby, such as types of clothing, toys, materials needed to decorate the room the baby will occupy.

(b) What plans and dreams they have for the baby, such as education, profession, hobbies, interests.

(c) What each one will be able to contribute to the child's upbringing, e.g. what she/he will do for the child at home, what he/she will teach the child, what leisure or recreational activities each will do with the child.

(d) Why each one is happy that the child will be a boy/girl.

Form groups of two. Half the groups should discuss preparing for the birth of a girl; the other half for the birth of a boy. Use (a) to (d) above to guide your discussion.

❑ What conclusions did you draw?

❑ At what stage does gendering begin?

❑ Which sex would you prefer for your own baby and why?

Acquiring gender identities and learning gender roles

The conceptions that individuals have of themselves as certain types of people, good or bad, clever or stupid, male or female, are acquired during interaction with others. This conception of self is the individual's identity. The social construction of self, including _gender identity_, begins during primary socialization within the family. The infant learns the expected ways of acting (what girls or boys should or should not do), and the ways of dressing, the manners and attitudes considered appropriate for girls and boys within the culture into which she or he was born. Parents reward and praise children for gender-appropriate behaviour, provide girls and boys with different types of toys and teach them different skills. In this way girls learn gender roles and ways of acting and thinking that are considered 'feminine'. Values associated with the feminine stereotype in Zimbabwe, for example, as in many other parts of the world, are those of modesty, docility and submissiveness, and behaviour of girls which conforms to these values is encouraged. Boys, on the other hand, may be encouraged to be active, competitive and assertive and to strive for success outside of the domestic sphere. On entering school, girls and boys bring with them the gender self-identities acquired during early socialization.

Activity 2.1.3

The Labelling Game

In this game each person is requested to draw three columns on a sheet of paper. The left hand column is headed BOYS, the middle column is headed BOYS & GIRLS, and the right hand column is headed GIRLS.

The leader holds up a series of flash cards, each one bearing an adjective. Everyone is requested to place the adjective in the column which they think is most appropriate, for example:

BOYS	BOYS & GIRLS	GIRLS
		pretty
handsome		
	nice-looking	

When the exercise has been completed with all the flash cards, the class will assess the pattern of usage of the adjectives in relation to gender and discuss how this may illustrate the way in which boys and girls are labelled as certain kinds of people.

Adjectives:

assertive, modest, gentle, tough, shy, confident, faint-hearted, independent, brave, dutiful, dependent, inventive, obedient, adventurous, competitive.

Gender in the School

The culture of the school may appear to be _gender-neutral._ In fact, however, a high value is placed on actions, attitudes and behaviour that in the wider society are considered 'masculine'. The school is a microcosm of the society in which it is located. The norms and values of the school, the school organization and hierarchy reflect those of the dominant culture.

Success at school is usually measured in terms of 'masculine' behaviours and attributes such as competitiveness, independence of thought, and active participation. Girls who are trained from birth to be modest, docile and obedient may find it very difficult to behave in ways that conform with the 'masculine' norms and values of the school. Not only is the school responsible for the cognitive development of pupils, but also for their social development, and here again the norms and values of the wider society are incorporated into the culture of the school. Girls are prepared for their adult social and family roles and are expected to behave in 'feminine' ways when relating to peers and staff members. Thus the school may in fact present two conflicting sets of values and norms for girl pupils to adhere to, the 'masculine' academic ones and the 'feminine' social ones.

Subjects and knowledge in the schools are also gender-typed. Certain subjects are usually perceived as 'masculine', for example maths, the sciences, building, and metalwork while others, such as typing and home economics, are generally perceived as 'feminine'. In schools most girls are directed into subjects and activities that are typed as 'feminine' and are excluded from acquiring knowledge and skills considered 'masculine' which are more highly valued and which prepare boys for adult occupations that are highly rewarded. Learning and teaching materials such as books may also reproduce gender in the school by depicting girls and women in stereo-typical feminine roles and with 'feminine' characteristics and behaviours. In these ways the school as a microcosm of society reproduces gender. The formal curriculum overtly and the _hidden curriculum_ covertly prepare girls and boys for their adult occupational and social gender roles.

The teacher as an agent of gender-socialization

Teachers too are members of the wider society in which the school is located. They have themselves been socialized into the dominant culture and so bring taken-for-granted assumptions about gender into the school and classroom with them. This means that they have different attitudes towards, and expectations of, male and female pupils which conform with the gender-stereotypes in the wider society. Their assumptions about what social behaviour is appropriate for girls and boys, as well as their assumptions about the differing aptitudes and abilities of girls and boys, may lead them to treat boys and girls in different ways. This leads to the further assumption that different levels and types of knowledge are necessary for girls and boys.

During interaction in the classroom, teacher expectations and attitudes are communicated to pupils. Since the child's identity in relation to the school, and her or his academic self-perception, is developed during interaction with teachers in the classroom, the teacher may have a profound influence on the performance of the pupil. Girls who are labelled less able than boys in the highly valued subjects typed as 'masculine', may develop a negative self-concept and become demotivated, which will cause them to perform poorly. In this way teachers may create a self-fulfilling prophecy.

Teachers may thus be responsible for the reinforcement of primary gender socialization, discrimination against girls in school and thus gender inequalities in education.

Activity 2.1.4

Go through Reading 2.2, Anesu' s Dream (page 25).

Working in small groups, rewrite the story of the dream in a positive way. In the new story substitute the negative responses given to Anesu by positive ones.

If you were her guidance and counselling teacher, what would you say to her?

Comment

Schools may contribute in a number of ways to the continuance of sex inequalities in the society. Highly valued skills and knowledge from which girls are excluded in the school are those which are highly rewarded in adult life. Women without these skills and knowledge are unable to compete with men for, and have less access to, employment and remain confined to the domestic sphere and dependent on men. Also, they remain outside the decision- and policy-making processes and so are unable to influence these in ways which would benefit girls and women. The whole cycle is repeated when women, having been subject to discrimination in education themselves, are unable to present alternative role models for their daughters. In this way gender inequalities in education are a contributory factor in the perpetuation of the social, economic and political inequalities between women and men in society.

The role of teachers in promoting equity

Teachers can make a profound contribution to the creation of a positive learning environment that motivates learning achievement in girls no less than in boys.

Activity 2.1.5

Group Discussion Topic: What the teacher can do

Form three groups to discuss the following questions for ten minutes. Each group should take one question and then report back to the group as a whole.

Once the teachers are aware of the way in which schools and teachers themselves reproduce gender and discriminate against girls they are in a position to take positive action to redress the situation.

Discuss the possible actions that you as a teacher could take:
- ❑ in the classroom;
- ❑ in the school;
- ❑ in your professional organization.

After your discussion, check how many of the following points have been raised:

In the classroom the teacher can:
- ❑ examine her or his attitudes and assumptions about gender;
- ❑ evaluate his or her actions and behaviour towards girls and boys in the classroom;
- ❑ consciously avoid the labelling of pupils on the basis of sex;
- ❑ avoid typing subjects and knowledge as 'masculine' or 'feminine';
- ❑ foster the development of positive self-concepts and self-confidence in girls;
- ❑ motivate girls to achieve by increasing his or her expectations of girls and taking time to help girls overcome problems arising from their gender socialization;
- ❑ increase gender awareness in the pupils by discussing the issue of gender in the classroom.

In the school the teacher can:
- ❑ initiate debate on gender issues at staff meetings;
- ❑ identify areas in which change is necessary;
- ❑ develop non-sexist learning aids for use in his or her subject;
- ❑ meet with parents of girls to counsel and advise them about the ways in which they can help their daughters to succeed.

In the professional organization the teacher can:
- ❑ introduce the issue of gender equity for discussion;
- ❑ press for the adoption of a specific policy on gender equity in education by the organization;
- ❑ encourage the organization to press for the adoption of policies and measures at government level aimed at achieving gender equity.

Activity 2.1.6

Go through Reading 2.3, Guidance for Planning and Teaching Lessons (page 25).

Write down:

1. How far you agree with the suggestions contained in the reading.

2. How far you, yourself, are already following such guidelines in your teaching.

3. Prepare an outline for a role-playing game in which *girls* play the part of doctors, pilots, engineers, etc.

Activity 2.1.7

Some suggested group activities and projects for breaking down gender stereotypes:

Class magazine

Involve the pupils in producing a class magazine. Appoint a *girl* as editor.

Appoint *girls* to write about: sport, class news, motor cars, and other topics usually associated with boys.
Appoint *boys* to write about: fashion, recipes, nutrition and health, and other topics usually associated with girls.

History project

Famous Women in Our Society. The children should do some research and write stories about prominent and famous women in their country, region, and community.

Practical and handicraft projects

Sewing:
Involve *all* the children in sewing small items for use at home.

Woodwork:
Involve *all* the children in the making of small articles for use in the home.

Recipe book:
Produce a class recipe book. Each child must contribute a recipe. Give the children a simple (and cheap) recipe to follow at home. For homework ask them to prepare the food and to serve it to the family and ask for a report from the parents.

Drama:
Divide the class into groups of girls and boys. Let them act out short scenes in which:
girls play the parts of doctors, detectives and explorers
and
boys the parts of nurses, detectives' assistants and explorers' assistants.

Working individually, write down your answers to the following questions.

❑   Do you find the suggestions helpful?

❑   Are you already undertaking some of them? Which?

❑   What other activities of a similar type can you suggest?
     Suggest at least two.

❑   Discuss your findings with the rest of the group.

Module 2
Equity and People
with Disabilities

It is estimated that 10 per cent of any population has a physical, mental or sensory disability, and would benefit from some form of intervention. At present no more than 1 per cent of disabled people in developing countries benefit from any active intervention services, including education. In other words, only between 1 and 2 million of the 100 to 200 million people with disabilities in developing countries who need services, such as education, are actually receiving them. People with disabilities are more often than not excluded from mainstream society and denied equal access to education, employment, family life and leisure activities. They are usually among the poorest and most discriminated-against members of society. They are denied equal access to education because of their disabilities. In the past, some of those with disabilities were educated in special schools and institutions for the disabled. The trend now is to integrate people with disabilities into the wider community. Special schools and institutions segregate and isolate persons with disabilities, and may deny them equal treatment and access to education.

Persons with disabilities should be integrated in ordinary schools to the greatest extent possible and should receive the necessary support while enjoying mainstream education. This will enable them to have equal educational opportunities. Equity in educational opportunity does not merely mean equal access to 'placement' in school situations. It also means that necessary support services should be provided. Children identified as having special problems should be provided with additional help in the areas in which they are experiencing difficulties.

Learning Outcomes

By the end of this module you should be able to:

❑   raise the awareness of colleagues, pupils and the community about implications of equity in education for those with disabilities;

❑   recognize conditions that deny those with disabilities access to education;

❑   recognize and accept that integration is the least restrictive approach to educational provision for the majority of those with disabilities.

Content

People with disabilities may be denied access to education because of the negative attitudes of teachers and other professional educators, which are based on a lack of awareness and understanding. Sometimes these attitudes stem from misinformation and unscientific cultural beliefs. To many people disability means inability. This is not the case – those with disabilities have abilities which can and should be developed to benefit not only themselves, but also their families and communities. Like the other disadvantaged groups discussed in this topic, persons with disabilities have a fundamental right to education and the benefits it brings. They have a right to all the goods and services available to the other members of society; a right to employment and to become self-supporting, contributing members of society. There is a need for a change in attitudes towards people with disabilities. Teachers have an important part to play in the changing of attitudes – their own, those of their pupils, and those of the communities in which they are situated.

Activity 2.2.1

Go through Reading 2.4, Education and Disability (page 26).

Working in groups, describe at least three things that can be done in your school to facilitate equal access for persons with:

❑ visual impairment;

❑ hearing impairment;

❑ physical disabilities;

❑ learning difficulties.

Discuss your findings with the group as a whole.

Activity 2.2.2

Look at Figures 1, 2 and 3 and replace the negative statements with helpful, positive responses.

Working in small groups, discuss the statement 'disability does not mean inability'. Discuss the implications of this for the teacher.

Disability is a socially constructed phenomenon. Discuss the ways in which your society creates barriers which restrict persons with disabilities. What can you as a teacher do to improve the situation?
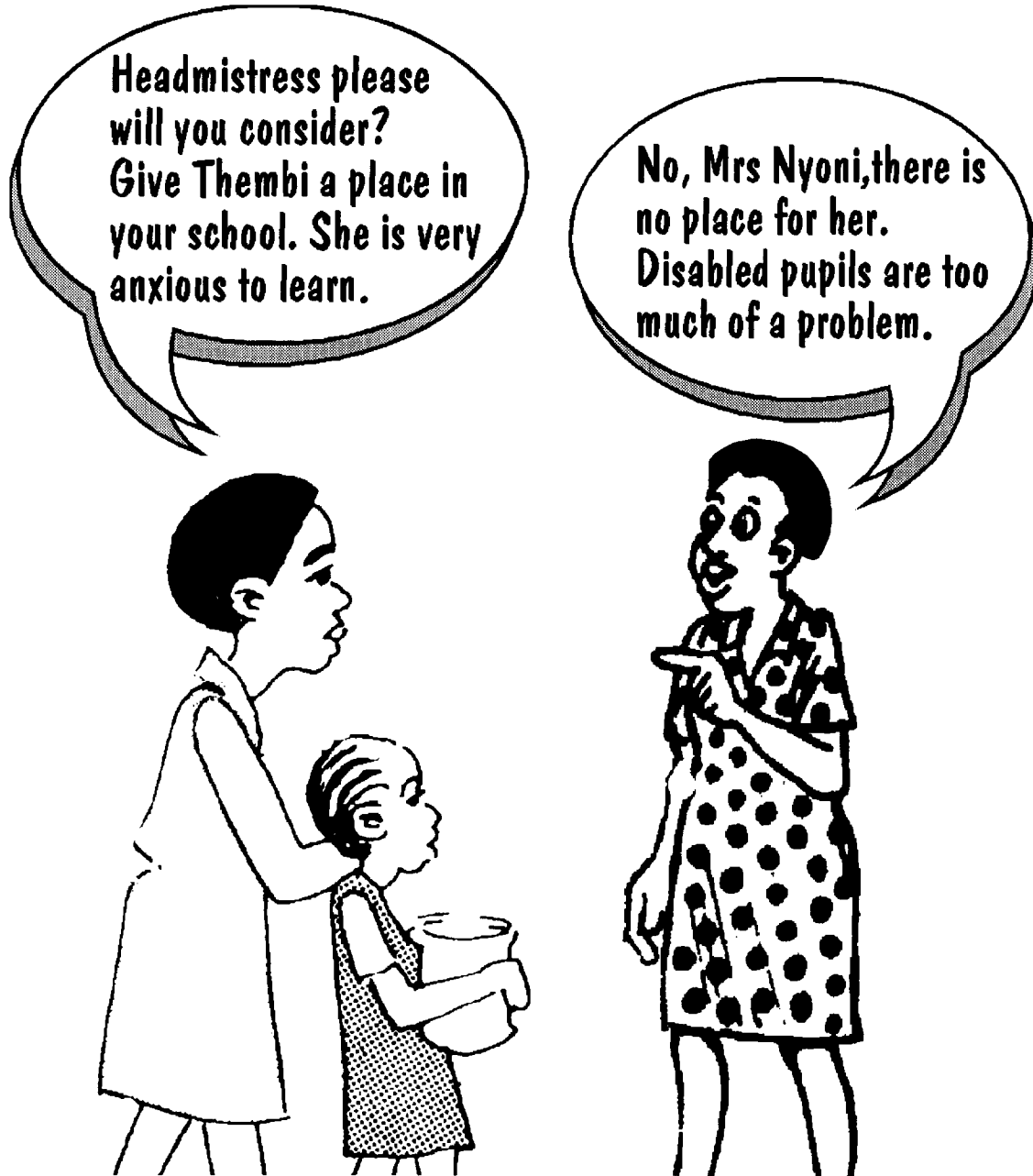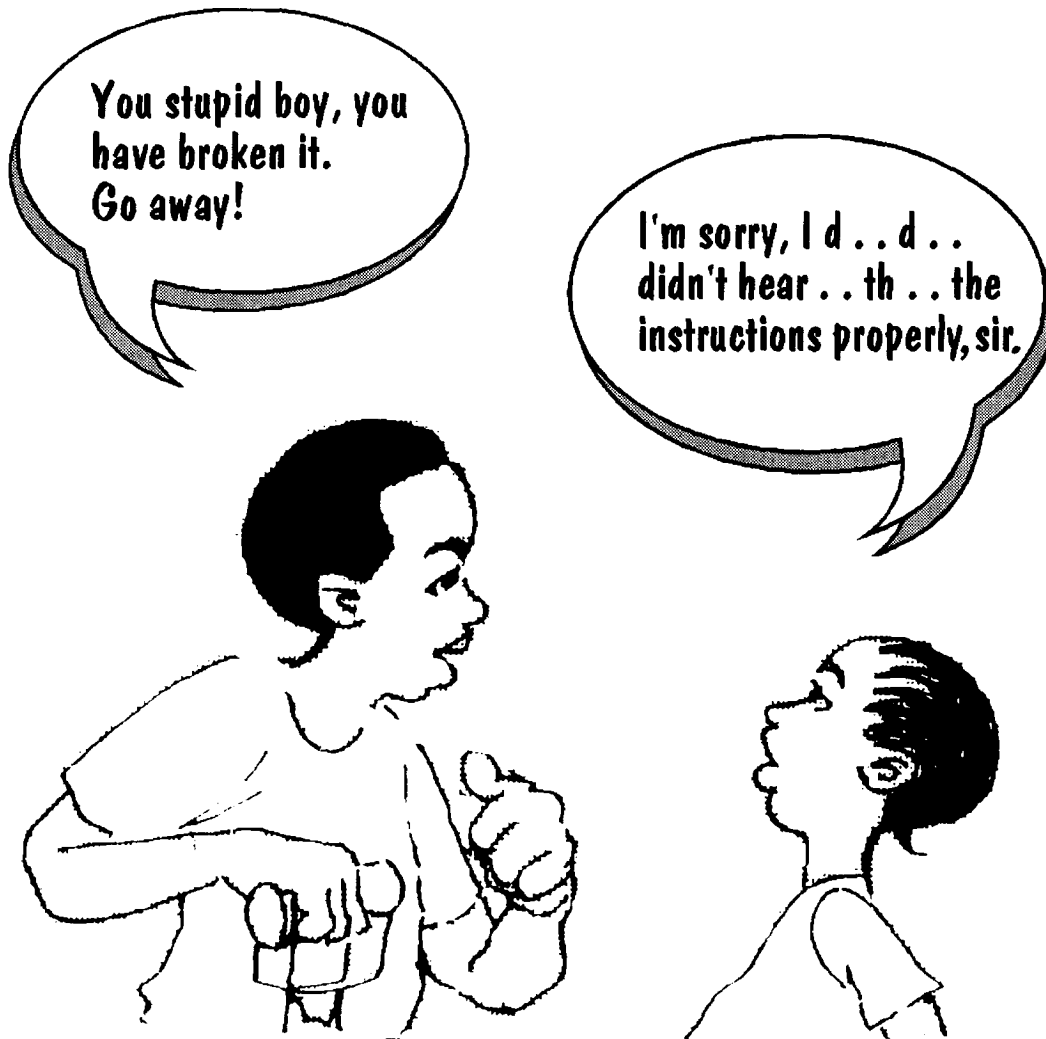
Figure 1

Figure 2

Figure 3

Activity 2.2.3

Read the following dialogue:

Samuel:
My classmates and I help each other. I often teach them the words and music to songs. Sometimes they fetch things for me. My teacher encourages me to walk using one crutch. In class she does not help me too much or make me different from the other children. I work like everyone else.

Samuel's mother:
Samuel doesn't want to be pitied. He wants to be given the chance to show what he can do – such as running errands for me.

Samuel:
Playing after school is fun. Sometimes I meet so many people that it takes me two hours to get home. If you know someone like me who is physically disabled, why don't you play with them? After all, _everyone needs friends_.
Every day my friends call for me. Then we walk to school together.

Peter:
Come, Samuel!

John:
Are you ready, Samuel?

Samuel:
I can walk to most places using my callipers and crutches. My arms have become strong using them. I often go back to the hospital to change them. It is important that they fit properly. I will always need them because there is no cure for spina bifida.
Before I got them I couldn't go and meet my friends. So, I would sit outside and play.
Other children came to play. At first their parents didn't like this, but gradually they got to know me better. Soon I had lots of friends. They like to challenge me at cards.
The first day at school everyone just looked and pointed at me. It made me unhappy. I was the first disabled person to go there. But after a few days we became friends.
Some boys even tried my crutches but they couldn't walk as well as me with them.

After the story answer the following questions:

❑   How do you feel after reading the story?

❑   Why doesn't Samuel want to be pitied?

❑   Why did the other children at first just look and point at Samuel?

Comment

Samuel, the boy in the story, was born with spina bifida. This comes from a problem in the early development of an unborn child when some of the backbones do not close over the spinal cord leaving a soft, unprotected area. Nobody knows what causes it, but it results in muscle weakness or paralysis of the legs and feet. Often people with spina bifida have a 'large head' caused by the skull expanding to contain liquid which is unable to drain away into the spinal cord.

Although children with spina bifida often have perceptual problems, they have a good chance of living a full and happy life, going to school, learning different kinds of work, getting married and having children. What is important is that we help these children to do more for themselves.

Activity 2.2.4

Go through Reading 2.5, Shingai's Struggle for Education (page 30).

Discuss in small groups what can be done to ensure that people like Shingai are not denied access to education.

Report your findings to the group as a whole.

Activity 2.2.5

If you have time, play the Board of Inquiry Game which is presented in the Appendix to this topic.

It is designed to reinforce Module 1 and Module 2 as it deals both with *gender* and with *disability*.

Decide among yourselves who will play the different roles.

Module 3
Equity and the Very Poor, Refugees and Minorities

This module aims at sensitizing educators to the educational problems of the very poor, refugees and minorities and at encouraging them to consider the interventions that are necessary to afford their children equal educational opportunities.

Learning Outcomes

By the end of this module you should have:

❑ understood the social and economic factors that may lead to the poor performance and underachievement of very poor, refugee and minority pupils in school;

❑ understood the role of teachers in redressing the situation in the classroom, the school and the community;

❑ developed an awareness of your role in promoting equality of educational opportunity for marginalized minority ethnic groups.

Content

Despite the considerable efforts of many governments to afford all children equal educational opportunity, and the great successes achieved in increasing access to primary education, equality of educational opportunity for the very poor sections of society remains elusive. This unit discusses some of the possible reasons why children of the very poor continue to have less access to education and to receive unequal treatment in the schools. In this section emphasis is placed upon two factors, material poverty at home and teachers' attitudes and expectations in the schools.

Reasons for the Inequality of Educational Opportunity of the Very Poor

The reasons for which the children of the very poor lack access to education and equal treatment in the schools are numerous. Many of the reasons are the same as those for girls, persons with disabilities and marginalized ethnic minorities (groups which may also be very poor).

Factors in the home

Material poverty at home is a major factor contributing to lack of access and poor performance by pupils in the lowest socio-economic stratum in society. Despite the fact that poor pupils may not have to pay tuition fees at primary schools there are other costs attached to the education of poor children. The most obvious of these is the cost of uniforms, writing materials and other necessary equipment. Another, but less obvious, cost is the loss of the child as an economically active member of the family unit, and in the case of girls, loss of domestic labour. The children of very poor families usually contribute to the family income from an early age. They may be involved in economic activities such as agriculture, the herding of livestock, street vending, or even begging. Girls are often called upon to look after younger, elderly or sick relatives as their families are unable to afford the services of professional carers. Many poor families cannot afford these additional costs of education and thus may be unable or unwilling to send their children, particularly daughters, to school.

Over and above the cost of education the extreme poverty of some families means that they are unable to aid their children educationally in other ways. Most very poor parents are themselves uneducated and are therefore usually unable to help their children with homework or academic problems that may arise. Poor families cannot afford toys, games, books and other resources which may be helpful to their children's cognitive development. Because of the poverty at home, poor children are very often inadequately nourished, which affects their ability to learn and to concentrate during lessons. Also, they may live in overcrowded conditions and without electricity which means that it is very difficult for them to do homework.

For all the above reasons, once in the school poor children usually continue to be disadvantaged by the poverty at home.

Factors in the school

It is often noticeable in many schools that disproportionately large numbers of poor children are to be found in the lower academic streams and are labelled underachievers or slow learners. This can partly be explained by factors relating to the home background of poor pupils. However, teacher attitudes and expectations may also play a large part in the underachievement of poor pupils. As in the case of girls and people with disabilities (see Modules 1 and 2 above), a self-fulfilling prophecy may operate for poor pupils. Teachers often apply negative labels to, and have very low expectations of, poor people. When these are communicated to the pupils during classroom interaction the resultant negative self-concepts and lack of confidence leads to poor performance and underachievement. This lack of a positive self-concept in relation to the school, combined with all the other problems that a poor child may have, is a very heavy burden for the child to overcome.

Activity 2.3.1

Go through Reading 2.6, The Story of Lindiwe and Sipho (page 30).

Form six groups. Each group should discuss one of the following topics for ten minutes:

1. List the possible economic activities that Lindiwe and Sipho might have been involved in which led to them often being absent from school.

2. Identify the possible domestic chores that Lindiwe, because of the family's poverty, might have had to undertake and which may have contributed to her coming late and failure to do homework.

3. Identify the possible factors, related to the family's living conditions and material poverty, which may have prevented Sipho from completing his homework and paying attention in class.

4. Explain why Sipho's deteriorating academic performance and worsening behaviour might have been a response to the actions and attitudes of the teachers.

5. Identify alternative ways in which the teachers could have responded to Sipho's 'indiscipline' and 'laziness' which might have led to the lessening of these problems.

6. Identify and explain an alternative manner in which Sipho's mother might have been advised by the teachers to solve her son's problems.

Each group should report its findings to the group as a whole.

Marginalized Minority Ethnic Groups and Educational Opportunity

Members of these groups are usually denied educational opportunity. Many of them reside in rural areas, remote from urban centres, where educational facilities are lacking. Others who live among the dominant groups, where educational facilities are present, do not have equal access to education nor equal treatment within the schools. Often they are discriminated against by majority ethnic-group members. Teachers and other pupils tend to look down upon them and to develop negative stereotypical depictions of them.

Minority ethnic-group members are disadvantaged members of the wider society. They are usually very poor. The family circumstances of children from these groups are not favourable to, nor supportive of, schooling. They are poorly provided for materially and if at school usually arrive hungry, tired and often mentally exhausted from the psychosocial conditions found in poor living environments. Their poverty results in them being unable to afford even the most basic of provisions such as writing implements and textbooks. It is important for teachers to recognize and understand the

circumstances of these children so that they are able to plan appropriate intervention strategies to help them. Many of these strategies are similar to those necessary for girls, the very poor and pupils with disabilities.

School culture and minority subcultures

The school culture is based upon the culture of the dominant sociocultural groups in the wider society. Children from marginalized ethnic groups, like all very poor children, experience a vast cultural difference between the home and the school. Usually because of this cultural gap they are unable to keep up with other pupils and they fall behind in class.

The medium of instruction, that is, the language used for teaching in the school, is different from the mother tongue used by the child at home. In many cases children from such groups come to school with very little or no knowledge of the language used in the school. Teachers, on the other hand, may be ignorant of the minority pupils' language. The children therefore experience not only a strange physical and material culture, but also a strange language.

In the school pupils learn concepts and language. Language is the vehicle for concept development. The child from a minority ethnic group thus has a double task, to learn new concepts presented in an unfamiliar second language and at the same time to master the second language. In some cases the child is taught a third language in the second language. For example, a Tonga-speaking child in Zimbabwe may be taught English in a school which uses Shona or Ndebele as the medium of instruction.

Parents of children from marginalized ethnic groups may not be able to give high priority to education. Their levels of material and economic development are usually very low and they are too preoccupied with the demands of survival to consider education for their children as a basic necessity and priority. Often, therefore, children are not sent to school. Those who do attend school tend to drop out early, especially girls, who may be married at a very early age. Drop-out rates are much higher for marginalized minority groups than for other groups.

Minority children may not be highly motivated to enrol or stay in school. Often their cultural norms, values and practices conflict with those of the school and parents fear assimilation of their children into other cultures. Others may fear 'alien' religious influences and thus may refuse to send their children to school at all.

It is necessary for teachers both to understand that the school culture may be strange to the pupils and to respect the cultures of their pupils so as to link the two when teaching. There may be a need to introduce special programmes to bridge the gap between minority and majority groups.

Activity 2.3.2

Read through the following suggested benefits of equality of opportunity for marginalized ethnic minorities.

Equality of educational opportunity for marginalized minority ethnic groups would benefit them and the society as a whole in the following ways:

- ❑ they would understand the values and practices of the wider society, including the language, and thus these would no longer present barriers to participation of minority groups;

- ❑ they would thus have greater access to skills and employment which in turn would afford them greater access to goods and services that would improve their quality of life;

- ❑ they would have greater access to knowledge which would improve their life chances and life styles, e.g. better hygiene, nutrition, parenting practices;

- ❑ they would develop a positive self-concept which would lead to higher motivation and achievement;

- ❑ children of both minority and majority ethnic groups would learn to appreciate the multicultural nature of society and be enriched by contact with cultures other than their own;

- ❑ minority ethnic groups would develop economically and socially and would also contribute economically, culturally and socially to the development of the wider society of which they are a part.

Form six groups. Each group should discuss for ten minutes one of the above benefits and then report back to the group as a whole.

Activity 2.3.3

Case-study: The Tonga People of Dande Valley

Jani is 15 years of age. His sister Shuvai is two years younger. They are members of a marginalized ethnic group, the Tonga, and live in the remote area of the Dande Valley in Zimbabwe. The Tonga people live a very simple life and adhere strongly to their traditions. They are divorced from the dominant culture of the neighbouring Shona-speaking people.

Very early one rainy morning, when Jani was about to leave for the primary school which he attended, the following scene took place.

'I am tired of the long walks to school every day,' said Jani to his father and sister as he warmed his hands by the fire in the centre of their round kitchen. 'I think I will drop out just like you did, Shuvai,' he continued. Jani's father looked at his son and replied, 'Your school is too far away. It is not easy to walk 5 kilometres every day, I know. I wish that there were more schools in Dande Valley.' Shuvai handed her brother his lunch box filled with roasted maize cobs and interjected, 'You know father, people

don't care about us. The teachers at the school are all Shona-speaking and none of them speaks a word of Tonga. It's so difficult to talk to them. No wonder I left school. I couldn't understand much of the lessons, and they did not try to explain to us.'

They all sat silently for some time thinking, then Jani remarked, 'We have a new teacher who is very pompous. He looks down upon us. He doesn't understand a thing about our lifestyle and doesn't want to. Every day he talks of the things that Shona people do. What has that to do with us?' Shuvai felt sorry for her brother and said sympathetically, 'I know just what you mean. I wish I were Sarudzai. She went to a boarding school near Bindura town. Maybe it will be better when you have to go away to secondary school, Jani.'

'Oh no!' exclaimed Jani, 'That's another story. Sarudzai told her brother that the situation there is even worse. She wants to leave school and come home. She says that both the students and teachers do not know the Tonga language and they discriminate against her. She has no friends and is very lonely. Also the school has too many sophisticated things which are common to the other children, but which Sarudzai doesn't know. They laugh at her. I will **never** go to secondary school!'

Jani's father sighed deeply and said, 'No, my son, you should have access to education like everyone else in Zimbabwe. It is not we Tongas who cannot fit in. It is society that is wrong. They don't recognize that minority ethnic groups like ours are really disadvantaged...'

Task:

❑ Finish the dialogue.

❑ Discuss the problems that face minority ethnic groups in relation to education which you have identified from this case study.

Activity 2.3.4

Form five groups. Each group should undertake one of the following activities and then report back to the group as a whole.

Group 1

Make an analysis of the benefits which would accrue to the whole society from giving equal educational opportunities to marginalized minority ethnic groups. The benefit analysis should have the following format:

PRESENT STATE OF AFFAIRS	AFTER EQUAL ACCESS TO EDUCATION
(a) poor	(a) will have access to wealth through employment or self-employment
(b) high infant mortality	(b) will space child births, will improve nutrition
(c)	(c)

(a) and (b) are given as examples only

Group 2

List any marginalized minority ethnic groups in your country. Describe four cultural practices of each group which may create problems for the education of the group and conflict with the culture of the school.

Group 3

Identify at least five policy- and decision- making institutions in your country that could help change the life situations of marginalized minority ethnic groups. List two of the things that each could do to change the situation.

Group 4

Draw cartoon pictures (which could be used on posters) depicting the different aspects of the disadvantaged situations of marginalized minority ethnic groups. At the bottom of each picture suggest how teachers could help minority pupils to overcome these disadvantages.

Group 5

Draw up a proposal for an intervention programme which your school could implement to assist marginalized minority ethnic groups in your area and which the school serves to have equal educational opportunities.

Readings

Reading 2.1
Some 'Explanations' for Differences in Gender Roles

The gene-biology argument

The genetic or biological arguments are based on the assumption that because women and men differ biologically they are naturally and genetically predisposed to masculine and feminine behaviours and have different biologically determined abilities and aptitudes. It is argued therefore that certain roles and occupations are 'natural' to men and women and because women are biologically equipped for pregnancy and childbirth those roles and occupations related to the home and child rearing, domestic roles, are natural to women. Men, this argument asserts, are genetically equipped to carry out roles outside of the domestic sphere being naturally more aggressive, active and powerful than women who are weaker and more timid, and thus dependent upon and in need of the protection of men.

The sexual division of labour and lower status of women, from this perspective, are explained as the natural consequences of biological differences and are accordingly perceived as the most practical and efficient way of organising societies. As a result, attempts to change the status of men and women and to alter their roles would be futile and possibly harmful to society. This argument underlies an approach to education which assumes that the natural differences between the sexes necessitate differences in the types and amounts of education girls and boys need to receive in preparation for the family and occupational roles they will carry out as adults.

The cultural argument

The cultural explanation for the inequality between men and women acknowledges the obvious biological differences between males and females but rejects biology as the sole determinant of human behaviour. Rather, weight is given to the role of culture in mediating biology and in directing human behaviour. Masculinity and femininity are perceived as cultural constructs, and a clear distinction is made between sex and gender. Sex represents the reproductive and physiological differences between males and females. Gender, however, is a status ascribed to the individual at birth based on particulars of anatomy. Like all other social statuses, those of male and female are linked to sets of societal values, expectations and roles which are learned during the process of socialisation. From this perspective, anatomical differences are the foundation for socially constructed and transmitted feminine or masculine personalities, behaviours, attitudes and roles.

The inequalities between women and men arise from the higher value often placed on masculinity than femininity and the higher rewards for activities and work typed as 'masculine'. Differing rewards lead to gender inequalities in society which are perpetuated in a number of ways. Education, for example, which prepares girls for feminine domestic activities and occupations does not prepare them for biologically pre-determined roles and statuses, but reproduces socially constructed inequalities and power differentials between men and women.

Reading 2.2
Anesu's Dream

Anesu is 8 years old. She dreams of becoming a mechanic like her older cousin George. She has watched him fixing motor cars and vans in his back yard and finds it very interesting. Nobody seems to understand her dream. The following incidents illustrate the responses to Anesu when she told people about her dream.

Anesu's brother, Tendayi, was playing with his friends in the yard. They were making motor cars from wire which Tendayi's father had bought for him. After watching them for about five minutes, Anesu approached and asked, 'Can I play too, please, Tendayi? I would like to make a motor car.' Her brother laughed. 'Don't be silly,' he replied, 'This is a game for boys. Go and play with your dolls.' Anesu wanted to cry, but tried not to. 'I'm going to be a mechanic just like George when I grow up,' she insisted. When they heard that all the boys started to laugh, 'Your sister is really funny, isn't she?' one of the boys said to Tendayi. Anesu's mother observed the incident through the kitchen window. She shook her head and sighed. 'Anesu,' she called, 'Stop bothering the boys and come inside. There is work to be done. You have not finished sweeping the floors.'

That evening when her father came home from work Anesu asked him to buy her some wire. 'What do you want wire for?' he asked. 'I want to make motor cars,' she responded, 'I want to be a mechanic when I grow up.' Her father turned to her mother and said, 'Do you hear that? Your daughter is getting some really funny ideas. You had better give her some guidance, she is becoming too boyish.' Anesu's mother looked at her daughter, 'Anesu,' she said, 'Come into the kitchen with me and I will show you how to wash the dishes like a grown-up lady. You must stop being silly and start behaving like a good girl. You should try to be interested in the games that girls play. I never see you playing with the dolls I have bought you. You could sew dresses for them. I know, I will buy you some fabric and thread. You can have those instead of wire.'

A few days later in class at school the teacher asked the children to write a short story entitled 'What I want to be when I grow up'. Of course Anesu wrote about being a mechanic. After reading the story the teacher remarked to Anesu, 'So, Anesu, you want to be a mechanic. Why do you want to do a man's job? It's a very dirty and heavy job. Don't you think it would be nicer to be a nurse or teacher? All your friends have written that they want to be nurses, teachers or secretaries. They are much better jobs for ladies.' Anesu sighed, 'Yes, teacher,' she replied.

Reading 2.3
Guidance for Planning and Teaching Lessons

DO:

1. Make sure that equal attention is given to boys and girls in the classroom.
2. Encourage girls to participate in discussions and to answer questions.
3. Give girls positions of leadership and responsibility in the class, for example as group leaders in group work.
4. Give girls tasks and responsibilities other than those usually given to girls, such as cleaning the classroom.
5. Give boys tasks and responsibilities usually associated with girls.
6. Reinforce girls' positive self-images by avoiding labelling them in stereotypical ways and by _positive_ labelling.

7. Design activities for the class in which gender-stereotypes are broken down.
   For example:

   (a) role-playing games in which girls play the parts of doctors, pilots, engineers, etc.;

   (b) writing adventure stories in which the hero is a girl.

8. Seek out or prepare teaching materials which present girls in a positive light and in which girls or women are seen taking an active role. For example, women inventors, women in history, women in sport.

DO NOT:

1. Allow boys to dominate, bully, or ridicule girls in the class.

2. Negatively label girls in the class.

3. Encourage competition between boys and girls or divide the class into boys' and girls' groups for any activities.

Reading 2.4
Education and Disability

The main areas of disability in which appropriate educational intervention can play a valuable role in alleviating reduced capacity to function are described below. Some suggestions are given for ways in which teachers can help pupils with disabilities.

Hearing impairment

Hearing impairment refers to the condition of individuals whose hearing is disabled through either, or both, hearing-loss and faulty hearing. Persons with severe to profound impairment have problems in acquiring oral language and speech. Mild and moderate hearing-loss cases should be able to acquire language and hear speech with the assistance of hearing aids. These little machines are worn by people to assist them to hear sounds that they would otherwise not hear. They amplify sound but do not correct impaired hearing.

More often than not, hearing-impaired children are denied access to education because of their disability. Some children with hearing impairment who are already in school are wrongly labelled. For example they may be labelled 'mentally retarded', lazy or inattentive because the teacher has not recognized their hearing problems. Teachers should learn to identify these children and provide the appropriate intervention.

The following are common symptoms that teachers will observe in children with hearing problems. When any of these symptoms are noticed the teacher should refer the child for hearing tests.

Common symptoms

❑   The pupil often fails to respond to speech or common sounds that other pupils in the class respond to easily, especially soft or high-pitched sounds.

❑   The pupil often responds to sounds only after someone touches her or him or points to the source of the sound.

❑   The pupil is slow to respond to the teacher's instructions and usually waits to follow the lead of the other children.

❑ The pupil often responds to sound by turning in the wrong direction, i.e. away from the source of the sound.

❑ The pupil often responds to sound by holding her or his head to one side, leaning forward, looking very attentively at the speaker's mouth or by holding her or his hand to the ear to 'catch' the sound.

❑ The pupil may ask for words or instructions to be repeated.

❑ The pupil may lose balance for no apparent reason.

❑ The pupil often turns radios or other such devices to a very loud volume.

❑ The pupil may suffer from earache, 'running' ears, sore throat, coughs and may breathe through the mouth.

The basic problem of hearing-impaired children is communication. Sign language, gestures and writing can be important complements to communication by speech. To facilitate effective communication with such pupils, teachers should follow the guidelines below.

❑ When talking to pupils with hearing impairment do not speak louder than usual. Do not use single words or shortened phrases. Do not 'overmouth' (exaggerate mouth movements). Speak normally and clearly at a moderate speed. Use simple sentence structures. Most children with hearing impairment have delayed language development.

❑ To help them understand speech and gestures the teacher should stand so that the light falls upon her or his face and upper body. The teacher should always face the hearing-impaired child and avoid standing behind him or her, or moving around when speaking.

❑ The teacher should supplement and illustrate speech with gestures, writing, pictures and finger spelling when there are communication problems.

❑ Long oral instructions and explanations should be divided into parts, giving pupils time to process them.

❑ Noise in the classroom should be reduced so that the student with hearing impairment can use her or his limited listening skills to maximum advantage. Common classroom noises such as chairs scraping on the floor can reduce the children's ability to hear what is being taught. Hearing aids amplify environmental sounds as well as speech.

Visual impairment

This refers to a condition of individuals whose sight is impaired. They either have low vision (cannot see properly) or they are totally blind. They may need training in the use of braille, typing, mobility (getting around the physical environment, e.g. the classroom), and orientation in new environments.

Children with visual impairment who still have some limited vision should be encouraged to use their sight unless there is clear medical evidence for their not doing so. They should be taught to read and write using ordinary print, supported by braille only to the extent that it is justified by the particular child's present and assessed future visual acuity (ability). Students with visual handicaps are present in ordinary schools but often their problems are not recognized or attended to.

Such children can be identified by the following:

Common symptoms

- ☐ The child often blinks her or his eyes, rubs them or shuts or covers one eye, or may screw up his or her eyes when looking at an object.
- ☐ The eyes may be red, swollen, watery or crusted.
- ☐ The child may often have headaches.
- ☐ The pupil of the eye may be cloudy or the pupil of one eye may be larger than the other.
- ☐ The child may have difficulty in seeing distant objects clearly, and may often copy work from the blackboard inaccurately.
- ☐ The child may hold reading material very close to the face.
- ☐ One eye may not look directly at the object that the child is observing (the eyes appear to move in different directions).
- ☐ The child may use a finger to follow words while reading.
- ☐ The child may often stare at light.
- ☐ The child may have drooping eyelids.

Those who are totally blind are often easy to teach once both the student and the teacher master a common writing system. At primary-school level braille work is normally used while at secondary level typing is the more common means of writing. Visually handicapped students have done very well in schools and other educational institutions alongside sighted students.

In order to support and assist those pupils with low vision, teachers can do the following:

- ☐ When speaking to partially sighted children the teacher should not stand with the light behind him or her. The light source should be behind the student and should fall on the teacher's face.
- ☐ When giving instructions to the whole class the teacher should move closer to the students with limited vision.
- ☐ Teachers may make tape recordings of lessons and lectures for students with visual disorders who have difficulty in writing long sets of notes from lessons or lectures. Those with limited vision should also be taught to make brief but effective notes.
- ☐ As soon as possible the student should be taught to use a typewriter without looking at the keys ('touch typing').
- ☐ Care should be taken to use large print and not to present too much material on one page of written material prepared by the teacher.
- ☐ When visual demonstrations are being given by teachers to partially sighted students the materials being used should be presented against a background of contrasting colour. Teachers should provide a detailed verbal description of what they are doing.
- ☐ Students with visual impairment should be seated at the front of the class as close to the teacher and blackboard as possible.

❑ The teacher should make sure that there is as much light as possible on the blackboard and the pupil's desk.

❑ The teacher should write clearly and in larger than usual script on the blackboard.

Physical disability

People with physical disabilities may be normal in every other way, except for physical deformity and motor problems (which affect and limit their movement). Thus they only have other problems if their condition is compounded with other disabilities (multiple disabilities). One of the major problems for those with physical disabilities is dealing with obstacles in the physical environment which prevent them gaining access, e.g. to buildings and high shelves.

In order to enhance their mobility teachers need to:

❑ Help them to acquire wheelchairs, callipers, artificial limbs and other such apparatus.

❑ Make modifications to the environment to ensure accessibility, e.g. ramps instead of steps, wide doors, lowering or raising of shelves and desks.

❑ Help them to have access to therapeutic inventions for mobility training.

❑ Make sure that they are in as comfortable a position as possible in the classroom to minimize discomfort and pain.

People with physical disabilities should not be discriminated against. They have done well in schools, colleges and universities. What is usually lacking is the opportunity to get to school. Other problems they face are negative attitudes and labelling which lead to unequal treatment in the school. In these ways, like all other persons with disabilities, they are denied equality of educational opportunity.

Learning difficulties

Those with learning difficulties are generally slower than average in their cognitive processes. This does not necessarily mean that they cannot learn, but that they may learn more slowly. They may have difficulty in handling complex or 'brain-taxing' tasks. Programmes can be designed to meet their special needs and with patience and encouragement they can achieve. It is essential to avoid labelling, which may compound the problems faced by such pupils.

In order to assist such pupils the teacher can do the following:

❑ Exercise great patience and give plenty of praise and encouragement to the pupil to motivate him or her.

❑ Break down complex tasks into simple steps and allow the pupil to master each step before going on to the next.

❑ Frequently revise and reinforce steps already learnt.

Many people confuse mental disability with mental illness. Mental disability has a physical cause, e.g. damage to the brain. Those who are mentally ill do not necessarily have mental disabilities. Their problems usually have social and psychological bases.

Reading 2.5
Shingai's Struggle for Education

Shingai was born, totally blind, into a family with seven other children. Initially, his parents were embarrassed to be associated with a blind child. It took them a long time before they accepted Shingai's disability and were able to relate positively to him.

The family lived just a stone's throw from the local pre-school. When Shingai turned 2, the age of entry, the pre-school teachers refused him entry. 'This is not a school for the blind,' said Mrs Kombo, the teacher in charge. 'Shingai is just like any other child,' argued his mother, 'He has a right to education!'

Mrs Kombo pushed the little boy and his mother out of her office. 'You're wasting my time', she said, 'I have other parents to attend to. Parents with normal children!'.

Shingai did not go to pre-school. He stayed at home. At the age of 6 there was a new problem for the family. He wanted to go to primary school, just like all the other children. The local primary school would not admit him, because of his blindness. The headmaster made this point very clear to his parents. An appeal to the school's governing body did not bear fruit. Some of the parents feared that Shingai's blindness was catching and would affect their children. Shingai continued to stay at home, denied access to education and the company of other children.

This situation continued until Shingai was 12 years old. Only then was the family assisted by a charitable organization for persons with disabilities. They agreed to admit Shingai to a boarding school for the visually impaired some 300 kilometres away from his home. Shingai did well there and at the age of 19 completed his primary education.

Once again problems resurfaced. Shingai was unable to secure a place in a secondary school. No school near his home would accept him. The only boarding school with an integration unit for the visually impaired was too expensive for his family to afford. As a result Shingai never obtained a secondary education.

Shingai now belongs to a co-operative of the blind. They eke out a living by making baskets and mats for sale. Shingai is a sad and bitter man. He, like all the other members of the co-operative, was denied equality of educational opportunity.

Reading 2.6
The Story of Lindiwe and Sipho

Lindiwe is 11 years of age, and is the eldest child in a very poor family. Her father, who used to work as a farm labourer, was disabled in an accident and is now unemployed. He is unable to wash and dress himself and needs constant care and attention. Her mother works as a labourer on a farm not far from the squatter compound in which the family lives. Lindiwe has five brothers and sisters.

Several kilometres away from the squatter compound is a primary school run by the rural council. Tuition fees are not charged at this school. Lindiwe attended this school for one year, but was suspended for frequent absences, consistently coming to school late and not doing her homework. Her parents have not tried to get her back into the school.

Lindiwe's brother Sipho, who is 10 years old, attends this school. He is in grade two. He is unhappy at the school and is not liked by the teachers or the other children. The teachers accuse Sipho of being lazy. They complain that he does not pay attention in class, does not do his homework, nor does he participate in any extra-curricular activities. They say he gives the school a bad name in public because he is untidy, and his uniform is torn and dirty. They also say that he is 'just like his sister', always late and often absent.

Sipho is constantly being reprimanded in front of the other pupils and is usually punished for all these offences. He appears to the teachers to be stubborn as he does not respond positively to their attempts to 'discipline' him. In fact his academic performance is becoming poorer and his behaviour worse. His mother has been called to the school on several occasions to discuss the boy's 'delinquency' and the staff have asked her to help them to discipline him. Each time his mother has promised to 'beat some sense' into him, but because there has been no improvement the teachers believe she has not done this and is probably 'too soft' on the boy.

The teachers have given up because they believe that they have done everything they possibly can to help Sipho. They have requested the headmaster to expel Sipho and not to admit any of the other children from the same family into the school in future.

TOPIC **2**

Bibliography

Baine, D. 1991. *Handicapped Children in Developing Countries*. Alberta, University of Alberta.

Boylan, E. 1991. *Women and Disability*. New Jersey, Zed Books Limited.

Government of Zimbabwe. 1982. *Growth with Equity*. Harare, Government Printers.

Government of Zimbabwe. 1992. *Disabled Persons Act*. Harare, Government Printers.

Haralambos, M. 1984. *Sociology: Themes and Perspectives*. Slough, UK, University Tutorial Press.

McConnochie, K. 1973. *Realities of Race: An Analysis of Concepts of Race and Racism and their Relevance to Australian Society*. Sydney, Australia and New Zealand Book Company.

Meyen, E. L.; Skrtic, T. M. 1988. *Exceptional Children and Youth*. Denver, Colorado, Love Publishing Company.

Shermerhorn, R. A. 1970. *Comparative Ethnic Relations*. New York, Random House.

United Nations. 1983. *World Programme of Action Concerning Disabled Persons*. New York, United Nations.

Van der Zanden, J. W. 1979. *Sociology*. New York, John Wiley & Sons.

Werner, D. 1987. *Disabled Village Children*. Palo Alto, Hesperian Foundation.

Appendix

The Board of Inquiry Game

The players in this game will be involved in a board of inquiry and each person will pretend to be a certain type of person and will present her or his point of view at the meeting of the board. You can prepare for your part in the game by reading the description and instructions below.

The problem

A woman with a physical disability has applied for a place in the Faculty of Engineering at the university. She wishes to become a civil engineer. Although she qualifies academically her application has been rejected. She has therefore made an appeal against the faculty's decision and a board of inquiry has now been set up to discuss the issue.

Those present at the meeting are:

❑   The applicant

❑   The Dean of the Faculty of Engineering

❑   A representative from the organization of persons with disabilities

❑   The Dean of Student Affairs

❑   The physics teacher from the applicant's former secondary school

❑   The Chairperson, Registrar of the university

The applicant

You play the part of the unsuccessful applicant. You are extremely angry and very upset and feel that a great injustice has been done to you. You are certain that your application was rejected because you have a disability and are a woman. You are used to fighting for your rights and will not allow the prejudices of other people to stand in your way.

The facts of your case:

You took your A levels in physics, maths and technical drawing and passed each with an A grade. The advertisement in the newspaper inviting applications stated that three B grades at A level were necessary to qualify for the course. You know of students who are able-bodied males who got lower grades than you and were accepted on the course.

You had little trouble with science subjects, including practicals, at school. When necessary the teachers helped to modify some of the laboratory equipment. You took part in the field trips and other similar activities of your class last year. You also swim and do exercises to keep yourself fit.

You have proved to those of your teachers at school who believed that girls and women cannot do well at maths and science that this is not so. You are used to dealing with the extra demands your disability places upon you and to having to work extra hard.

Your attitude:

You know it is your right to study engineering and that the university is violating your rights by refusing to admit you. You believe that you **must** be given the chance to study. You also believe that you are as capable as an able-bodied person and that you can cope with the physical demands of the engineering course.

You are used to standing up for yourself against prejudiced people who believe that disability means inability. As a woman you are also used to fighting against sexism.

In this game you should therefore be very sure of yourself and your ability. You should make your points in a confident, but not aggressive, manner. You must not allow those opposed to you to make you feel frightened, or change your mind.

The Dean of the Faculty of Engineering (a man)

You have been called to this meeting to justify and explain why the applicant was rejected.

The facts of your case:

There has never been a woman on this course. Although other women with the required qualifications have applied in the past, they have been rejected. You have never accepted a person with a disability on the course.

This applicant had the best A level results of all the applicants this year. She was rejected because of her sex and disability.

This is the first time your judgement as Dean of the Faculty has been questioned and the first time that an appeal has been made by a rejected applicant.

You know little about the laws relating to persons with disabilities and did not consider the rights of the applicant when rejecting her application. You have no facts or figures to support any of your arguments or beliefs.

Your attitude:

You believe that

❑　persons with disabilities cannot do the course;

❑　women and persons with disabilities are not strong enough to cope with the physical demands of the course during practical work in the field;

❑　women cannot and should not become engineers;

❑　women are not good at maths and physics and other related subjects;

❑　a woman's place is in the home and therefore once she has children she should stay at home. So, even if she could manage the engineering course, it would be a waste of time and deprive a competent male student of a place;

❑ persons with disabilities would be unable to use the laboratories or get up the stairs to the engineering department;

❑ a person with a disability would be in danger and also endanger other students in the labs;

❑ working with a disabled student would make the other students uncomfortable.

You are totally opposed to admitting the applicant, and as Dean you believe you have the right to reject any applicant without having to explain your decision.

Your judgement has never been questioned before and you are angry that you have been challenged. You do not like this board of inquiry.

You should therefore start out by being quite aggressive. Try to put your case before the opposition have a chance to make their points. At the beginning of the game you argue with the teacher and representative from the organization of the disabled even though you cannot support your statements with facts. Later, after some of those in favour of admitting the applicant have given their evidence, because of your lack of evidence for your views you tend to stress the practical problems that would be involved in admitting the applicant. Do not be too stubborn. If the opposition makes a good point, you can listen quietly and then accept what they say. It is possible for you to change your position and agree that the applicant should be admitted.

A representative from the organization of persons with disabilities (a man)

You represent the national organization of persons with disabilities. Your organization has been in the forefront of the fight for equal rights for those with disabilities. You have come to give evidence on behalf of the applicant, who is a member of your organization.

The facts of your case:

You are conversant with all the current legislation relating to the rights of persons with disabilities and can quote the relevant provisions. You are also familiar with the relevant passages of the Universal Declaration of Human Rights and of the Declaration of the Rights of Disabled Persons.

Your organization's policy is that persons with disabilities must be integrated into the wider society and not isolated. It also emphasizes that persons with disabilities do not want charity; they have a right to equal opportunities, to be self-supporting and to make a contribution to society.

You, of course, have experienced discrimination and ridicule, both personally and as a representative of your organization. It does not upset you any more. You are used to facing strong opposition.

Your attitude:

You are convinced that the university is acting unconstitutionally. Knowing your legal facts, you are prepared for the opposition. You are not willing to compromise, and you do not feel the need to be diplomatic when talking to the university representatives.

You recognize, however, that the university representatives do not know how to deal with some of the practical problems that they may have to face and you are prepared to advise and help them make the physical adjustments necessary to afford the applicant access.

You should be firm and assertive but not aggressive or rude. If the university representatives are being unreasonable or refuse to change their views you may warn them that legal action can be taken against them, but do this in a non-threatening way. On the other hand you should appear sympathetic to their problems and suggest ways they can overcome these without incurring too much expense. Also offer the services of your organization if at any time they should need them to solve problems. Tell them you are willing to work with them.

The Dean of Student Affairs (a woman)

You have been asked to represent the university at the meeting and to try to explain the problems the university has in admitting the applicant. Also you are there to protect the university's image.

The facts of your case:

❑   you have done some research and have found that the university is in a vulnerable position, legally;

❑   your task during the inquiry is to prevent the possibility of legal action being taken by the applicant;

❑   you also have to try to defend the decision of the Dean of the Faculty of Engineering and find acceptable excuses for the rejection of the candidate;

❑   the adjustments and modifications necessary to afford the applicant access to buildings, lecture theatres and laboratory equipment will cost the university money;

❑   the university is short of money and its financial situation is likely to worsen, not improve.

Your attitude:

You are worried about the legal implications of the rejection and wish to protect the university.

You personally do not believe that persons with disabilities can do engineering courses because of the practical difficulties.

You believe that because the university is short of money it cannot make access for persons with disabilities a priority.

You believe that the student should wait until the university is able to organize around the special needs of persons with disabilities and then reapply, or she should apply to be admitted to a different course not involving laboratories or field work, e.g. maths.

You do not wish to be seen as a prejudiced person.

You should aim for a reconciliation between the two sides and a compromise on the part of the applicant. You try to be understanding and persuasive, suggesting alternatives to her. You try to steer the discussion away from the legal aspects and to stress the practical and financial difficulties for the university. You appear to see both

sides of the argument, but as Dean of Students your main aim is to protect the university and the Dean of Engineering. However, if it appears that the opposition will not compromise and will take legal action against the university, you should change your position.

The physics teacher (a woman)

You play the part of a sixth-form teacher of physics. You are very angry and upset that the applicant, whom you taught, has been rejected. You have come to the meeting to give evidence on her behalf.

The facts of your case:

You yourself had to battle to overcome the prejudice of teachers and peers to become a physics teacher. You were the first girl from your village to take physics and chemistry at A level. You taught the applicant at secondary school. She was the best student in your physics class, and it was you who encouraged her to apply for the engineering course at the university.

You know that she can cope with the demands of the course and that it is not difficult to modify equipment, etc, when necessary because you did this at the school, e.g. you adjusted the height of the desk that she used in the classroom. In the laboratory you arranged for a small portable wooden platform to be placed where she worked so that she could reach the equipment.

You arranged with the librarian to put the physics books on a lower shelf within reach of the pupil, and to have a lower desk placed in the library for her use.

This is not a new situation for you as you have had to argue the case for girls doing maths and science subjects at A level before, at your school. You have been successful in showing that girls are capable; all your female pupils have passed their examinations in physics.

Your attitude:

You believe that all people have an equal right to education and equal opportunities, whether male or female, able-bodied or disabled. You believe that teachers and other educators have a moral and professional obligation to encourage and facilitate the education of all individuals, including underprivileged people and groups.

You know that girls and women need more role-models to show them that they can achieve the same things as men and therefore that women who wish to enter fields of endeavour considered 'masculine' should be encouraged. You also believe that persons with disabilities should be integrated into mainstream society and should be assisted to become productive and self-supporting, just like anyone else.

In this game you should be very persuasive, but should indicate that you feel that the university as an education institution is failing in its purpose and duty. You should not attack the university representatives. Wait for them to make their points and then counter them, with evidence and reasoned argument. Do not be emotional or aggressive, but do not allow the opposition's arguments to make you change your mind. When they express fears or worries about the difficulties that would be involved, patiently explain to them how these can be overcome. Talk to them as one educator to another, trying to work together to solve a problem. Do not treat them as the enemy. You know from experience that persuasion is more productive than confrontation.

The Chairperson (a man or a woman)

You are the Chair of this board of inquiry. Although you are the Registrar of the university, in this meeting you are NEUTRAL and do not have a vote.

You may pose questions but *you must not express any views on the matter being discussed.*

Your job is to *chair* the discussion. You must make certain that every member of the board has a chance to speak.

Begin by inviting the applicant to state her case. Then allow the Dean of Engineering to speak.

After that you can invite those supporting the applicant and then the Dean of Student Affairs to speak. After this allow further discussion.

Remember that the meeting should not take longer than thirty minutes. Control the discussion carefully and do not allow anyone to speak for too long. Try to get the board members to come to an agreement.

At the end you must:

❑ summarize the problem;

❑ outline the points against admitting the applicant;

❑ outline the points in favour of admitting the applicant;

❑ state what action you will recommend the university to take, and why.

Focusing on Learning

UNESCO/A. Jonquières

CONTENTS

Focusing on Learning

Introduction

T his topic looks at the reason why 'focusing on learning' is a key aspect of the expanded vision of the Education for All enterprise. It will review important factors that affect learning and identify effective ways of assessing learning. This unit will also address the issue of 'quality education', identifying what is meant by quality education as well as examining ways of ensuring its delivery. It will also focus on developing the creative, spiritual and aesthetic potential of children, areas which are not so easily measured.

The provision of more education may simply result in increased enrolments and do little or nothing to increase sustainable learning outcomes. Focusing on learning is important to the EFA enterprise because expanded educational opportunities will lead to meaningful development for an individual or society only if people actually _learn_ as a consequence of these activities. Enrolment does not mean that learning is taking place. It is, therefore, important that particular attention be paid to learning: the process of learning – the key factors involved in it; as well as the assessment of learning. Learning achievement needs to be assessed without incurring the all too common disadvantages of an examination-driven system.

Learning Outcomes

By the end of this topic you will have:

❑ understood the reasons why 'focusing on learning' is so central to the Education for All enterprise;

❑ reflected on the meaning of 'quality education' in the context of meeting basic learning needs;

❑ reviewed some of the key factors that influence learning;

❑ considered the importance for teachers of being aware of and understanding the different factors involved in effective learning, effective communication between teacher and pupil, the content of what is taught, the methods used, and the values, attitudes, reasoning ability and skills acquired by pupils;

❑ identified effective ways of assessing learning achievement.

Learning – a lifelong process

Learning is a continuous process.[1] What was learned yesterday may not be adequate for today – it may even be no longer correct. Almost everywhere, cooking used to be done over a wood or coal fire. Now people are increasingly using piped or bottled gas or electricity and even without consciously realizing it they have been learning new ways of doing things.

Some 'learning' is in fact only a process of memorizing; being able to recite a poem does not necessarily mean appreciating the meaning of the words. In the same way, a very young child who is able to repeat a multiplication table is not yet likely to understand the processes of simple arithmetic.

This elementary process of acquiring information is but a first step. Reciting the letters of the alphabet is not sufficient in itself. Reading involves the ability to differentiate between them and see them as words. Understanding a poem means not just repeating the words but also being able to explain them in one's own language.

Knowledge of the rules of arithmetic is information; it is there to be used in everyday life, in buying and selling in the shop or the market. In fact, learning is much more than just memorizing. It means understanding what is memorized and relating it to actual situations. It means applying what has been memorized; it means using it to analyse situations in order to understand them better.

All this involves *learning to learn*.

Everyone starts with some knowledge and experience, acquired perhaps through schooling and most certainly through listening to, and talking with, other people.

Learning to learn better and faster can be a matter of having a recognized goal or goals to be reached. Before setting out to reach an unknown destination it will be wise to plan ahead, to ask others the way, look up maps, work out the time it will take . . . .

Integrating new and existing knowledge

Acquiring new information, which everyone does every day, does not automatically add to existing learning and understanding. Just as a variety of vegetables are chopped, ground and slowly blended together by the cook to make a delicious dish, so new information needs to be blended with existing knowledge, understanding and experience. This is a matter of reading, listening, reflecting, questioning and self-questioning, and of consciously seeking links between old and new sets of information.

1. The section on learning to learn is adapted from material in *'Open Schooling'* National Open School, New Delhi, India.

In brief, learning to learn means moving on from the basic acquisition of new information. It means reading, listening and observing; it means thinking and reflecting about how it can be related usefully and effectively to what is already known and understood, and how it can be applied to reach new goals.

Active learning

When a child comes to school, he or she, even when very young, has ideas about the world around, and these ideas play an important part in the learning experience. The notion of learning as leading to changes in ideas, rather than as a process of putting in place new ideas without considering what is already there, has important implications for how we go about the task of helping learning to take place. If we attach value to the notion of children 'owning' their ideas – that is, working them out and changing them for themselves, and so learning with understanding, then it becomes important for teachers to provide opportunities for these changes to take place in a way that gives each child this ownership.

Learning for understanding requires more than the transmission of knowledge. It requires the development of learning skills and the cultivation of attitudes that have an ethical basis and are conducive to learning. In other words, the learners need to be actively involved in the learning process. The task of the teacher, therefore, is to plan lessons and to teach in ways that will encourage pupils to become active and enthusiastic partners. Teaching strategies, activities and materials should be designed and used to encourage pupils to think for themselves. The methods by which pupils are assessed are also an integral part of learning for understanding.

Quality Education

When we think of quality education we think of education that will lead students to accomplish a number of things.

Activity 3.1

In small groups, share your definition of quality education with particular reference to institutions in your country which you feel have achieved this level of education. List the factors which you think are reflective of quality education. Compare your list with the following list.

Some of the factors which contribute to quality education include students learning how to:

- ❑ learn;
- ❑ think creatively;
- ❑ solve problems;
- ❑ reason abstractly;

while also gaining sound basic literacy and numeracy skills, and a level of technical organizational skills. Quality education also includes the acquisition of values and attitudes.

Rating excellence

Excellence, though readily recognized, is difficult to quantify and to measure, because testing for excellence is subjective as well as objective. One of the major means of assessing the performance of education institutions has been through the performance of students in tests. However, while students' performances can be objectively tested, test results do not always reflect the effectiveness of the institutions themselves. Moreover, the standard of excellence cannot be determined only on the basis of test scores; the affective area of the curriculum is equally important. Institutions that produce students who have excellent test scores but are poor in work attitudes and have questionable value systems cannot be said to be effective schools. In assessing the quality of institutions, account must be taken of the affective as well as the cognitive areas. The role of the teacher in promoting excellence is of paramount importance. Like students' performance, the teachers' performance cannot easily be rated effectively, especially performance at the level of excellence.

Factors which Influence Learning

Activity 3.2

Self-reflection. Reflect on what has influenced your learning. List factors or events which have influenced your learning in a positive way, and in a negative way. Now form small groups and exchange lists with your colleagues. Share your stories/experiences which illustrate these factors. Identify common factors.

Your list may have included the following:
- ❑ the learning environment – the school building, the classroom and its resources, the community;

❑   the teachers and their methods of teaching;

❑   the curriculum;

❑   learning materials;

❑   instructional time;

❑   your own ability and readiness to learn.

All these factors play an important part. The new thrust in technology, however, demands certain priorities. There has to be greater emphasis on communication skills. The need to relate classroom practices and theory to real-life situations is also increasing. Pupils have to be taught how to transfer knowledge gained in classrooms to the world of work. Teachers also have to help students develop creative, analytical and planning skills, as well as problem-solving techniques, since more of these skills are required today. To do this, teachers have to understand how children learn. It is also essential for them to give children a sense of success and the feeling that they can go on learning new things.

Activity 3.3

Individual Activity

Illustrate or describe two different teaching styles. You may wish to consider one that is teacher-centred and one that is student-centred. List under each what can be effectively achieved.

Consider which of the two styles will allow for greater emphasis on 'process-learning', i.e. an approach that starts with questions rather than with a set of answers to be learned. Such an approach requires the active participation of the learners; they seek their own information, they formulate questions, they devise strategies for achieving their goals.

Write a recommendation for a 'role-model' teacher.

Underline his or her key qualities.

Now check whether these include a teacher who:

❑   understands how children learn, and who can help them to develop their understanding progressively and at a pace appropriate to their development, while taking into account individual differences;

❑   lets pupils know what is expected of them;

> ❏ provides pupils with opportunities to practise and apply what they have learned, particularly in relation to their own experience; and helps them develop creative and analytical thinking skills;
>
> ❏ monitors and evaluates pupils' performance in such a way that pupils can learn from their own mistakes;
>
> ❏ helps pupils develop independent learning skills.

Teachers not only need to be properly trained and qualified, they also need to have a positive attitude to their work and their students. Many of the important values of society – respect and tolerance for others, for example, have to be transmitted by them to their pupils. Caring for children - though not measurable, is another essential quality that teachers need to possess. This is often what makes the difference between a mediocre teacher and a good teacher. Read this definition of a good teacher by Noelle, a student:

> *A good teacher is one who helps build a student's character,*
> *not destroy it. A good teacher is someone who takes time*
> *to find out the problems facing students which interfere*
> *with their performance.*

Low salaries and poor working conditions have a negative impact on the status and role of teachers in the community. Our modern society, unfortunately, too often confers respect and status on individuals in proportion to their wealth and subsequent power, and tends, therefore, to pay too little regard to its teachers. The result of all this has been a general decline in the quality of teachers. Some of the better teachers have been forced to leave for better-paid jobs and some who have remained have low morale and little self-respect. This in turn results in these teachers having little respect for education and for their students.

The Joint ILO/UNESCO Recommendation for 1988 has acknowledged this:

> *If education does not command the respect and support of the*
> *entire community, teachers will not command that respect and*
> *support. ... The converse is also evident; as teachers are*
> *regarded, so are education and the schools. Respect for*
> *teachers engenders respect for the function they perform.*

It has also been suggested that greater emphasis on the ethical dimensions of the teaching profession might help enhance its image. If teachers, like other professionals, had to take an oath regarding their work and moral standards they might gain more respect from society.

Comment

Of particular importance is the teachers' work with the community. This approach needs to be used in more schools as it is clearly one way of bridging the gap between school and community, and making learning more effective. Curricula can also be designed to address specific situations in the community. In one African country, teachers and villagers in a rural community, involved in a project set up by UNDP and UNESCO, devised a curriculum that emphasized the practical and self-help. As a result, strategies were developed to improve the quality and quantity of the rice crop and to develop more effective agricultural instruments.

In these situations, students learn through doing, experience success and so are motivated to continue learning. They come to see learning as a lifelong, meaningful activity. The curriculum, therefore, must relate directly to practical situations in the community rather than contrived situations in the classroom. Addressing real-life situations is the key to effective learning.

We also need to pay attention to the scope and sequence of the curriculum. Clearly developed steps and appropriately paced instructional materials have to be included in curriculum reform. The actual instructional time is also very important. Too often actual teaching time is interrupted by national holidays, the weather and also by legitimate school business including activities such as practice for school functions and national competitions. The situation is made worse in countries in which the school year is exceptionally short. The result is that students suffer because the subject matter cannot be covered adequately in the shortened time and because this may lead to the use of unsatisfactory methods such as rote learning.

So far, we have been discussing the teachers, their methods and the curriculum. We will now look briefly at the _environment for learning_ (see also Topic 5).

The economic recession facing many developing countries seriously affects the conditions under which their children learn. Many of the children are likely to attend schools with poorly equipped buildings, a very low financial input for teaching/learning materials and a high pupil/teacher ratio. In this situation, the community can provide important support. Relations between schools and their communities can be fostered so that not only do the schools link learning to real-life situations, but the community feels an integral part of the learning process. It becomes a source of funding and also of expertise, providing 'teachers' with the practical experience of various subject areas. Respect for schools and their property can thus be encouraged (see also Topic 10).

Studies have shown that learning materials have a significant effect on students' learning. The quality of textbooks and teachers' guides is particularly important; texts need to be appropriately illustrated, factually accurate and carefully sequenced, with tests and quizzes that can help teachers assess pupils' progress. Teachers' guides which include information on what and how to teach, in addition to diagnostic tests, have been found to be most useful.

Children who come to school hungry and under-nourished have a lowered capacity for learning. Where students are unable to meet basic health requirements a school health programme is necessary. It should provide for:

❑ regular immunization;

❑ a school feeding programme;

or:

❑ nutrition as a topic in the curriculum;

❑ special health services for children who are at high risk of chronic conditions.

Focusing on health and nutrition as a topic will help to make learning more effective (see also Topic 5).

Activity 3.6

Look at your list of factors which influence learning. In small groups, design a questionnaire to find out how these factors do, or do not, contribute to effective learning in a primary school.

Discuss with your team-mates what steps need to be taken to improve the situation in your school.

Assessing Learning Achievement

Now look at your reflections. Not only are final results (summative evaluation) needed, as they are often used to decide promotion from one level of the education system to another, or to the world of work, but evaluations which feed back to pupils, teachers, schools and parents what has, and has not, been learned, and why (known as formative evaluation), are also necessary. Such evaluations are diagnostic, providing information to teacher and pupils about the next stage in learning. You may also have referred to the three basic modes of assessment: classroom-based, school-based, external.

Did you write about the usefulness of assessments? Did you include that assessment is also meant to make learning more effective? Was that your experience?

How assessment can be used to make learning more effective. For assessment to be effective it must be seen as part of the teaching/learning process. Teachers need to use assessment as a way of monitoring their pupils' progress – to find out what has been understood, what has not been, and why. Based on this information, they then plan strategies to correct the situation. They should inform individual pupils about their strengths and weaknesses, indicating clearly to them how they can improve. Teachers should also note that they will have to modify their own approach based on what their assessment of their pupils has shown. Teachers sometimes make the mistake of thinking that it is only their pupils who will need to make changes in order for improvement to take place.

Some of the basic premises upon which assessment activities should be based are:

1. They should result in increased pupil motivation.

2. They should focus on the most important topics of learning.

3. They should measure higher-order learning skills such as problem-solving, critical thinking and reasoning.

4. They should be appropriate to the level of difficulty of the curriculum and to the reality of the classroom.

5. They should test the cognitive, psychomotor and affective domain. They should include pupils' ability to transfer and relate knowledge to the world outside the classroom.

6. They should provide prompt, relevant and useful feedback.

Activity 3.8

Form three groups. Each should carry out one of the activities described below. Each should record its findings and report its conclusions to the group as a whole.

1. Select two assessment activities, either from a grade 5 primary textbook or from observation of a primary-school class. You may if you prefer choose a national examination.

Examine these in light of the above premises.

2. Design an assessment activity, to be used with a grade and topic of your choice. Remember to pay particular attention to items 3, 4 and 5 of the basic premises, above.

Discuss how you would use the activities to motivate your students.

3. In the Philippines, and some other countries, honesty, co-operation and other values and forms of behaviour are evaluated and scored. Is this so in your country?

Discuss means of evaluating affective behaviour. List items that would be included for evaluation, for example, politeness, respect for others and honesty, and state how these would be evaluated and scored.

Comment

You need to take special note that for assessment to be of significant value to learning the teacher has to pay greater attention to the use of the results. She or he has to look at why the results occurred and not just record them.

Reading

Reading 3.1
New Roles for Teachers

As a means of improving quality in primary schools, the Ministry of Education of Indonesia, in co-operation with the Overseas Development Administration of the United Kingdom, the British Council and the University of London Institute of Education, developed the Cianjur Project, also known as Active Learning and Professional Support (ALPS). This project encompasses curriculum revision and development; strategically located practice courses; new classroom practices; a revised interpretation of supervision involving dedicated co-operation of the teacher, head-teacher and supervisor; an emphasis on active learning and greater communication of ideas among teachers. ALPS, begun in the town of Cianjur in 1980, was widely disseminated throughout Indonesia in the 1980s in both public and private schools. It is expected to expand gradually so that 70 per cent of Indonesian primary-school children will be participating in an improved activity-based education programme by the mid-1990s.

Primary schools participating in ALPS must provide children with appropriate activities to assist their learning. Special attention has been given to selecting activities and tasks which require children to think carefully, to use the available classroom resources and to learn to solve problems. Children are being encouraged to be active participants in the learning process.

Teachers play a central innovative role in the ALPS programme. They assist learning by providing opportunities for problem-solving based on real observation. Teachers are encouraged to be imaginative in providing the children with applicable problem-solving opportunities rather than relying on the once pervasive rote-memorization classroom method.

Teachers are also encouraged to use the environment as a resource for learning. Visual stimulation for the children is promoted through the use of wall decorations and table displays using articles from the local environment – plants, flowers, stones and other natural and man-made objects. Visits to ponds and rivers to study ecology and visits to historical sites to learn about the past, as well as exposure to community activities, are encouraged.

Teachers are taught to work co-operatively with the community in providing relevant activity-based educational experiences for the children. As an extension of the concept of using the environment as an educational resource, teachers are encouraged to invite community leaders, local shopkeepers, craftsmen, etc., to visit the classroom, and share their experiences and expertise with the children.

Training seminars and workshops are being provided for teachers, head-teachers and supervisors to promote new ideas and give direct experience in planning and conducting lessons based on the active learning concept.

To promote the desired sharing of ideas among teachers, five to eight schools are grouped together forming a 'club' which then meets on a regular basis. These clubs create new teaching programmes, discuss classroom problems, present innovative ideas for teaching and exchange teaching experiences.
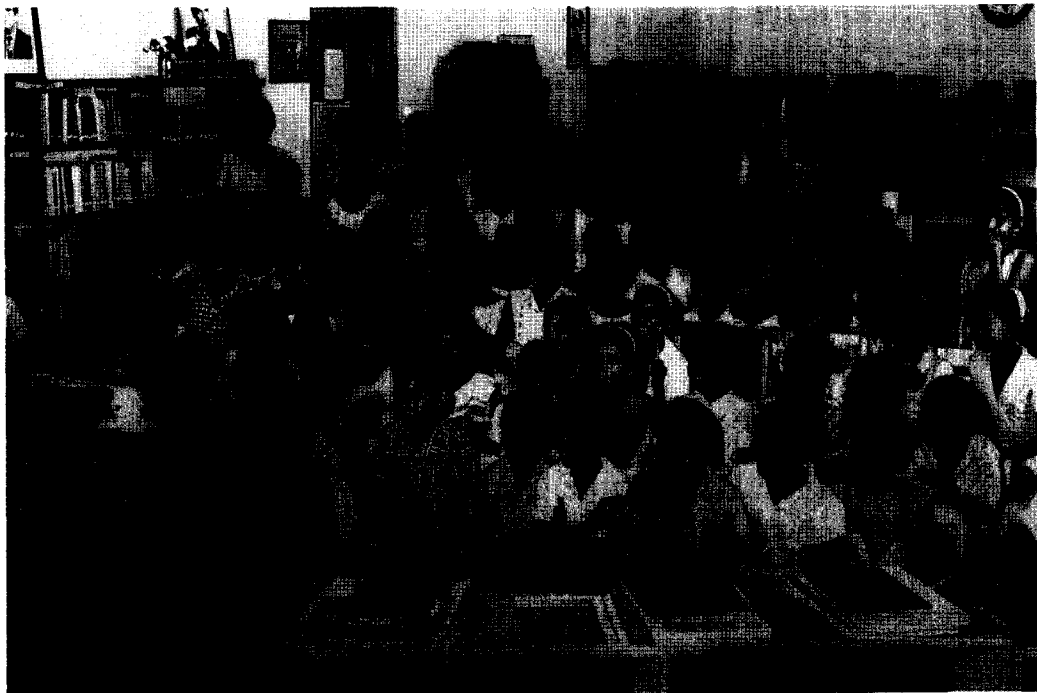
Help and guidance for teachers are provided through Teachers' Centres, where teachers, head-teachers and supervisors hold meetings and participate in courses. Teachers' ideas and work are displayed and discussed and materials are made available for teachers to use in developing learning aids.

The ALPS programme also provides the infrastructure to give help and guidance to local authorities in planning for Indonesian primary schools through observation, monitoring and analysis of the project. Herein lies the basis for further development and refinement of the Indonesian primary-school system, based upon a strengthened innovative role for teachers within a supportive community context.

Source: EFA Monograph III.

Broadening the Means and Scope of Basic Education

UNESCO/Biblioteca Escolar Piloto, C.P. de Arosemena

TOPIC 4

CONTENTS

Broadening the Means and Scope of Basic Education

Introduction

Human resource development is a never-ending lifelong process. It is a major component in strategies designed to improve the ability of countries to take advantage of technologies that are imported or home-made. Basic education, which takes account of the requirements of an evolving world, is the foundation upon which are built the skills and knowledge and the attitudes and values needed to move into the work-force or to continue with further education.

There is sufficient evidence to conclude that where workers seem to have broad general skills, managers may enlarge the scope and content of the individual worker's job. On the other hand, workers who are poorly educated and trained are less flexible and unable to learn the new and multiple skills required to work with new technology.

The pace of scientific discovery and application of technological findings to business and commerce is accelerating. This is giving rise to new products and transforming production processes. The consequence is an increasing need for education and training, coupled with a constant demand for retraining.

Education must prepare and equip generations of young people to confront the challenges posed by development in all fields of human endeavour and by the enormous complications of modern society. This topic – broadening the means and scope of basic education – redefines basic education to take account of the complementary and mutually reinforcing elements which go to make up an integrated system. It will attempt to provide a view of education as a lifelong process comprising various overlapping and interrelated stages. It will focus on the use that can be made of radio, television and other media in basic education, with examples of concrete working programmes, including distance education.

Learning Outcomes

By the end of this topic you will have:

❑ considered the scope of basic education in relation to the complementary and mutually reinforcing elements which make up an integrated system;

❑ reviewed the implications for meeting basic learning needs in the context of education as a lifelong process;

❑   focused on the use that can be made of radio, television and other communication media in basic education;

❑   reviewed various types of distance education and considered ways of enhancing their impact and contribution to the goals of Education for All.

A. The Scope of Basic Education

'Basic education' may be defined as the very minimum of knowledge, skills, attitudes and values that will enable individuals to operate with a reasonable expectation of success in their community/society. There was once an oversimplified perception that this would be achieved by the mere acquisition of 'the three Rs'. However, the increasing complication of the personal, social, economic and political demands made on each individual, without exception, has led to a widening of the scope of what is to be achieved.

Literacy is not simply the ability to read words and sentences. It is also the ability to extract information from the printed page. This is now consciously perceived as the ability to gain information on how to keep ourselves healthy, how to become a good parent, how to learn what is happening in society. Writing is more than a manual skill, or the ability to sign one's name. It is a powerful means of communication, whereby we can express feelings, explain a point of view or contribute to the community's expression of its needs. Numeracy goes far beyond addition, subtraction, multiplication and division. It pervades our lives when we buy and sell, when we tell the time or the date, when we judge speed or temperature, when we attempt to judge the amount of work we have completed, and many other details of modern existence. Scientific and technological literacy have become indispensable for life in an increasingly technological world.

The operations of daily living are constantly making more and more complex demands on what we need to know.

Activity 4.1

Working in small groups:

1. Discuss the difference between:

(a) merely reading words and sentences and the use that can be made of reading.
(b) the manual skill of writing and the use to which we can put our own written words.

2. Consider the pervasiveness of calculations in modern-day living.

3. Consider reasons why science and technology should form part of basic education.

Who Gets Basic Education?

The still-common perception that education is only for children is an over-simplification; although it is true that opportunities for education has tended to spring up where there were children to be taught, an adult who could teach them, a location where this could take place, and the resources necessary to underwrite such a project. Clearly the scope of basic education has widened and the clients now include adults whose most urgent need is to make a living in a rapidly changing world. Inevitably, the means of delivering this education will also have to be changed and broadened.

Inevitably also, there are teachers who are inadequate for the tasks; there are children who live in inaccessible areas; there are parents who are not interested in taking advantage of the opportunities offered. As a result, in most countries, but particularly in poor, developing countries, there are those from the very young to the very old who cannot be said to have achieved basic education; there are teachers not properly prepared for the task; and there are areas – particularly the rural and deep rural ones – where there are limited opportunities, or no opportunities at all, for formal education.

The diversity, complexity and changing nature of the basic learning needs of children, youth and adults makes it necessary to broaden and constantly redefine the scope of basic education to ensure that all its components are included in an integrated system. Moreover, they should be seen as complementary and mutually reinforcing factors of vital importance for the contributions they can make to the creation and development of opportunities for lifelong learning. Key components which have been identified include:

- ❑ early-childhood care and initial education;

- ❑ primary schooling, which is the main delivery system for the education of children;

- ❑ education of youth and adults through a variety of delivery systems including literacy programmes, skills training and specialized teaching of various kinds.

These three components should be articulated as part of a continuous learning process (see World Declaration on Education for All, Article 5).

To reinforce the key components, use should be made of the mass media and of all other available instruments and channels of communication, information and social action to convey essential knowledge and to inform and educate young people on social issues.

Early-childhood Care

Early-childhood care and initial education begin in the family and their quality can affect later learning. It is at this early stage that the basis of language is laid, attitudes and social relationships are shaped and values are transmitted. Early-childhood care and education in themselves constitute a form of basic education as well as a preparation for later learning (see also Topic 5, Reading 5.2).

Primary Schooling

Outside the family, primary schooling is usually the main vehicle for meeting the basic learning needs of children. Beyond their concern to provide school places for all children, some countries report dissatisfaction with the results of primary schooling: poor completion rates and low achievement. Given limited resources and the severe constraints faced by many countries, it is of critical importance to concentrate available resources on interventions that improve learning, are cost-effective and suited to large-scale implementation.

The effectiveness of primary schools can be improved through directing greater attention to the curriculum, learning materials, teaching time and the nature and quality of classroom teaching. Above all, the quality and effectiveness of the teachers are of crucial importance and they in turn are dependent on the attitudes, motivation and quality of teacher training (see also Topic 3 and Reading 5.3).

Education of Youth and Adults

The basic learning needs of youth and adults are diverse and should be met through a variety of delivery systems. Literacy is an essential basis for other learning, necessary for the full participation of individuals and groups in development. For example, literacy programmes for women can have a dramatic impact on the way women perceive themselves and conduct their lives. Non-formal learning activities are often part of other development interventions such as those dealing with rural or community development, with public health, and with agricultural extension work. Non-formal education for youth and adults should provide opportunities to learn a variety of life skills and job skills, as well as basic literacy and numeracy.

Non-formal education can be classified as being of the following main types: para-formal, popular, personal improvement, and professional/vocational. _Para-formal_ embodies programmes (such as evening classes) that provide a substitute for formal schooling; they offer a second chance to those unable to attend regular schooling. _Popular_ education is explicitly aimed at marginalized groups and addresses area such as adult literacy, co-operative training, political mobilization and community development. Education for _personal development_ (music, fine arts, languages, sport...) is usually provided by clubs, cultural institutions and associations and, in most cases, involves payment by the learner. Non-formal _professional and vocational_ training may be provided by public bodies, industry and commerce, trade unions and private agencies, as well as by specialized agencies (see also Topic 5, Reading 5.4).

Activity 4.4

Group Activity:

Identify the main types of non-formal education available in your country.

Discuss how they might be developed and improved.

What links, if any, are there between formal education and non-formal education of youth and adults?

How can such links be improved?

Channels of Information and Communication

The role of the media is assuming increasing importance in Education for All. Television, films, video and radio can provide direct information and educational messages to children, youth and adults and may also be used in training programmes for teachers and educators of various types in both the formal and non-formal systems. The media can be used to supplement conventional education systems, as they do through school education and television; they can also be the principal carriers of non-formal systems. The mass media, and notably television, have a significant impact on informal

learning processes. For example, what children see on television can fire their imagination and is a force that must be reckoned with in planning formal education programmes and in day-to-day classroom teaching.

Looking to the future, communications media, both mass media and smaller community-based formats can be valuable adjuncts and supports to education and development processes. Linked with computerized systems, they can help to improve the quality of information readily accessible to learners. They can be particularly valuable in helping to educate the public about socially and economically relevant issues such as those concerned with the environment, applications of science and technology, and issues related to health, nutrition and population.

Activity 4.5

Group Activity:

Working in small groups, identify and discuss the ways in which the mass media – especially radio and television – are contributing to meeting basic learning needs in your country.

Are there ways in which they exert a negative influence?

How can their positive contribution be enhanced – especially through different forms of distance education?

B. Alternative Delivery Systems: Distance Education

The basic learning needs of families and communities are diverse and changing. Over time, their learning needs as parents, workers and active participants in social, cultural and political life can only be met by a variety of delivery systems. They will also require a broad mobilization of social institutions, communication media and family resources. Both the economic and intrinsic benefits of meeting basic learning needs will have to be identified and estimated and this information will require the widest possible dissemination.

The goal of this mobilization must include the provision of basic education for both individuals and communities. 'Grassroots' support for basic learning needs, together with the resources of national and international non-governmental organizations such as religious institutions, governmental organizations, civic bodies and professional organizations, will have to be exploited to the fullest. This can be achieved by the imaginative use of communication media for distance education which can reach people who would otherwise be deprived of opportunities to learn.

What is Distance Education?

Distance education has been defined as an educational process in which a significant proportion of the teaching is conducted by someone removed in place and time from the learner. It can be referred to as packaged learning, supported self-learning, or flexible learning. It often means that individuals work on their own with specially written modules which systematically introduce new concepts, ideas and techniques.

It is generally identified by the following principal characteristics:

- ❑ the separation of teacher and student;

- ❑ the influence of an education institution;

- ❑ the use of audio-visual and written materials;

- ❑ the provision of two-way communication between learner and teacher;

- ❑ limited group-learning opportunities, with students taught largely as individuals while retaining the possibility of occasional seminars with other learners;

- ❑ learning which occurs away from the group.

Distance education is used essentially for two purposes: to improve the quality of instruction, when used in addition to other methods, and to provide access to more learners. Improving quality is especially important in primary schools when trained teachers are in short supply (e.g. in rural areas). Access to education can be increased through non-formal distance education programmes for adults, such as 'Acción Cultural Popular' in Colombia.

There are, however, several myths surrounding distance education. There is a widespread belief that distance education is a way of replacing teachers in schools. Rather, it is a means to support them with high-quality materials. It is also a means to support adult groups in a whole range of non-formal learning activities. Secondly, distance education is seen as boring. This is certainly not the case with modern distance education, particularly when use is made of a variety of technologies.

Types of Distance Education

Distance education has demonstrated its usefulness in three main areas:

- ❏ Interactive radio, used in schools by both trained and untrained teachers to improve the quality of instruction.
- ❏ Printed materials, used to reach out-of-school groups and individual learners who cannot attend school or for whom school would be inappropriate. Paper-based materials are the most popular, to date, in developing countries.
- ❏ Radio and television/video used, for example, in the in-service training of teachers, sometimes in the use of new instructional materials.

Activity 4.7

Working in groups, consider the following questions in the context of your own country.

Is there a need to improve the quality of education in your community/country?

If so, in which areas?

If not, what are the factors that contribute to the high quality of available education?

Is there a need to make education more accessible to individuals in your community/country?

Of so, in which areas and for which groups?

Who would benefit tremendously from a distance education programme in your community/country?

Specify particular target groups.

Is distance education a viable option in improving the quality of education and in making education more accessible to learners?

If so, how?

If not, why not?

List areas or aspects of education in your country that could be improved or made more accessible through a distance-education programme.

What are some of the myths surrounding distance education in your community/country?

Interactive radio

This generally involves lessons of 20–30 minutes duration, followed by a 15–30 minutes teacher-led activity. The radio programme is interactive in that it prompts a student response every few seconds to answer questions, perform spoken or written exercises, and use simple materials. Supplementary activities for the student to use in school or at home are often provided in the form of printed student worksheets.

The radio programme is carefully structured and sequenced on well-established principles of how children learn. Lesson segments are systematically tested and revised until they are effective. Each lesson calls for frequent and active student responses.

Comment

Careful evaluation of the programme in countries that have successfully used it, such as Honduras and Lesotho, show that in most cases pupils' achievement is higher than in conventional classes, sometimes dramatically so.

Radio for out-of-school learners

This form of distance education is used mainly to reach adults as well as children in non-conventional or non-formal schools. Such a programme may be used to deliver a primary school curriculum (mainly for children), for example, 'RADECO' offered in the Dominican Republic where children from a poor area in the country were prevented from attending school because their labour was needed in the fields.

Other programmes provide instruction in literacy and numeracy combined with life-skills, practical skills geared to production and sociopolitical consciousness-raising and mobilization. A similar programme offered to adults in Colombia included hygiene, nutrition, child care, family planning, agriculture and literacy.

Comment

Evaluations show this approach to be an effective non-traditional route to basic education that succeeds in improving the quality of life for rural people.

Television and radio

Although television has its limitation in terms of cost and accessibility, it can be an effective means of distance learning. It provides the learner with two modes of learning; the auditory as well as the visual which facilitates demonstrations and graphics.

The medium of instruction is appropriate to a wide cross-section of individuals – young or old, literate or illiterate, including the visual- and hearing-impaired.

Activity 4.8

Group Activity:

Discuss in small groups, which of these modes of distance education would be the most accessible to your community/country, in terms of reaching the largest learning groups?

What kinds of educational improvement for inaccessible groups could be served most appropriately under the following headings:

In-school interactive radio	Radio for out-of-school learners	Television/ video	Paper-based learning materials

The conditions for success of distance education include:

❑ clear planning and goal setting;

❑ well-identified benefits and demands;

❑ instructional materials carefully designed and refined through user feedback;

❑ instructional material of high quality;

❑ strong local participation;

❑ a sound organizational infrastructure;

❑ a sound policy environment.

Activity 4.9

Group Activity

Go through Reading 4.2, Distance Education in Belize (page 13). Discuss the following:

❑ Are the conditions outlined above for success of a distance-education programme evident in this programme?

❑ If so, use evidence from the text to substantiate your answer.

❑ If not, state how these conditions could have been met.

Enhancing the Impact and Contribution of Distance Education

Distance education projects need careful planning and realistic goals. A decision to undertake a distance-education project should be based on a determination that it is the best approach for achieving certain educational objectives and not simply an opportunity to use an interesting new technology.

Distance education has been criticized for de-emphasizing the human interaction and socialization aspects of education. Distance educators have therefore acknowledged these limitations and have responded by building-in important face-to-face discussion sessions. Also, they have not tried to cover all subjects through this method. Problems in distance education are further complicated when participants' mother tongue differs from the language of the programme. Methods involving a combination of radio, face-to-face discussions, and the use of printed materials, help to solve this problem.

Activity 4.10

Group Activity

Does the Belize distance- education programme address the important aspects of distance education? How?
Use materials from the text to support your answer.

The programme focused on distance learning as an alternative system to the intramural approach currently employed at the Belize Teachers' College.
To what extent could such a system be used in your country?

What makes Distance Education Effective?

Research has shown that there are few distance-education programmes which do not suffer from high drop-out rates. The reasons vary from economic to social factors. However, the major contributory factors appear to be lack of effective and appropriate approaches to learning and lack of tutorial support.

Since many individuals enrolled in a distance-education programme may not have had any intensive academic training, it becomes imperative to include support programmes to improve learning skills, the objective of which is to facilitate learner awareness and understanding of the learning process involved in distance education, in ways such as the following:

❏   make the learners aware of the nature and purpose of various study tasks and gradually develop specific strategies to tackle such tasks;

❏   wean the learners away from approaching all learning tasks in the same manner and help them to adopt flexible approaches suited to particular study needs;

❑ set guidelines into a pragmatic context of learner motivation, lifestyle and abilities, on the one hand, and the nature of the materials and learning activities, on the other;

❑ establish mechanisms to pace the student's learning, e.g. by using daily radio broadcasts in conjunction with printed material.

Institutionalization is also an important factor in enhancing the impact of distance education. *This requires the education leadership of a country to be firmly committed to and involved in the ownership of the programme.* Those preparing the materials must be professionals who have been trained in the development of distance-education materials. Principals and supervisors must be trained and given meaningful roles for implementation of the programme.

Activity 4.11

Go through Reading 4.3, Distance Education in the Nine High-population Developing Countries (page 16).

Discuss in groups:

If you wanted to initiate a distance programme in your country, what are the first steps you would take?

Comment

Distance education should be regarded as a whole range of alternative and complementary delivery systems. Although it is not a panacea it may be the only option for many. It has proved useful, for example, in the empowerment of women and in reaching learners in the rural areas where good teachers are scarce.

Readings

Reading 4.1
Early-Childhood Care and Initial Education

Basic learning begins within the family and the local community. Learning does not begin on entry to formal learning activities but at birth; indeed, significant determinants of learning originate prior to birth. Early-childhood care and education in themselves constitute a form of basic education as well as a preparation for later learning.

The early years of life are of signal importance to the physical, intellectual and emotional development of the child. Development proceeds rapidly in the early years of childhood: the basis of language is laid, attitudes and social relationships are shaped, and values are transmitted. This, all at a time when the mind is at its most receptive. Early-childhood care and education must be included in the scope of basic education, both for their immediate formative value and for their influence on later learning. The goal of Education for All will be better achieved if the basis for it is laid at a very early age. Good early-childhood education programmes are likely to have a valuable and sustained effect in later life. In recent years, a wealth of experience has been accumulated about how to organize effective programmes of early-childhood care and development and a range of programme options is available.

The role of parents and the immediate family circle is crucial in a child's early years. They have a special role as the child's first educators. A stimulating home environment helps a child's development. At the same time the 'parental' factor in formal day care can diversify and enrich the services offered by day-care centres, where these exist. Where parents are regarded as partners with day-care centre staff they can acquire greater knowledge and skills to support the children's development (see also Topic 5).

Reading 4.2
Distance Education in Belize

Belize is the country that can most convincingly claim to be both Central American and Caribbean. It stands out in Central America because of its mainland status and its relatively large Latino population and multi-ethnic society. However, it is a Caribbean country by virtue of its official language, cultural history and colonial legacy. This has led to considerable linguistic and cultural diversity among the population. The ethnic groups tend to concentrate in particular parts of the country. Also, many speak their own languages and have their distinctive cultures.

Another distinguishing feature is Belize's relatively low population density: approximately 220 persons per square mile. 45 per cent of the country's 189,000 inhabitants are under 14 years of age and almost half the population live in urban centres. These demographic characteristics have a significant impact on the

education sector. Of the 236 government and government-aided primary schools, 68 per cent (160) are classified as rural, 34 of which are in remote outlying areas where roads are bad, public transport is scarce or non-existent and some places are only accessible on foot.

Teachers and principals in these rural areas face special challenges such as lack of textbooks, multigrade classrooms and pupils for whom English is a second language. A further challenge for principals is that many of the teachers in the schools are untrained. Only 47 per cent of primary-school teachers are trained; approximately 65 per cent of those in rural schools and 35 per cent of those in urban schools are untrained.

Such situations tend to produce low-quality performance including low levels of reading achievement, poor performance in mathematics and general lack of adequate preparation for secondary-school studies.

In 1992, the government embarked on the Belize Primary Education Development Project. The object was to reform six aspects of primary education: the physical infrastructure, the curriculum, textbooks and teaching materials, examinations and assessment, planning and management, and teacher education.

The revision of teacher education was a key area for improvement and the aim was to improve the quality and efficiency of teachers in primary education and increase the number of trained teachers to 80 per cent by the year 2000.

Distance education was to be used as the major vehicle to achieve these goals.

The target group for the distance-learning programme

The target group for the first phase of the programme are the untrained teachers practising in three of the six districts of Belize. The second phase will be addressed to teachers in the remaining three districts. The particular aim is to reach those regions within the districts which are characterized by remote rural schools, few, if any, trained teachers, poor roads and scarce public transport.

Who are the learners?

Many of the teachers in Belize have an incomplete general education and no professional training. A typical teacher in the distance-learning programme would have had several years' teaching experience.

Characteristics of these teachers are:

- ❑ they work full time as teachers;

- ❑ they either live in villages where they teach, or travel considerable distances each day to and from their schools;

- ❑ a high proportion of them are women who also have to take care of their families;

- ❑ they have very limited resources (books, materials, etc.);

- ❑ they often do not have ready access to electricity, radio, television and telephones;

- ❑ they often have different first languages;

❏ all are able to visit the designated district resource centre at least once a month (they often do so to collect their pay).

What are the aims of the programme?

The major purpose is to improve the quality and increase the number of trained teachers. By doing so the programme will build an infrastructure for further in-service initiatives.

How is Belize Teachers' College involved?

Located in the capital, Belize Teachers' College is the only teacher-training institution in the country. This means that teachers within the primary-school system who wish to receive training are unable to do so without leaving their homes and families. Thus, although the college has been in existence since 1965, only 47 per cent of the teaching force is trained.

The staff of the college are now working to expand and revise the training programme. Their plans include the design of course and instructional materials with a more child-centred, activity-based approach to learning in primary schools. They also cover the design and delivery of specially constructed modular distance-learning materials to cater for the in-service training needs of teachers in the districts. Attention is being given to providing teachers with strategies to support the learning of bilingual pupils and those attending multigrade schools.

The college's Distance Learning Programme provides an alterative to the training of teachers on campus. It provides an opportunity for teachers in the districts, especially those with heavy family commitments, to acquire qualified-teacher status without having to leave their schools for long periods.

Advantages of distance education

Among the advantages of distance education the following are some of the most important:

❏ it can make education more accessible to a wider cross-section of learners;

❏ it provides opportunities for more people to learn while they earn;

❏ it can reach into the home of the learner in situations in which direct contact between teacher and learner is not feasible or possible;

❏ it can use learning materials that have been professionally piloted and validated;

❏ it can make structured use of learning objectives;

❏ it can encourage and stimulate the learner through self-assessment, questioning and guidance;

❏ it can provide flexibility of pace to suit individual needs and circumstances.

In addition to a three-week face-to-face introduction at the college at the beginning of the programme, a thirty-hour study-skill package is being offered. The object is to:

❏ facilitate learner awareness and understanding of the learning process involved in distance education;

- ❑ make learners aware of the nature and purposes of various study tasks and progressively develop specific strategies to tackle them;

- ❑ wean learners away from approaching all learning tasks in the same manner and help them to adopt flexible approaches suited to particular study needs;

- ❑ set these guidelines in a pragmatic context bringing together learner motivation, lifestyle and abilities' on the one hand, and the nature of the materials and the learning activities' on the other.

The study-skill package thus covers topics such as:

- ❑ improving your study techniques;

- ❑ improving your reading;

- ❑ improving your vocabulary;

- ❑ understanding texts;

- ❑ taking notes;

- ❑ writing essay assignments;

- ❑ organizing texts;

- ❑ revision and examination techniques;

- ❑ writing research papers.

Reading 4.3
Distance Education in the Nine High-population Developing Countries (Bangladesh, Brazil, China, Egypt, India, Indonesia, Mexico, Nigeria and Pakistan)

The experience of the nine countries varies from one to another but together they present a range of models which others can usefully study in planning their own development. What the nine have done, and what they will continue to do, is certainly likely to have an influence on developments in other parts of the world. Some of the most relevant factors are described below.

Meeting basic learning needs of the unreached

Various forms of distance education are being used to meet the basic learning needs of the unreached. In India, the National Open School plays a key role in the process of universalizing basic education for all, in enhancing equity and social justice and in creating a learning society. It offers a wide range of academic and vocational courses, as well as a number of life-enrichment and bridging courses at the entry level. Catering for students of all ages over 14, it has been successful in attracting women, who make up 38 per cent of the enrolment, while half of all students, including women, are from marginalized groups in general. Great emphasis is placed on quality in the use of the written word as a vehicle for its courses as well as employing other more advanced technologies, including instructional television, and audio and visual programmes. It is noteworthy that the

unit cost per student is less than a quarter of the cost in a formal school. The programme derives benefit by making use of the existing school network to serve its students while at the same time enriching that infrastructure by providing access to facilities not normally available to the schools.

In Indonesia, 'Packet A' which corresponds in content to formal primary education, while also catering for post-literacy needs, de-emphasizes purely academic concerns in favour of emphasis on relevant science issues and concentration on life skills. Using the printed word as its main vehicle, the package seeks to motivate all members of the community able to teach to do so. Under the theme 'each one teach ten' it is reported to have trained 8 million students, nationwide, 60 per cent of them women.

Allama Iqbal Open University in Pakistan also uses the printed word as its main vehicle to reach students wherever they are, in the home or in the work-place, at any time of the year. For its regular courses, which range upwards to degree level, the university provides its students with complete self-instructional packages including self-assessment packages and written assignments. There are radio and television programmes which supplement these packages and the students also receive tutorial support from teachers in their own locality. Study centres, regional offices and the main campus offer students a variety of resources and opportunities for contact with tutors and fellow students. The university also has a basic functional education programme to reach out to non-literates. Based mainly on packages comprising cassettes and flip-charts, the programme concentrates on developing an infrastructure for outreach and for the training of teachers

Teacher-training and upgrading for EFA

Distance education can be of special value in addressing the training needs of people who cannot be removed from their regular duties for long periods of time to follow training courses away from their places of work or residence. This is of special relevance for education authorities and for teachers since prolonged absence on training courses may well work to the detriment of the pupils. Conversely, however, retraining through distance education can provide trainees with opportunities to apply what they learn almost immediately and to use their work environment as a training laboratory. This also finds its application in situations in which schools have been staffed by untrained teachers who can subsequently receive training while at work.

Since 1958, China has been using mass communication media for educational purposes. It has 170 Radio and TV schools at the secondary level and 43 Radio and TV universities with 575 learning centres and 1,500 teaching points. Programmes, including those produced by China TV Teachers' College, are distributed by China Educational TV to all parts of the country by satellite. Local educational TV stations and satellite relay stations re-broadcast these programmes and also broadcast locally produced programmes. The impact has been particularly remarkable in remote and disadvantaged areas. During a period of six years, 1.2 million primary- and secondary-school teachers participated in the courses offered.

The Teacher-training Through Distance Education project is of special interest. It involves the co-operation of local government in China and of UNICEF in setting up relay stations, receiving stations and teaching points to meet the needs of unqualified teachers. A large number of them live in rural areas and minority regions. The project, working in partnership with the existing infrastructure of Normal Schools, is promoting the use of educational TV to target 26 counties where the need to upgrade teachers' qualifications is especially urgent.

In Nigeria, where the regular teacher-training system was unable to produce qualified teachers in sufficient numbers, distance education is provided by the government-supported National Teachers Institute which has a student enrolment of 40,000. A number of universities also offer distance programmes in teacher education.

The Bangladesh Open University is helping to strengthen the country's educational potential by offering distance-education courses leading to Bachelor of Education and Master of Education degrees.

Egypt is embarking on a pilot project to upgrade teachers using distance education and is also creating an infrastructure in its schools and teacher-training centres to make better use of the media.

Reinforcing the quality and capacity of formal education

Elsewhere, distance education has been widely used to reinforce the formal education system. Mexico (with Radio Primaria and Telesecundaria) and Brazil (with Cursos Supletivos and a number of other programmes) have acquired considerable experience in the use of different media to increase access to the formal curriculum and improve the quality of the teaching process in cost-effective ways.

A number of countries in different parts of the world have developed Interactive Radio Instruction (IRI) as an integral part of the formal teaching/learning process and in some cases even as an alternative to it. IRI programmes, normally broadcast daily, provide an innovative injection to reinforce teaching in core areas of the curriculum. These programmes, which are complemented by the teacher, are based on the principle that students learn best if they are actively involved in the teaching/learning process. Following methods which differ from the style of most teachers, the programmes are of service to both teachers and students. Research has show that IRI results in dramatic learning gains at a cost per student which is easily offset by savings generated by increased internal efficiency.

The five African countries with Portuguese as an official language (PALOP) are currently working together, with UNESCO assistance, in collaboration with the USAID-funded LearnTech project, to develop curriculum materials for Mathematics and for Portuguese as a Second Language. This approach to seeking novel solutions at an intercountry level may well serve as a model for other groups of countries sharing common or similar problems.

Source: Distance Education: Potential and Requirements, Paris, UNESCO. 1994.

Enhancing
the Environment
for Learning

UNESCO/I. Forbes

TOPIC **5**

CONTENTS

Enhancing
the Environment
for Learning

Introduction

The environment for learning embodies a complex of factors within the home and the community that affect individual capacity to learn. It is more than the school and the school system. The home plays a vital role in the life of children. They learn extensively in their interaction with their parents and other members of their family. For adults, the learning environment extends beyond the home to their place of work and to the community which affords them the opportunity to gain knowledge from their life experience. The learning experience of children and adults can be enhanced if the home, the local community, and the school system provide appropriate support. 'The education of children and their parents . . . is mutually supportive and this interaction should be used to create, for all, a learning environment of vibrancy and warmth.'[1]

Another factor to be considered is that of the quality of health and of nutrition during the early years of life; both have long-term consequences which can seriously affect performance in school. Childrens' capacity for learning is partly determined by their physical development, aptitudes and motivation to learn. Poor nutrition and health conditions interfere with a child's concentration and ability to learn. Hungry and unhealthy children are more likely to drop out of school.

This topic focuses on the important role which you, as a teacher, can play in enhancing the learning environment in partnership with families and the community as a whole.

Learning Outcomes

By the end of this topic you will have:

❏ realized and understood the importance of enhancing the environment for learning;

❏ recognized the factors that enhance/hinder the environment for learning in early childhood, in formal education and in non-formal settings;

❏ identified ways to improve the environment for learning in partnership with others.

1. EFA Declaration, Article 6.

Environment and Learning

An extreme example of the crucial importance of the learning environment is that found under conditions of war. The effects of armed conflict on children are particularly grave. Children are not only physically threatened with death, injury and disease as a result of bombing, gunfire, abuse, displacement and food and economic blockades. They are also exposed to the possibility of suffering the loss of one or both parents, homelessness, and a hand-to-mouth existence, with dire consequences on their nutrition and health, schooling, social growth and psychological development.

Armed conflict can also cause extreme disruption in the functioning and role patterns of the family, community and routines of normal everyday life. This problem gets worse as the disruption and difficulties drag on for an extended period. Little is known, as yet, about the long-term effects of armed conflict on the psychosocial development of children.

For those who are indirect victims of war, their development is disrupted by the closing of schools and clinics, the destruction of crops and roads and the deprivation of basic necessities.

These considerations may not apply to your specific situation. They are used merely to emphasize the fact that the learning environment is a vital factor if we are to pursue the goal of Education for All. However, as a teacher, you have an important role to play at such times. Go through Reading 5.1, The Role of Teachers in Times of Catastrophe (page 6), then proceed to Activity 5.1.

Activity 5.1

Individual Activity

The activity brings you closer to home as it focuses on the specific conditions in a poverty-stricken community and how these affect learning.

1. Recall a poverty-stricken community or locality that you have seen, have come across or have been involved with.

2. Reflect on the following:

❑ What are the living conditions (shelter, food and nutrition, and family life)? Describe these.

❑ What are the school conditions (teachers, educational facilities, instructional materials, etc.)? Describe these.

> Record your answers under the four headings below:
>
> Conditions in a Poverty-stricken Community:
>   Shelter
>   Food and nutrition
>   Family life (relationships)
>   School conditions
>
> 3. What do you think would be the effect of these conditions on the children's ability to learn?

Comment

The activity you have just done leads to the conclusion that children and adults from disadvantaged environments are unlikely to learn well. The environment for learning refers to a complex of factors within the home and community that affect the individual's capacity to learn. The learning of an individual starts at home, is enhanced and strengthened in school, and supported by the community. There are several environmental factors that can influence learning. You may have cited factors such as one's culture, family, financial status in life, traditions and beliefs, and many others. These factors may not all be enhancers, some may be restrainers. Let us review the life cycle of a person and the principal factors that influence his or her learning at three crucial stages: birth to early childhood; primary school; and adulthood in a more non-formal setting. Readings 5.2 to 5.4 deal with ways in which the environment affects learning at each stage and what a teacher can/should do to enhance learning during these various stages.

Activity 5.2

Group Activity

Go through Readings 5.2 to 5.4.
Discuss in groups:

What are the most urgent steps that need to be taken to improve the environment for learning:

❑   in families and early-childhood care programmes?

❑   in primary schools?

❑   in basic-education programmes of various types for youth and adult learners?

Record your findings and report back to the group as a whole.

Health and Nutrition

It has been repeatedly mentioned in this topic that health and nutrition play a crucial role in the learning process of an individual.

Over the past few years, research findings from several countries have shown that the effects of health and nutrition during the early years of life may have long-term consequences that can seriously affect performance in school. Poor nutrition and health conditions during the school period add to the developmental consequences of earlier malnutrition. They are often closely correlated with poverty and so solutions need to be set in the context of poverty alleviation. Read more on health and nutrition in education in Reading 5.5, The Role of Health and Nutrition in Enhancing the Environment for Learning (page 11) (see also Topic 11, Module 3: Health Education).

Enhancing the Local Learning Environment

This discussion suggests that there is a need to give sufficient emphasis to the concept of 'environment for learning' in basic education for all levels. The big question is: How much attention are we giving this? What do we need to do now to address the need to enhance the learning environment for various groups?

Work on these questions as a group in the next activity.

Activity 5.3

Group Activity

This activity is divided into three parts. In Part I you are asked to assess the efforts of your school and community in promoting a supportive learning environment. Part II deals with the health and nutritional status of the schoolchildren in your community. Part III allows you to take stock of your responses in Parts I and II.

Join your co-teachers and work on the following, writing down the results of your discussions.

Part I

1. Assess the efforts of your school and community in promoting a supportive learning environment in:

❑ families and early-childhood care programmes;

❑ primary schools;

❑ basic-education programmes of various types for youth and adults.

2. Which of these efforts need further strengthening?

3. What immediate steps need to be taken to improve these efforts and consequently enhance the environment for learning?

Part II

4. What is the health and nutritional status of pre-school and primary-school children in your community?

5. What immediate steps would you recommend to improve the situation?

Part III

6. What will be your role in the process of addressing these concerns?

7. What support will you need in carrying out this role? Agree also on what support you can provide each other.

Finally, recite a poem.

Activity 5.4

Group Activity

Finish this topic by reciting 'Children Learn what they Live' (condensed version). The lines are provided below. You may also wish to reproduce them for display in your work-place.

Children Learn what they Live

a child who lives with CRITICISM
learns to CONDEMN
a child who lives with HOSTILITY
learns to FIGHT
a child who lives with RIDICULE
learns to be SHY
a child who lives with TOLERANCE
learns to be PATIENT
a child who lives with ENCOURAGEMENT
learns to be CONFIDENT
a child who lives with PRAISE
learns to APPRECIATE
a child who lives with FAIRNESS
learns JUSTICE
a child who lives with SECURITY
learns to have FAITH
a child who lives with APPROVAL
learns SELF-RESPECT
a child who lives with ACCEPTANCE and FRIENDSHIP
learns to find LOVE IN THE WORLD

Readings

Reading 5.1
The Role of Teachers in Times of Catastrophe

Natural and man-made disasters are ever present and can occur at any time. Catastrophes like typhoons, flash-floods, earthquakes, fires, volcanic eruptions, lava flows, explosions, shoot-outs, and attacks in war-torn areas' often happen when least expected. These situations call for preparedness and for pro-active behaviour.

In school, the teacher, as a second parent to the children, plays a crucial role in times of emergency. In difficult situations, teachers must set an example, showing fortitude and courage. They need to remain calm and have the presence of mind which may be essential to ensure the survival of the pupils entrusted to them.

To discharge this responsibility, every teacher should be familiar with the basic measures to observe in disaster control:

❑ Be aware of the plans for the directed movement of occupants of the buildings. This includes knowing whether/when the pupils should move from a designated shelter or evacuation point to the street or elsewhere outside the school building.

❑ Be equipped with basic first-aid knowledge and be able to administer immediate and temporary treatment to injured pupils, including on-the-spot life-saving aid.

❑ Know the location of fire extinguishers and when and how to operate them.

❑ Be able to prevent or constrain damage to utilities in the event of a disaster, i.e. electrical and mechanical controls and conduits; power switches, ventilation, heating and refrigeration devices; and any other similar equipment.

❑ WARNING SIGNS. Ensure that pupils are trained to understand the meaning of different warning signals or alarms and know the correct action to take.

Adapted from: Disaster Manual for Establishments and Institutions, Department of National Defense, Quezon City, Philippines, 1976.

Reading 5.2
Early-childhood Care and Education

The early-childhood years are of crucial importance for the physical, intellectual and emotional development of children. Parents should give due consideration and proper care to the quality of health and nutrition which are believed to have long-term consequences that can seriously affect the learning capacity of a child. A weak child cannot be expected to learn well. Poor nutrition and health conditions, especially during this period of schooling, can aggravate the consequences of early

deprivation. Childrens' capacity for learning is determined in part by their physical development, aptitudes and motivation to learn. Hungry and unhealthy children are more likely to drop out of school than others. Teachers can help by developing strong partnerships with parents and communities. However, developing these partnerships to bring about Education for All is not always easy. Rather than imposing rigid uniformity, 'listen' to the needs of your community, and recognize and take account of the diversity of cultures, languages, customs and resources which make up societies.

The main points at this stage can be summarized as follows:

❑ Education for All presupposes a sound foundation for learning established during early childhood. This foundation can be assured for children in any family and any community, no matter how poor.

❑ Proper early-childhood care and education can improve the equity and effectiveness of subsequent schooling by reducing drop-out rates and enhancing learning-achievement rates.

❑ Parental involvement means consulting parents about what child-care facilities are needed. It should also include education directed towards parents-to-be.

❑ Effective parental involvement in providing early-childhood care can have positive effects on the attitudes of adults towards other development goals.

Reading 5.3
Enhancing the Learning Environment in the Primary School

A deprived learning environment in the primary school is characterized by low enrolment rates, low completion rates and low achievement. Some key areas are:

❑ the curriculum;

❑ learning materials;

❑ instructional time;

❑ classroom teaching;

❑ pupils' learning capacity.

Let us discuss these areas and see how teachers can contribute towards improving them.

Five principal inputs for improving learning
The curriculum

Generally speaking, the official primary-school curricula have many similarities worldwide. However, the actual curriculum in some developing countries is poor in terms of both scope and sequence of subject matter. A recent study of the reading and mathematics curricula in fifteen developing countries found that expectations for pupil achievement in the earliest grades were inappropriately high and that steps from one concept to the next were very large, with few intermediate steps.

Textbooks, which are a major source for curriculum teaching, often suffer from factual inaccuracies, inappropriate illustrations, and poor choice of text, language and script. Also, they lack the material to teach the development of higher-order thinking skills such as problem-solving, critical thinking and reasoning.

Successful curriculum reform efforts have to tackle the more difficult issue of preparing a coherent, appropriately-paced and sequenced teaching programme, and of developing teaching materials that support it.

The overall goal of education is to help every pupil and student to achieve self-fulfilment as a good citizen and productive worker, able also to derive pleasure and profit from the use of leisure time. It calls for the provision of quality learning experiences making use of the following approaches:

1. Since learning is a lifelong process which is necessary for living in a constantly changing society, it is most important for pupils to learn how to learn and develop a zest for learning. In learning how to learn, pupils should be required to spend time studying in the library or learning resource centre. Pupils must learn how to use all kinds of reference tools and sources of information.
2. Pupils should be exposed daily to instruction in the communication skills: reading, writing, speaking, listening, and using non-verbal cues.
3. Pupils should be exposed to a variety of cultural and recreational fields which will develop their competence in the use and enjoyment of leisure-time interests and activities such as art, music, literature, drama, dance and physical education.
4. Pupils should be educationally guided towards career preparation. For all pupils this implies some understanding of the world of work and career fields, and an understanding of one's own abilities, interests and needs as they correspond to certain careers.

Learning materials

These are key ingredients for learning which should organize the presentation of information, provide children with opportunities to apply what they have learned, and – in the case of tests and quizzes – help teachers assess pupils' learning. Learning materials such as textbooks or workbooks with teachers' guides contribute to the effectiveness of the learning environment. It is in the textbooks and workbooks that pupils are motivated to apply what they have learned. Teachers' guides are effective in enhancing pupil achievement when they are well-integrated with the textbook or other instructional materials. They should include information both on what to teach and how to teach it; diagnostic tests to assist teachers in monitoring childrens' learning; guidelines in modifying the lessons based on test results; suggestions for classroom management and practices and activities for classroom use.

There are cases when textbooks and other instructional materials are scarce. What if a teacher is situated in a very remote area where no textbooks or workbooks are available for every pupil? Here is a situation that calls for creativity. Look around – there are some indigenous materials which can be used as teaching aids.

Here are some guidelines for developing your own 'teacher-made' instructional materials, if learning materials are scarce:

1. Identify the abilities of your learners. Find out and analyse their specific knowledge, skills and attitudes to the topic.
2. Consider the objectives. Find out what kind of instructional materials will best carry out the objectives.

3. Use low-cost indigenous materials. A survey and an inventory of the raw materials available in the locality can provide a challenge to ingenuity in coming up with different forms and types of teaching devices. For example, it may be possible to use a flower or vegetable to provide colouring material if commercially produced chalks or paints are not available.

4. When producing teaching aids, identify instructional materials which teachers can produce on their own or together with pupils using local resources. These are often not available commercially because they do not lend themselves to production on a commercially viable scale.

5. Consider cost-effectiveness. Material must be produced as economically as possible in terms of time, effort and money. The production of inexpensive instructional materials frees the school and teachers from overdependence on commercial and profit-oriented suppliers or producers. Careful planning and the use of inexpensive visual materials will contribute to economy in production.

6. A great deal of research, reading, observation, listening and purposeful exposure to new ideas, information and types of instructional materials will generate creative ideas for the production of new materials for instruction. Imaginative thinking and resourcefulness can also provide uses for discarded materials and offer opportunities to improvise replacements or substitutes for equipment not readily available.

7. Consider your own capability to design instructional materials. Start with simple and easy production techniques or procedures. Such simple skills are fundamental in the more difficult production of other materials (see Reading 5.6 for further details and examples of this).

8. Be versatile. The instructional materials can be used in several teaching/learning situations and can cut across subject areas.

9. Strive for durability. Material must be constructed to withstand long usage and repeated handling.

Instructional time

How much children learn in school is directly related to the amount of time available for teaching. While learning time is valuable for all pupils, it is especially important for poor and underprivileged pupils whose time and opportunities for learning are likely to be strictly limited. This means that teachers should be punctual and avoid absences whenever possible. One way to increase effective learning time is to reduce class size. Small classes are often considered indicators of educational quality, as their main effect is to increase individual pupil/teacher contact time. However, this is a costly strategy since it requires more teachers and more classrooms.

A more promising and more effective strategy for increasing learning time is to set and maintain standards for instructional time. Maintaining such standards requires administrative measures and/or parental interventions to ensure that schools are open during official hours and that teachers are present and teaching during the official instructional periods. Temporary distractions should be avoided, and appropriate arrangements made for continuing instruction during abnormal weather conditions (e.g. during the rainy season) which are common reasons for absenteeism of teachers as well as of pupils.

Classroom teaching

The quality of teaching plays a critical role in pupils' achievement. Effective teaching strategies may differ by subject and by age.

In general, good-quality teaching can be characterized by practices which are not heavily dependent on a teacher's lectures but provide opportunities for pupils' questions and participation. A teacher should not encourage children to learn by

rote but should have a well-thought-out approach to the use of instructional materials coupled with ongoing monitoring and assessment of learning through classroom tests.

Pupils' learning capacity

The ability of children to learn is partly determined by their health and nutritional status and also by their prior learning. There is ample evidence to show that pre-school nutritional and stimulus deprivations are associated with deficits in cognitive development. In school, feeding and health programmes can lead to improved cognitive performance, and pre-school educational programmes can compensate for learning deprivations in the home and environment. Teachers have a role to encourage their pupils to always eat healthy and nutritional foods. Above all, they can personally do much to influence the classroom environment and create and promote an atmosphere conducive to learning in the school.

Adapted from: Lloyd W. Dull and Charles E. Merill. *Supervision: School Leadership Handbook,* Merrill Publishing Co., Columbus, Ohio, A. Bell and Howell Co., 1981, p. 180.
EFA Monograph II.

Reading 5.4
Improving the Learning Environment for Youth and Adult Learners

The importance of non-formal education, in the context of Education for All, lies in its contribution (in co-operation with schools) in meeting the basic learning needs of particular target groups. Many factors may impair the learning environment for such groups. One example is the difficulty of scheduling such activities to fit in with competing interests and duties. Problems of this kind are particularly acute for women in rural areas. In some cases, classes are organized as a function of the agricultural calendar and are accompanied by practical, productive activities.

In designing courses for youth and adult learners, the programme designer should start where people are. Acquiring knowledge should not be presented as something new but as an ongoing activity with which the community already has experience. Familiar learning experiences should be highlighted and the existing learning environment made more visible and real to everyone. Efforts should be made to widen local horizons so that people can see how others with similar problems and needs are learning and changing their lives. Participation in the design of courses can also encourage them to feel committed to programmes that they themselves have helped to shape.

There are cultural expectations about what it means to learn and what constitutes learning material. The indigenous pedagogy of learning by doing and experience found in most countries may often constitute the most appropriate approach. Learners often want to fit into a formal learning setting such as a school. Traditional institutions such as Koranic schools, Christian churches and Buddhist temples, as well as secular institutions such as community centres, clinics and co-operatives, may all be used for non-formal education.

Teachers of youth and adults, including literacy workers, should be regarded, and indeed see themselves, as facilitators rather than instructors. They should be trained to recognize activities peculiar to the cultural traditions of the country and local society. In this way, they can help, in partnership with the learners' to create an enriched learning environment in which they can examine, renew and create new cultural syntheses.

Reading 5.5
The Role of Health and Nutrition in Enhancing the Environment for Learning

Hunger interferes with a child's concentration and problem-solving abilities. Undernourished children who come to school hungry are, in general, less able to learn than those who are adequately nourished. Food aid should address the problem of short-term hunger as well as the more general problem of malnutrition. Studies conducted in classroom settings have suggested that immediate improvements may occur in childrens' behaviour following the provision of food or drink. A school breakfast programme in Jamaica that targeted undernourished school children with low levels of school attendance and achievement had a significantly positive effect on arithmetic scores and attendance (Pollitt, 1990). School meals strengthen the motivation of parents to send their children to school; this applies particularly to the poor and to families who live far from school.

In one study (Florencio, 1987), school principals, pupils and teachers were asked about the most common reasons for absenteeism; parents were asked what improvements were necessary for better scholastic performance. Poor health was a major reason cited for absenteeism by all groups, while some parents identified improved health as necessary for better scholastic performance.

There are over 1,000 million school-age children in the world today. The world's education systems could influence the health of millions of children in their most formative years. Schooling thus presents a great opportunity for disseminating health knowledge, developing appropriate values and attitudes, and encouraging healthy behaviour patterns. A school health programme generally should include: regular immunization, regular school feeding (if necessary), nutrition education as part of the curriculum, in-service training for all teachers in health and nutrition, and a school health service that also takes care of health aspects of the school environment.

The health-promoting school is increasingly being used as a unifying concept for the many aspects of health education. There is a growing recognition that health education does not end with schooling, but that its effect and influence on pupils are greatly intensified by the supportive network of school, home and community. In its simplest sense, the health-promoting school is a force for the dynamic interaction of three strands – the classroom, the school community and the local environment. Children learn more from example and from good role models than from textbooks (see also Reading 11.3, The Health-promoting School).

Teachers have an important role to play in helping to detect physical and mental disabilities when children first enter school. Children suffering even from mild deafness, dyslexia, malnutrition and various deficiency diseases have impaired learning capacity. Early detection followed by remedial treatment can make all the difference to educational achievement. In some developing countries, for example Bolivia, efforts are being made to encourage teachers to become health promoters for the whole community and society. These countries may not have enough doctors, but teachers are to be found everywhere, even in remote rural areas (see also Topic 2, Module 2).

Source: EFA Monograph I.

Reading 5.6
Principles in Designing a Teaching Aid

When planning teaching materials, particularly graphic materials, consideration should be given to the following elements of design:

Arrangement

The visual and verbal elements of the design should be arranged in a pattern or layout that captures the viewer's attention and directs it towards the relevant details.

(a) _Emphasis_ – Not all parts of the arrangement can be equal in importance. Decide which parts are the most important and emphasize them.

(b) _Harmony_ – Do all parts go together? Does the lettering fit the subject of the visual presentation?

The manipulation of line, space and mass is the designer's primary instrument. First, the elements should hang together in a unified whole. Giving the design a recognizable overall shape assists in achieving this end. The arrangement of these elements of layout which are easily recognized are illustrated on page 13:

Balance

The chosen shape or pattern which provides emphasis to the teaching aid should also occupy the space of the design in a way that connotes a sense of balance or equilibrium without being totally symmetrical. Formal balance tends to be static but an informal balance contributes to a feeling of dynamism or movement. Most striking layouts produce eye-catching movement through asymmetrical or informal balance with large silent areas (white space) to emphasize the graphic elements.

Colour

Several functions may be served by the colours selected for use in a teaching aid:

❑   to heighten the realism of the image by depicting its actual colours;

❑   to point out similarities and differences;

❑   to highlight the important cues for emphasis like contrasting light colours with dark colours, and vice versa, so that the parts are clearly visible.

Blue, green and violet are perceived as 'cool' while red and orange are 'hot' . The warmer colours appear to be approaching the viewer; the cooler colours seem to be receding. Capitalize on this tendency by highlighting important cues in red and orange, helping to attract the viewer's attention.

The designer needs to decide whether some emotional connotation will help advance the intended message. Are some action-oriented objectives being consciously aimed at? What mood should be associated with the idea? Can the sensory appeal of the message be improved with a judicious choice of colour? Harmony is lost if too many colours are used in the same display, so is emphasis. One way to avoid overcomplexity in a colour scheme is to choose analogous colours – colours that are next to each other on the colour wheel, such as violet, red and red-orange.
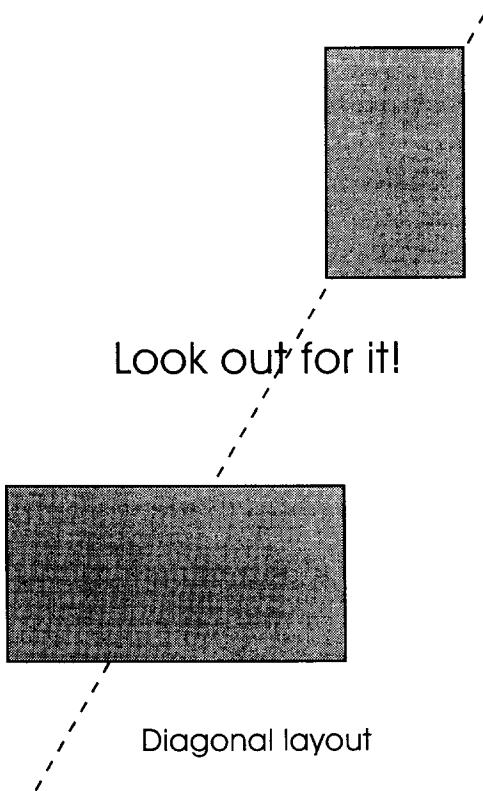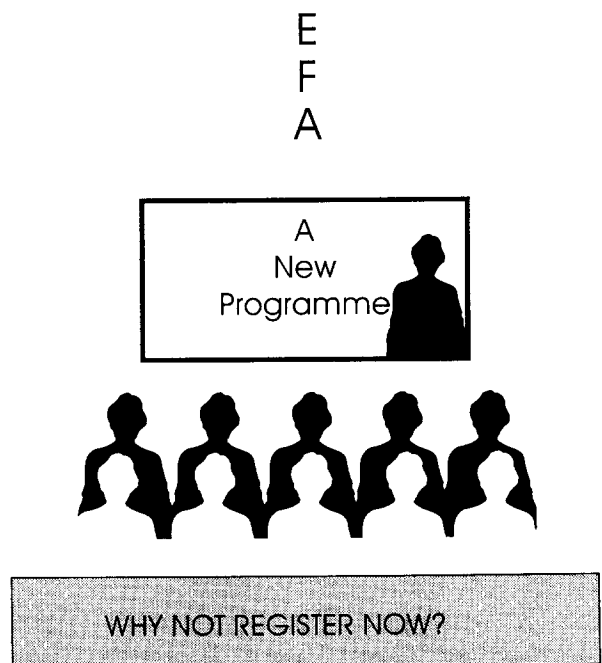
Tee . . . Off

L layout

Circle layout

Look out for it!

Diagonal layout

E
F
A

A
New
Programme

WHY NOT REGISTER NOW?

Triangular layout

The colour combinations which give the highest visibility are in the following order: (1) black on yellow, (2) green on white, (3) red on white, (4) blue on white, (5) white on blue, (6) black on white, (7) yellow on black, (8) white on red, (9) white on green, (10) white on black, (11) red on yellow, (12) red on green. Black on white tends to be thought of as having the highest visibility, but this is not so. Teachers who have to plan and make up educational materials must consider the theories of colour which are based on lights and pigment as well as the viewing location and the effect of the materials on the viewing location and the users.

Lettering educational materials

Lettering on visual materials can make or break the visual presentation. Therefore, teachers should develop skills in lettering techniques. Lettering brushes, speedball pens, ink, crayons, coloured pencils and lettering manuals/instructions will prove helpful. Tracing or cutting out suitable letters from newspapers and from magazine advertisements give good effects. Letter stencils in a variety of sizes and styles on cardboard or plastic sheets will serve many purposes and for a good number of times. Prefabricated letters or rub-on lettering sheets offer an easy, but expensive, solution to a number of lettering problems. Some resourceful teachers and pupils have found they could meet their lettering needs with the use of seeds, coloured strings or twine, cut-outs from coloured paper or magazine pages and coloured cloth scraps.

The titling of any visual material is of primary importance. Titles should always be:

Brief — usually two lines, but a single line is preferable.

Accurate — saying no more and no less than intended.

Arresting — the emotional impact of visual material can be heightened by the use of appealing word symbols to reinforce the message.

Legible — the spacing between letters, their thickness or thinness, spacing between lines or words and the arrangement of the parts give the total effect of attractiveness and sharp appearance of the whole message. Legibility also depends on colour and the size of letters.

For standard poster size of 22" x 28" (56 cm x 70 cm), letters 1½" (4 cm) high are legible at some distance, 1" (2.5 cm) letters are suitable for posters at closer viewing, but 2" (5 cm) letters are more impressive if the message is brief enough or the poster is oversized. Graphic materials on standard 8½" x 11" (or A4 – 21 cm x 29.7 cm) sheets of paper need titles at least 1½" (4 cm) high. Subtitles can be smaller and legends smaller still.

All graphic material must be properly titled; objects, specimens, models and other three-dimensional materials must be labelled to add meaning to their visual impact.

Criteria for evaluating an effective teaching aid

1. _Clarity is the key_. The central idea must be simple, direct and accurate. It must be legible in terms of layout, size, contrast and colour.

2. _It is compelling_. It must attract attention, spark the learners' reaction and promote thinking. Its message must stick; its colour, symbolism, phraseology and overall form contribute to the lasting impression on the learners.

3. *It is easy to use.* It must be simple and easy for the learners to handle, manipulate and understand.

4. *It is appropriate.* The aid must reflect its purpose and its form should be closely tied to its content. Its form should also be appropriate to the experience and age-level of the users.

5. *It is worth what it costs.* It must be produced as economically as possible in terms of time, effort and money. It must produce the desired results. Careful planning and the use of inexpensive materials contribute to economy in the production of teaching aids.

6. *It must be directly related* to the instructional objective and the subject matter.

7. *It should be versatile.* The teaching aid can be used in several teaching/learning situations and can cut across subject areas.

8. *Utilize low-cost indigenous materials* available in the region.

9. *It should be durable.* It must be constructed in such a way that it can withstand long usage and repeated handling.

See also pages 16 and 17.

Sources:
Heinich, Molenda and Russel, *Instructional Media and The New Technologies of Instruction*, New York, John Wiley & Sons, 1982.

Edgar, Dale, *Audiovisual Methods in Teaching*, Eastbourne, UK, The Dryden Press, Holt, Rinehart & Winston, 1969.

Carlton. W.H. Erickson, *Fundamentals of Teaching with Audiovisual Technology*, New York, Macmillan Publishing Company, 1965.

Instructional Technology, Issues and Concerns, 20th Annual Summary Reports, Lake Okoboji, Educational Media Leadership Conference, 1974.

LIST OF INDIGENOUS MATERIALS AND THEIR USES

Materials	Applications

Freely available materials
 	
 A. Local environment
 	
 Plants
 	
 bamboo
 seeds and fruits
 weeds and grass
 leaves, flowers, roots and stems,
     tree bark
 rice husks
 coconut parts:
     husks, shells, sheets
 natural fibres
 rattan cane
 cotton
	counting frames, abacus
	 mats, display boards
	 holders
	 lettering instruments
	 containers
	 musical instruments
	 figurines, models, masks
	 toys and games
	 simple science apparatus,
	     scales, balances, counters
	 specimens
	 diorama
	 stuffing for toys and
	     puppets
	 aquarium
	 terrarium

Animals
 	
 shells, corals
 insects
 small animals:
     frogs, fishes, rabbits
 animal parts:
     hair, skin, horn, teeth,
     skeleton
	specimens
	 figurines and models
	 toys and games
	 counting aids
	 lettering and colouring
	 brushes
	 mobiles and displays
	 musical instruments
	 weather measuring
	 instruments:
	     humidity indicator,
	     wind vane
	 aquarium
	 terrarium

Materials	Applications
Minerals	counting aids
	specimens and objects
stones and pebbles	models
clay	chemicals for laboratory
sand, soil	experiments
limestone	moulds for papier mâché
salt	toys and games
oil and its by-products	sand tray presentation
gas	sand paper
iron filings	aquarium
tin	terrarium
B. Waste materials	
(scrap, discards)	
industrial waste	laboratory activities
empty containers	figurines, models, dolls,
scrap wood	puppets, masks
packing materials,	counting/measuring devices
foam, polystyrene,	games and toys
vinyl, polythene foil	electric bell
cloth scraps	electric meter
used wires/cables	funnels
paper/glass/plastic cups	coil bobbins
used electric wire	spring balance
posters/advertisements	simple motor
discarded stationery	simple boat
discarded parts from simple	weather measuring
machines	instruments:
broken springs	rain gauge,
sawdust	wind vane
newspapers, magazines	expansion apparatus
	spirit lamp
	battery holders
	simple switches
	test tubes
	burettes
	posters, flash cards,
	picture sheets,
	work cards, cut-outs
	audio distribution system
	relief maps
	papier mâché products

Strengthening Partnerships

UNESCO/H. Fehl

TOPIC *6*

CONTENTS

Strengthening Partnerships

Introduction

Topic 6 considers the multisectoral nature and scope of education. It aims to reach a better understanding of how various sectors engaged in the educational process can consider what new and revitalized partnerships are necessary to promote the task of meeting the basic learning needs of children and adult learners.

Learning Outcomes

By the end of this topic you will have:

❑ reached a better understanding of the process of building partnerships and the elements basic to a partnership;

❑ explored the place which should be taken by strengthening partnerships in the expanded vision of Education for All;

❑ considered what new and revitalized partnerships are necessary to promote the task of meeting basic learning needs;

❑ reached a better understanding of how the various parties engaged in the educational process – government authorities, non-governmental organizations, teachers, parents and learners – can become true partners in it;

❑ reviewed the role that can be played by 'external partners' such as aid agencies of various kinds, in promoting Education for All.

Content

Building a Partnership

A partnership is both a _process_ and a _state_ or _condition_. A collection of individuals becomes a partnership only after going through some fairly definable processes; likewise, a sense of partnership refers to a social condition or state. Members of a group feel bound to each other through their shared goals, aspirations, shared norms of conduct, commonly accepted structures and roles, and a shared sense of togetherness – a group spirit.

Education for All – A Partnership Endeavour

Now that you have a general idea of what is involved in a partnership, let us relate the concept to Education for All:

By its very nature and scope, basic education is multisectoral, cutting across the competencies of a number of different government agencies as well as non-governmental bodies.

The important role of non-governmental organizations, communities, parents and learners is now more evident because of the broad redefinition of basic education which incorporates child development activities that have been ignored or underemphasized. Basic education must be planned in terms of the concurrent conditions that determine the child's learning capacity and effectiveness. Health, nutrition, and physical and intellectual stimulation condition the child's capacity to benefit from learning opportunities.

Individuals or organizations involved in meeting the basic learning needs of children and of adult learners must enter into a genuine partnership, one that contributes to planning, implementing, managing and evaluating basic education programmes. There are many aspects of the notion and practice of partnership that need to be explored here.

Comment

Now analyse your diagram, checking it for the following:

❑ Are partnerships at the governmental level strongly indicated?

❑ Are partnerships evident within the community – between the school and the local community and within the school itself as a learning community?

❑ Are non-governmental organizations included?

❑ Did you include the home and community?

For further understanding of the relationships/partnerships among the different sectors, refer to Reading 6.3, EFA – A Partnership Endeavour (page 9). Then proceed to Activity 6.3.

Activities 6.3 and 6.4 are twin exercises involving individual and group work which will allow you to see how partnerships can work in solving problems education institutions may have to face (or may already be encountering) in their efforts to achieve Education for All.

Activity 6.3

Individual Activity

1. Five areas of problems/concerns, with examples, are listed below. You will also find a listing of six sectors. For *each* problem/concern identify which of the sectors can help in solving it. Then, using the format below, write down the specific roles of each of these sectors.

Problems/Concerns

❑ Parental Support (e.g. insufficient co-operation and commitment in supporting school concerns, especially in terms of preventing their children from dropping out of school, and disciplining their children);

❑ Teachers' Welfare (e.g. teachers are unhappy about their remuneration since teachers' salaries are not commensurate with the demands made by their work; teachers' schedules are overloaded with non-teaching activities);

❑ Instructional Materials and School Facilities (e.g. teachers lack materials for teaching; the school buildings are run down);

❑ Pupil Performance (e.g. students drop out of school due to poverty, poor health and nutrition, lack of school supplies and materials and irregular attendance);

❑ School Management and Administration (e.g. strait-jacket policy and traditional concept of education which is equated with schooling, when the environment outside the school can be a learning resource ensuring Education for All; no alternative learning systems)

Sectors

(a) Non-governmental organization

(b) People's organization

(c) Government agencies (specify which ministry/department)

(d) Local community (specify whether school, families, religious group, etc.)

(e) Media

(f) Private sector

Problems/Concerns	Sector(s)	Role(s)
Parental Support:		
Teachers' Welfare:		
Instructional Materials and School Facilities:		
Pupil Performance:		
School Management and Administration:		

NOTE: Do *not* proceed to Activity 6.4 until you have finished this activity.

Activity 6.4

Education for All – A Partnership Endeavour

Group Activity

Form five groups. Each group should tackle one of the problems/concerns identified in the previous activity.

Take 20 minutes to discuss the specific problem/concern assigned to your group. Cover the following:

❑ Most likely cause(s) of the problem/concern;

❑ Possible solution(s)/strategy(ies);

❑ Person(s) responsible (distinguish between primary and secondary responsibility).

After the discussions, one member of each group should summarize and report back to the group as a whole.

When all the presentations have been made, discuss the following:

❑ How did you feel, during the discussion of the problem(s)/ concern(s) chosen for your group, about the roles of the different sectors?

❑ How did you arrive at a solution?

❑ How would collaboration or partnership with the different sectors of society contribute to a strategy for the efficient and effective realization of the goals and objectives of Education for All?

Comment

In order to be successful in meeting basic learning needs through Education for All, there is a need to strengthen partnership among several sectors. Below is a diagram showing how EFA partnership is envisaged:

EFA Partnership Diagram
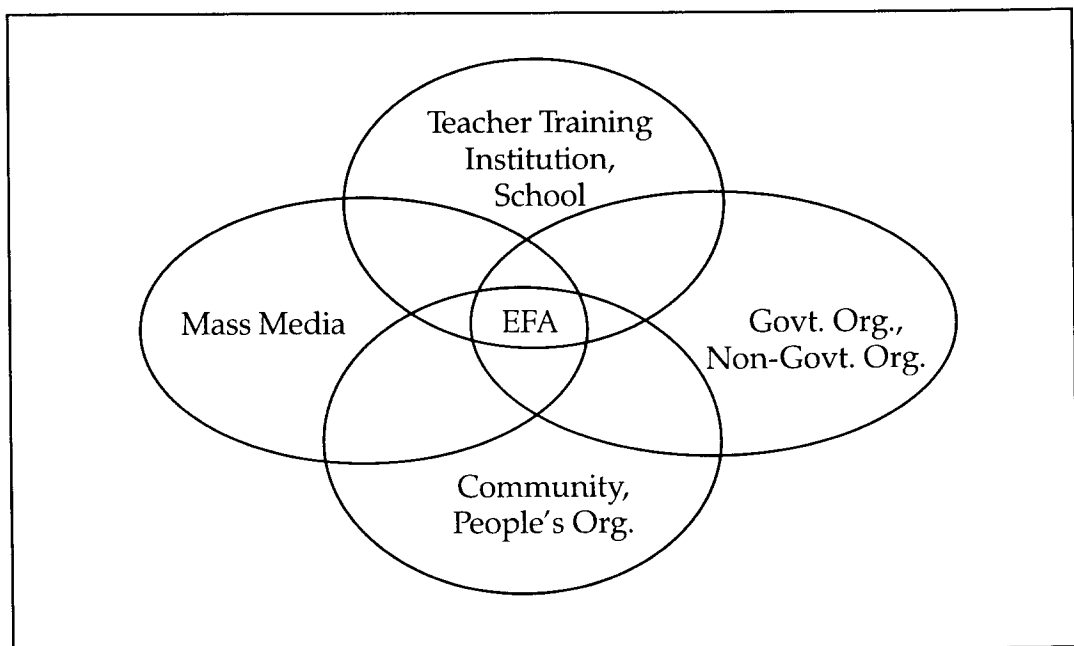
Refer also to Reading 6.4 (page 12) on the importance of strengthening partnerships with the mass media.

External Partners

Our principal concern in this topic is partnerships among local organizations. However, partnership may also include external partners active in the country or state. Among them are the UN agencies, other intergovernmental agencies, multilateral development banks, bilateral development bodies, international non-governmental organizations and foundations. It has been observed, however, that the various ways in which they operate, exchanging information and experience, sharing personnel and facilities, providing technical assistance and policy advice, and providing grants and loans, are not always as well integrated into overall national action as they might be. It is particularly important for their input to be harmonized with intersectoral partnerships being developed to move towards the full achievement of basic education for all.

Activity 6.5

Private Sector Partnerships

It is important for the private sector (business and commerce, industry and agriculture) to participate in national efforts to achieve EFA objectives.

Partnership in your specific community is the focus of this activity, with some emphasis on how the private sector can co-operate.

Individual Activity

Reflect on the following questions and write down your conclusions.

1. Does the concept of partnership play a significant role in educational development in your community in particular, and in your country in general?

2. What partnerships are specially evident within the schools, among teachers, and between the schools and the local community? In what ways might they be strengthened?

3. What initiatives can you take in order to strengthen existing partnerships and forge an initial partnership with relevant agencies/institutions?

4. In what ways can the business and commercial community help to make EFA partnerships work and succeed?

Then do the group work with your colleagues.

Group Activity

Join a group of colleagues and discuss how you can mobilize business and commercial bodies and community associations to help make EFA PARTNERSHIP work and succeed in your own community. Keep a written record of the highlights of your discussion.

Summary

Partnership between and among teachers, parents, community, learners, government and non-governmental organizations is central to implementing successful, sustainable education programmes for children and adult learners. The role of non-governmental organizations as partners with governments and with communities, parents and learners offers a significant new opportunity for meeting the challenges of Education for All. In fact, in most parts of the world, the Parent-Teacher Association (PTA) is a regular organization set up in the different schools to show the importance of maintaining a strong partnership between parents and teachers. Go through Reading 6.5, Establishing Parent-Teacher Relationships (page 13).

Moreover, to illustrate a clear example of a mechanism that can further strengthen the partnership between the schools and the community, the experience of the School and Community Outreach Programme for Education (SCOPE) of Jamaica is presented in Reading 6.6. You are encouraged to identify some significant insights from this experience and consider their practical application to your own situation.

Readings

Reading 6.1
Processes in Partnership Building

A social grouping becomes a partnership as a result of certain partnership-building processes evolved throughout the group's life. There are at least five important processes that must take place for a community to grow:

1. *Individual participation and involvement*

   Partners have to get involved in the major task of the group and engage in some form of meaningful participation so that they can really identify with the partnership as such, and feel that they have a stake in its success.

2. *Effective communication*

   Channels of communication must be kept open within the partnership so that ideas can be shared and work-related feelings can be expressed in an atmosphere of freedom and trust.

3. *Collaboration*

   To collaborate does *not* mean:

   ❑ undermining the ideas, contributions and feelings of members, especially those who are less assertive;

   ❑ 'the majority rules, the minority follows';

   ❑ avoiding disagreement for the sake of preserving smooth interpersonal relationships;

   ❑ 'I plan, you implement, the others can do anything';

   ❑ engaging in a contest for individual contributions.

4. *Management of conflict/differences*

   Conflict arises from the inherent differences among people, differences which are expressed in the way partnership goals are perceived, understood, valued – differences even in attitudes towards conflict. These differences, in fact, are what make partnership life so interesting and full of challenge; as a partnership learns to manage the conflicts/differences that inevitably emerge at different points in its life, the partnership grows stronger, more confident and more productive. One of the most important considerations for effectively managing conflict is learning to see it as a natural and positive force in the partnership; conflict, if properly managed/resolved, often releases a lot of productive energy for accomplishing partnership tasks, e.g. consensual decisions, which are the results of working through conflicting ideas, are generally better decisions.

5. _Management of change_

Change is said to be the only thing which is constant and predictable. If this is so, a community needs to be ready to face and manage change effectively. Like conflict, change needs to be seen as a positive process; a process which creates new alternatives and opportunities for the partnership to try new and potentially better ways of doing things.

Reading 6.2
Elements of a Partnership

These elements are:

1. _Goals._ These are the objectives that members of the partnership want to attain which are responsive either to their individual or collective needs.

2. _Norms/standards._ These are rules set by the members to govern interaction and relationships among themselves, as well as with other people outside the partnership.

3. _Structures._ These are used to differentiate roles and functions of group members; they often facilitate the division and distribution of work among m. mbers.

4. _Group spirit,_ 'esprit de corps'. This is indicative of the overall morale, partnership spirit and sense of belonging among the partnership members. The crucial factors which influence group spirit are:

   ❑   the social climate of partnership;

   ❑   openness to share ideas, give and receive feedback from each other; and

   ❑   availability of opportunities for growth of members.

Reading 6.3
EFA – A Partnership Endeavour

Partnerships at the governmental level. Within the context of existing education and general national development plans and strategies, a plan of action for basic education for all must necessarily be multisectoral. The plan should contain guidelines and guiding activities for the various government agencies that will be involved – education, information, communication/media, labour, environment, industry, agriculture, health. The sectoral policies and plans must be harmonized so that the sectors interact in partnership and in a mutually supportive and beneficial manner in keeping with the country's overall national development goals. Legislative and other measures may be needed in order to promote and facilitate co-operation between the various partners and to create effective consultative mechanisms.

Partnerships evident within the community. Maximum use should be made of opportunities to build new alliances between government and non-governmental organizations, the private sector, local communities, religious groups and families. Partnerships must be encouraged at the community level and also preferably at the national level to facilitate communication, consultation and co-operation. They can also be of help in harmonizing activities, making more effective use of resources and in mobilizing additional resources where these are needed. Official and voluntary channels can be used to build public awareness and commitment to the goals of Education for All. This is obviously an area in which the mass media can play a particularly important role. Public participation at all levels in developing education

policy has always had positive results. Partnerships within the school itself are particularly important in building up a learning community. The underlying concept is the learning society, in which formal and non-formal learning opportunities for children, youth and adults are broadened outside as well as within the school.

The learners themselves. The learners benefit when they are treated as partners in the learning process rather than simply as 'inputs and beneficiaries'. Family resources, including time and mutual support, are vital for the success of basic education activities. Families can be offered incentives and assistance to ensure that their resources, no matter how modest, are invested so as to enable every family member to benefit as fully as possible from basic education opportunities.

The teachers. Partnerships, particularly at the local level, need to recognize the pre-eminent role of teachers and other educational personnel in providing quality basic education. Teachers' professional associations can work with national and local education authorities to promote curriculum development and to elaborate innovative teaching materials and methods. The role of teachers can be enhanced through measures to improve their working conditions and status, notably with regard to their recruitment, training, remuneration and career development prospects, as well as through measures safeguarding their trade and labour union rights and professional freedoms.

The school personnel have a responsibility to promote co-operative relationships with teachers in all matters pertaining to improving the institutional programme. In this co-operative role, teachers as well as supervisory leaders are expected to plan, suggest, evolve and introduce practices and procedures which will improve the institutional offerings of the school. Teachers who have an opportunity to participate regularly and actively in a co-operative manner with supervisory leaders on curricular improvements are more likely to be enthusiastic and supportive of their school systems than those who report limited opportunity to participate.

The role of non-governmental organizations. At a time when developing countries face critical budget limitations and the level of funds for education is stable or declining, non-governmental organizations can make a critical contribution by promoting the mobilization of resources for literacy and basic education and for the life-long education of all adults.

Non-governmental organizations, because of their closeness to communities and individuals, can often promote literacy and education initiatives more effectively than public or private agencies. Not constrained by formal procedures, they have the freedom to adapt, experiment and respond with flexibility to the needs of particular situations. These are assets which can offer them significant advantages in the field of educational development, implementation and evaluation. They may be small in terms of staff and budget, but not in terms of the number of lives they touch and the profound changes they can make in those lives. Non-governmental organizations cannot work miracles – they do require financial assistance – but the effective way in which they can use the resources they have to bring about social improvement can be of the greatest value.

The place of the home/community. Once children are in school, the conditions affecting their health, nutrition, physical and intellectual stimulation continue to exert strong influences on pupil participation and learning. Primary schooling cannot meet basic learning needs if children are allowed to remain undernourished and in poor health, and left to stagnate in an environment that discourages curiosity and enquiry. If basic education programmes are to be successful, parents and

communities must be actively involved. A school's social, cultural and economic environment determines the capacity of the pupils, their parents and the community to provide and participate in learning experiences sufficient to meet the basic learning needs of the pupils.

The adults of the community must appreciate the value of education for themselves and their children. They must be convinced of their own ability to affect their children's intellectual and social development. Community improvement programmes need to inform people about child-development concerns and how to deal with them.

People in the community, even those without young children, should be made aware of the social benefits of education and the cost of its neglect. The community must learn to see education as a right that is also an investment in the future, not a luxury that only advantaged families can enjoy. Social mobilization depends on a sound understanding of the educational process, its cost and its benefits.

The school needs to appreciate fully the importance of being related to the workaday world of the community. Its students will eventually become the community. The students should study its history, geography, government, sociology, resources, problems and future. The community should serve as a living laboratory for learning.

The school can start the task of making use of the community as a learning laboratory by locating, classifying and cataloguing its resources that are valuable for teaching and learning. School people should make use of students and community leaders in helping them with this cataloguing task. This procedure makes school people, students, and community members aware of the values and use of these resources in the activity of the school.

In identifying community resources, school personnel should first decide which areas of the life of the community to catalogue. These might include:

- ❑ Business
- ❑ Industry
- ❑ Farms
- ❑ History
- ❑ Geography
- ❑ Education
- ❑ Communication
- ❑ Transportation
- ❑ Homes
- ❑ Recreation
- ❑ Government
- ❑ Religion
- ❑ Health
- ❑ Safety
- ❑ Welfare
- ❑ Finance.

Community resources can support the teaching/learning process in many ways, some of which are the following:

- ❏ Encourage learning by enquiry and discovery.

- ❏ Become a bridge between the work of the school and of the world outside.

- ❏ Provide opportunities for career orientation and exploration.

- ❏ Strengthen motivation for learning.

- ❏ Build respect for people in the community and for their work.

- ❏ Extend the range of learning experiences.

- ❏ Provide variety in learning.

Adapted from: Lloyd W. Dull, and Charles E. Merill. *Supervision: School Leadership Handbook,* Columbus, Ohio, Merill Publishing Co., A. Bell and Howell Co., 1981, pp. 407–14.
EFA Monograph II.

Reading 6.4
Mass Media Partnerships

The mass media should be utilized to the full in working towards the goals of Education for All. Outreach based on partnership with the press (newspapers and magazines) and with radio, television and the cinema can be of value.

The mass media represent an economical and effective means of communication with mass audience or the general public. In other words, they provide an easy means of bringing ideas and information to the public.

It is important also to take account of the changing impact of communication and information technology on the poor. Poor communities are more and more subject to penetration by the mass media. This, together with the spread of modern communication technology, means that the poor now have access to more information and the means to make greater use of it. For example, telephones, radio, television, computers and satellite dishes have reached into every corner of Latin America. Even though the hardware reaches rich corners more quickly and pervasively than poor corners, it is stretching towards the poor – not so much to individuals, but to the many interconnected social, political and organizational networks. As a result, the poor are increasingly connected by a common information flow – shared language, news, knowledge, ideas, ideology, imagery and symbols.

Development efforts are constrained by belief in the myth that education is delivered only through schools and teachers, health through hospitals and doctors, and so on. Today, communication technology offers extraordinary speed in the transmission of images and messages at costs dramatically lower than were available only a decade ago. The unresolved question is how the power of the communication media can be captured to strengthen political will and to mobilize society to support and participate in meeting the basic learning needs of all.

Political commitment to Education for All must transcend official rhetoric and political pronouncements. Political will can be measured only by the actual substance of education and the related policies, management priorities and resource

allocations. To be effective, the political commitment within government must be founded on a broad social commitment among the population. Communication systems, both formal and informal, will play a major part in establishing this commitment, and in nurturing and sustaining it. Documenting educational benefits and making positive informal references to the advantages of education in entertainment and literature are two diverse examples of the contribution communication media can make in reinforcing social and political will.

Reading 6.5
Establishing Parent-Teacher Relationships

It is of utmost importance that parents know about their children's conditions in school, their performance and activities. Often, much of the lukewarm attitude of parents or their lack of support for the school programme is based on what their children say. In fact, the teacher is the natural person to inform parents about their children's attitudes. Teachers can speak from first-hand knowledge of the children's learning, of their relationships with other children, and of the progress they are making in their work.

It is also natural for parents to approach the teacher for information about their child's performance in the class as well as what goes on in the school surroundings that affect the child. It is, therefore, the teacher's primary responsibility to establish and maintain an open communication link and a harmonious relationship with the child's parents. To do this, he/she should be able to interpret the child's work to the parents and, eventually, help them understand their child's life in school.

Because the teacher also plays the role of a part-time parent, there is a need for co-operative planning of the school/home relationship. The attitudes of parents toward their children are of extreme importance in this connection. Some parents resent what they call 'interference' by the school in the way they bring up their children. They may resolutely decline to co-operate with the school because this might weaken their authority as parents. On the other hand, some parents assume that the school should be left alone and allowed to run in its own way; if they need help they will call for it. What then is the school to do? There is no single formula that a school can follow in working with parents and children in sensing problems, mediating differences, and proposing programmes that will achieve the desired result.

Source: Teachers Responsibility in Involving Parents in Child Education, Learning Action Cell (LAC) Teachers Manual – Non-formal Training Program (Project for the Development of Primary Education, Development Academy of the Philippines).

Reading 6.6
The School and Community Outreach Programme for Education (SCOPE) of Jamaica

This programme is a coming together of schools and community-based organizations to foster the overall development of the school and to forge school/community links. It forms part of the Primary Education Assistance Project (PEAP), a USAID/Government of Jamaica funded project which operated from 1986 to 1990.

Objective

The objective of the PEAP project was to improve the quality and efficiency of Jamaica's primary education. The focus was on key constraints that were amenable to rapid change within the framework of scarce USAID and Government of Jamaica

resources and the limited time available for their accomplishment. The activities that were planned were expected to complement the long-term programmes of other international donors and build upon previous projects in primary education.

The project comprised three components, namely:

1. Renovation of school
2. Community participation
3. Instructional materials.

The _renovation component_ aimed at refurbishing 150 primary and all-age schools in an effort to provide an appropriate learning environment for 67,000 primary-school pupils and members of staff.

The _community participation component_ dealt with the development of local initiatives to secure greater community responsibility for maintenance, security and operation of primary and all-age schools within the communities themselves. Several of the schools that were scheduled for repairs suffered from vandalism and the community-training component was brought into being in an attempt to underpin the efforts being made to repair the physical structures. It was agreed that community training and community involvement in school activities and participation in programmes and projects designed to improve the learning environment would improve school/community relationships and reduce or remove the incidence of vandalism.

It was against this background that special training was given, both in Jamaica and overseas, to education officers, local school board representatives, school staff representatives, school principals and representatives of local community organizations in various techniques and approaches to be employed in the eradication of vandalism and the building of better school/community relationships.

The _instructional materials component_ aimed at evaluating the then existing programme of primary-textbook production which was largely funded by some private sector firms, foreign funding agencies and the Government of Jamaica. The evaluation team was also commissioned to recommend a permanent system for financing, developing and distributing inexpensive textbooks to primary schools and the primary grades of all-age schools. The second segment dealt with the provision of kits of supplementary instructional materials for teachers in all primary schools. Approximately 8,000 kits (containing maps, dictionaries, rulers, compasses, protractors and other aids) would provide valuable teaching tools for teachers to use in conjunction with the new textbooks and teachers' guides.

To date, the programme is operating in all parishes.

School/Community Repair Programme under SCOPE

On its return from overseas training the first group of trainees became aware of the fact that there was little left to care for at some schools as serious vandalism had occurred. It was at this stage that the Ministry of Education, USAID and Southern University, Louisiana, USA, pooled ideas and came up with the SCOPE Repair Programme for such schools, with a strong community ingredient.

Ten schools were given permission to effect repairs to their schools, having previously named their special committees and having secured strong community commitment to the programme. $50,000 were provided as a first instalment and $60,000 as the second instalment to each of the schools.

A building officer supervised the work done at each school and provided technical assistance. The full cost was borne by USAID, and the programme, on the whole, was very successful. There were a few problems that had to be resolved as the programme progressed.

Results

All ten schools were repaired and satisfactory work was done with outstanding community support and involvement. The programme generated much community interest in the ten schools and served to forge stronger links of understanding between school and community. Vandalism ceased in most of the schools and was reduced to minor incidents in the others.

Observation

The model used was new to these schools and communities and, in four cases, disharmony and dissatisfaction emerged among some members of the Schools Building Committee. These cases warranted quick action on the part of the co-ordinator and officers.

The following techniques were used to resolve these issues:

❏ dialogue with group and hammering-out of the issue, with the opportunity for free and frank discussion;

❏ checks on accounts, rate of progress, etc.;

❏ setting of goals, conditions, etc., with the group;

❏ tighter scheduling of visits, closer monitoring by officers;

❏ encouragement for participants and commendation where deserved.

The programme closed on a high note and attracted favourable comments from the media.

Source: End of Project Report, Primary Education Assistance Project (PEAP)
(see also p. 16).

The Scope Concept
SYNTHESIS

The objective

To provide the kinds of experiences to bring out the innate abilities of children and foster continuing community education to enhance individual community and national development.
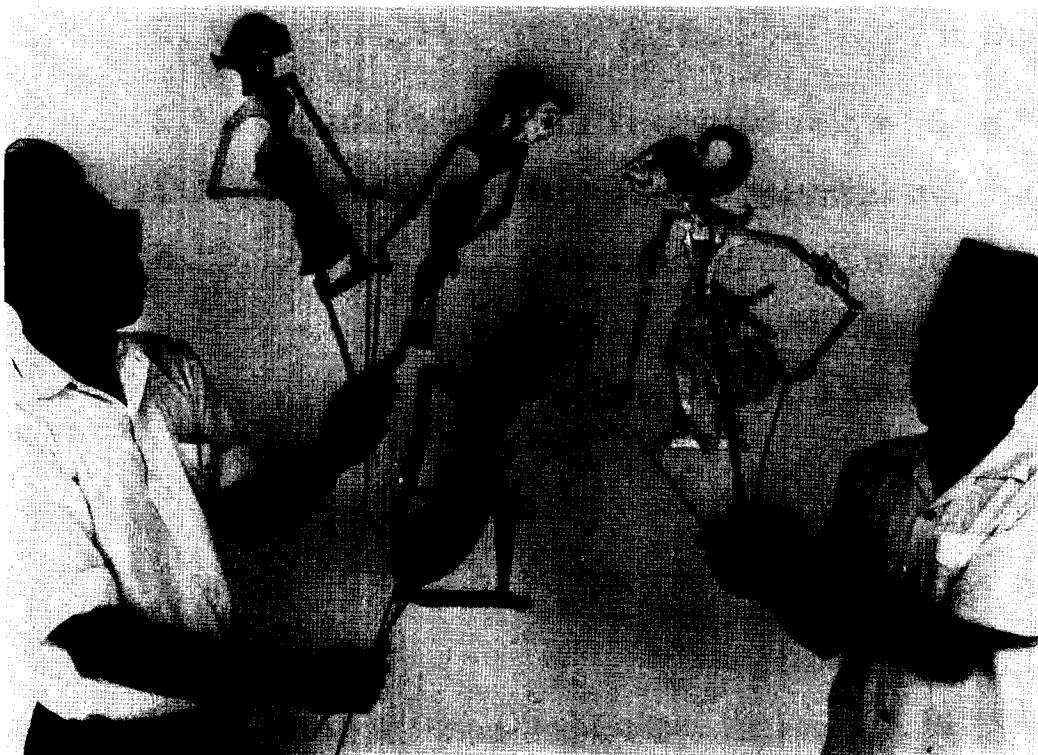
The tool

SCHOOL COMMUNITY OUTREACH PROGRAMME FOR EDUCATION

(SCOPE)
|
A development and management mechanism
involving
all aspects of school/community activities

The process

|

accomplished through
SCHOOL/COMMUNITY
PARTNERSHIP

|

(embracing) | (embracing)

ATTITUDES   ORGANIZATIONS/PERSONS

	ATTITUDES		ORGANIZATIONS/PERSONS
❏	Participation	❏	School board, teachers, students
❏	Co-operation	❏	Government agencies
❏	Sharing	❏	Churches
❏	Caring	❏	The private sector
❏	Involvement	❏	Organizations – local, national, international
❏	Appreciation	❏	Citizens

(resulting in)   (resulting in)

growth and development for
individuals
schools
communities
nation

Culture and Cultural Identity

TOPIC **7**

CONTENTS

Culture and Cultural Identity

Introduction

Culture and education have a reciprocal, mutually generative, symbiotic relationship.

Kidd and Colletta, 1980
(quoted in *EFA Monograph I*).

There is a growing awareness around the world of the vital importance of the cultural dimension of any human, societal or development effort. This is especially true in education. This topic explores insights into the interplay between culture, broadly defined, and education. It also explores the issue of language choice, i.e. the language(s) of instruction to be used in a particular setting.

The topic is divided into three parts: education as a preserver/transmitter of culture; culture to enhance education; and language choice.

Learning Outcomes

After working through this unit you will have:

❑ reached a better understanding of how education can promote the transmission and enrichment of cultural and moral values;

❑ considered how educators can provide education that supports and sustains culture while, at the same time, promoting effective learning of modern knowledge;

❑ explored how an environment can be created within schools and other education institutions that is conducive to the transmission of culture in a positive way, reinforcing its dynamic nature;

❑ considered how closer links can be forged between the school, the home and the wider community which can help minimize culture conflict and motivate for learning achievement;

❑ explored the relevance of the cultural context when designing programmes for different settings and age-groups;

❑ considered the question of language choice, i.e. the language of instruction to be used in a particular setting and its implications for learning achievement and cultural identity.

A. The Interplay between Culture and Education

The word culture has many different connotations and meanings, but as far as educational practices are concerned, a useful working definition may be: all those arts, beliefs, modes of behaviour and social institutions which characterize a community or an ethnic group. The culture of a people is expressed through a whole range of activities — language, ceremonial behaviour and ritual, songs, poetry, dance, dress, mannerisms, eating habits, sculpture and other artistic works. Culture gives a society or a nation its identity.

Activity 7.1

Individual Activity

Reflect on the following questions:

❑ What are some of the more pressing cultural problems in your country?

❑ What should be the role of education in promoting understanding of these problems and in contributing to their solution?

In the preceding activity attention was directed to the importance of the interplay between culture and education. In the environment of the educational process, culture can be considered both as the content (the what) of the process and as the context (the how and why) and the vehicle of the process. These relationships are examined in the following discussion.

Education as Preserver/Transmitter of Culture

Culture gives a society or a nation its identity. Societies are indeed identifiable through their cultural expressions. Hence, every society makes efforts to preserve its particular cultural heritage by transmitting it from one generation to the next.

However, there is also the issue of the dysfunctionality of certain aspects of traditional culture, that is, there may be aspects of traditional cultures which have proven to be no longer acceptable for some reason, e.g. they may be unhygienic or divisive, and therefore should no longer be passed on. Thus, there is a need to review and assess which aspects of culture should be preserved, renewed or discarded.

For example, in some parts of the world, female circumcision is practised because it has been handed down as part of the cultural heritage. However, various groups now claim that the reasons given for such a practice are no longer tenable. Tribal marks have also been handed down from one generation to the next. Today tribal identification by means of facial markings has lost its validity, especially in the presence of moves to

detribalize people and strive for national unity. In other parts of the world, girls and women, by virtue of their sex/gender and their roles in society, are simply not given basic educational opportunities. The traditional roles attributed to women as housekeepers and mothers keep them away from schools. Today this is considered a deprivation and an outright violation of the right to Education for All.

Activity 7.2

Individual Activity

This activity involves identification and assessment of some familiar beliefs, values, practices, traditions, rituals and modes of behaviour which describe the unique characteristics of your country.

1. To further our understanding about culture and education, let us do a little research. You might go to your local library or conduct interviews with people in your locality. Then make a report on the following:

   ❑ Common beliefs, values, practices, traditions, rituals, modes of behaviour which describe the unique characteristics of your country.

   ❑ The history and meaning of each of these in relation to the rights of individuals (specifically, women, children, disabled and minority groups) to education: are the effects positive or negative and in what way?

   ❑ A recommendation as to which of the above cultural practices you have identified should be preserved, reviewed, renewed or rejected.

2. Prepare for a presentation in a sharing session with your co-teachers.

Group Activity

3. Join your colleagues and share your report with them.

4. After your sharing, try to determine commonalities among your reports, specifically on the items you have identified as worth and not worth preserving, including the reasons.

5. List these common items in the format below:

Worth Preserving	Reasons	Not Worth Preserving	Reasons

Most likely there were agreements and disagreements in the assessments within your group discussion. This reflects another issue in the interplay between culture and education: *who* determines (and *how*) which aspects of traditional cultures have proven to be dysfunctional and should therefore no longer be transmitted?

The challenge posed is to preserve what is of value in the indigenous culture and to renew what must be renewed, especially in the light of the profound influence of science and technology on society, changing even the old concepts of locality and culture.

What is the role of education in this? In many parts of the world, education is regarded as a programme for social action. Schools, viewed as institutions for bringing such a programme into effect, are sometimes referred to as instruments for propagating culture. Thus culture, the arts and beliefs of a people, can be transmitted through planned activities in schools as well as through unplanned activities in the home setting. All children live within a cultural setting and can absorb aspects of this culture through both formal and informal education.

Activity 7.3

Group Activity

Going back to your output in Activity 7.2, let us now analyse how your own school curriculum contributes to preserving/disregarding those aspects of culture that you believe are worth/not worth preserving. You are also asked to identify specific school activities which address the culture preserver/transmitter role of the school.

1. Referring to your group output in Activity 7.2, which of the beliefs, practices, aspirations, values, arts, etc. are included in the formal instruction/curriculum in your school?

2. Would you say that the school is conscious of its role as an instrument for preserving/transmitting culture?

3. What activities are deliberately being undertaken by your school, whether curricular or extracurricular, to transmit or preserve cultural aspects worth preserving and/or reject those that are generally viewed as dysfunctional?

In addition to those already mentioned, many other issues have been raised in relation to the culture-preservation function of schools. One such question is: can culture be preserved and transmitted from one generation to another within a closed system? In other words, how can you keep alive what is unique in your society without closing your doors to outside influences? It may be considered that some positive aspects of a foreign culture, once blended into your own, will help to propel development. Some danger lies, however, in the possibility of an unhealthy dominance of such aspects of other cultures over your own indigenous culture.

B. Culture to Enhance Education

Cultural traditions should be seen not as obstacles, but as reservoirs of collective wisdom and foundations for new learning.

Hinzen, 1987
(quoted in *EFA Monograph I*).

No society will accept and respect an educational system which ignores its culture.

Setidisho
(quoted in *EFA Monograph I*).

Learning is a cultural process, so an understanding of the culture helps educators to appreciate the conditions from which new learning must start. This implies a positive rather than a negative role for culture in the learning process. Within this perspective two points can be made.

First, learning is a process in which existing culture is transmitted and where the potential for future cultural development is created. The school is but a part, albeit an important part, of the environment in which this takes place. This was discussed in part earlier where we talked of culture as content. Second, the cultural transmission and creation which occurs in school is not simply a matter of knowledge, skills and values – the *what* of learning – it is also about *how* people learn and *why* they learn. Indeed, these two dimensions of learning – the *how* and the *why* – may be as important, if not more so, than the *what* of learning in creating the competence and confidence required for sustainable learning and for the continued development of the individual and society. It is also this *how* and *why* which we refer to when we talk of culture as the context of learning. For an illustration of these two points, proceed to Reading 7.1 (page 9).

A culture-based education enables the acquisition of new knowledge, skills and attitudes within the framework of existing knowledge, cultural patterns, institutions, values and human resources. The idea is that indigenous culture is the fabric within which education and development can be best woven. Educational programmes that consider local cultural elements are legitimate and acceptable to the local learners as their own because these elements are recognised as expressions of reality in their surrounding world.

At this point, certain issues are raised in this discussion on culture as context. These issues are as follows: What is the impact on learning of a school with a hierarchical structure and organization which are basically alien to, or different from, the authority and organizational structure of the outside society it seeks to serve? In multilingual societies, what is the sacrifice in learning achievement and cultural identity that results from imposing, or even agreeing upon, a medium of instruction other than the local mother tongue? How can one make the sub-culture of the classroom a help rather than a hindrance to the learning process, and to what extent is that subculture in harmony with the larger societal culture in which the learner exists and in which he or she must function?

These issues are important because, in many instances, students are taught content irrelevant to their needs, in the context of a structure of authority alien to them, with the use of a language, textbooks and even teachers foreign to them. On the other hand, it is easy to see the danger of advocating a closed education system which, in the name of cultural preservation, effectively cuts off a subcultural community from the mainstream of national and international knowledge, progress and development (see also Activity 2.3.3, The Tonga People of Dande Valley).

In summary, in the environment of the educational process, cultural traditions should be seen not as obstacles, but as reservoirs of collective wisdom and foundation for new learning. This is true for both formal education and non-formal education.

C. Language Choice

In the previous section, we mentioned the choice of medium of instruction as one issue in the interplay between culture and the educational process. Indeed, the choice of the language of instruction is a fundamental factor in this interplay. In fact, it is said that language is the basis of culture. If the language is lost, the culture is also in danger of being lost.

You may have included in your list of advantages the importance of literacy in the mother tongue, both for children and adult learners. It has been widely recognized that a child's mother tongue is the basic tool for understanding and communicating with the surrounding world. Effective primary education builds on the child's learning in the mother tongue within the context of the community. Local languages are a vital tool in the development of the mind. They do not, however, simplify the complexity of the choice of the language of instruction that may have to be made. The

issue of language is complex and solutions are often controversial. Although other facets have to be considered, language choice is still a political issue in many situations.

Activity 7.4

Group Activity

This activity asks you to read further on this complex issue and then analyse the language situation in your own country.

1. Form two groups:

One group should take the stand that the language of instruction (first language) should be a language of wide diffusion (possibly one of the so-called world languages), with the mother tongue as the second language at a particular level of education.

The second group should take the stand that the language of instruction (first language) should be the mother tongue and the language of wide diffusion the second language of instruction.

2. Each group should discuss the topic assigned to it for 15 minutes and then present a 5-minute report to the group as a whole.

Individual Activity

Using the reports as background, answer the following:

3. What is the first language of instruction in your school? Is it a language of wide diffusion or is it the mother tongue of the majority of the pupils?

4. In your experience, what are the advantages and disadvantages of different language policies in terms of the learning achievement of pupils?

5. As a teacher, what difficulties have you encountered in teaching due to the language of instruction used in your school?

6. In general, is the language policy adopted in your country for the medium of instruction in schools and in adult-literacy programmes satisfactory? If not, what changes should be made and by whom?

Choosing a language of instruction requires an examination of language needs ranging from those of the local community to those of the nation. From among the hundreds and thousands of local languages and dialects which may be spoken by people in a given country or state, which should be chosen as the medium of instruction in schools? How should it be taught? How will it affect people's lives?

Proceed to Reading 7.2 (page 10) for an elaboration of the three common, though unjustified, assumptions which often underlie discussions about language choice.

Summary and Concluding Activity

By now you will have considered how education can preserve, transmit and create what is valuable in one's culture. You will have explored the crucial role and the importance of culture and cultural contexts in enhancing education and the process of learning. You will also have faced questions which arise with regard to the choice of language of instruction in educational programmes. These lead to the final activity.

Activity 7.7

Group Activity: Integration

Given your learning from this unit, suggest changes or improvements that your school and the entire education system in your country might make in the areas of:

❑ the school curriculum;

❑ instructional methods and materials;

❑ management of the learning environment;

❑ the choice of language of instruction;

❑ ways of forging links between the school, the home and the wider community which will minimize culture clash;

❑ using existing institutions.

Plan how you might present your proposals to your school head or principal.

Readings

Reading 7.1
Culture and Learning: The Learner's Perspective

A *cultural learning pasture* comprises the knowledge (the *what*), the learning strategies (the *how*) and the learning orientations (the *why*) of those who currently feed in the pasture, educators among them. Learners, for their part, approach the pasture with a base learning culture (i.e. a body of existing knowledge, understanding and attitudes) which they use to construct and reconstruct learning events.

In a static society which reproduces itself perfectly, the gap between the two cultures is relatively narrow. Although the learning gap may appear wide to the learner, the educator can fairly readily understand the language and concepts of the learner and can build from them in a way which makes learning effective. However, where a learner encounters a cultural learning pasture occupied by educators of a social group radically different from that of the learner, the language, concepts, strategies and orientations may be so unfamiliar that both learner and educator experience difficulty in making contact with each other. This learning gap cannot easily be bridged.

When effective learning does take place, the *base learning culture* of the learner changes. The effective educator's role is to understand the culture of the learner and to present elements of the new cultural learning pasture in a way which connects with pastures previously encountered by the learner. Effective learning involves the achievement of, and progression through, a succession of dynamic equilibria between learner and educator as a result of which the culture of the learner changes and takes on a new form. However, if the initial gap between the two cultures is too wide, learning will become less and less effective.

How do the learner and the educator know *whether* learning has taken place? How is learning assessed? In the *home*, assessment is implicit and continuous. It is undertaken by the learner and the educator (usually a parent or sibling) and is criterion-referenced; that is to say, the learning is assessed relative to a knowledge or skill criterion (for instance, a child is able to feed himself or herself with a spoon). Mastery learning is expected from almost all children, even if it takes some a little longer than others. In the *school*, by contrast, assessment is more explicit. Frequently it is a one-off rather than a continuous activity. It is often undertaken by an authority external to both the learner and teacher and is norm-referenced; that is to say, the learner's achievement is not measured in relation to a criterion but in relation to the performance of others. It is not normally expected that all the learners will achieve 100 per cent success, particularly as one purpose of such assessment is selection for entry to the next cycle of education.

The home and the school are not, of course, the only cultural learning pastures. Others – the workplace (field, river, workshop, etc.), the mosque, church or temple and the market, for example, all have their own characteristics in relation to the *what*, the *how* and the *why* of learning.

The *World Declaration on Education for All* rightly emphasizes the importance of effective learning for all: 'The focus of basic education must, therefore, be on actual learning acquisition and outcome, rather than exclusively upon enrolment, continued participation in organized programmes and completion of certification requirements. . . It is, therefore, necessary to define acceptable levels of learning acquisition for educational programmes and to improve and apply systems of assessing learning achievement.' (Article 4, *World Declaration*)

Adapted from: EFA Monograph I.

School-based assessment usually implies the selection of some as successful and others as unsuccessful learners. One of the challenges for the implementation of Education for All is to reconcile the assessment of learning for all with the selection of a few, where necessary.

Reading 7.2
Language as a Factor in the Interplay between Culture and the Educational Process

Language is the basis of culture. If the language is lost, the culture is also in danger of being lost. As already suggested, language choice is a fundamental factor in the interplay between culture and the educational process. The issue of language is complex, and solutions are often controversial. In many situations language choice is still a political issue, but it also has many other facets.

To a poor child or adult, school or a literacy class may seem to be an alien place, part of a richer, more powerful world that is difficult to enter and in which it is even more difficult to succeed. If the people in this world also communicate in a strange language, then the difficulties seem overwhelming.

There is general agreement on the importance of literacy in the mother tongue, both for children and for adult learners. But written language is the indispensable medium of literacy. Yet of the more than 4,000 spoken languages in the world, only about 300 are in regular use in written form and fewer than 100 of these have a significant written literature. As most countries are multilingual, the concept of making the mother tongue a first choice for new learners may have to be redefined in terms of making another language well-known to the learners a first choice. This can be of special importance in ethnically mixed areas.

The complexity of language choice

While there is general agreement with regard to the importance of early mother-tongue instruction and literacy, agreement on many other language issues is really only possible at the national level. Continued use of former metropolitan, colonial, languages throughout vast areas, such as 'English-speaking' and 'French-speaking' Africa, tends to obscure the great complexity of the issues which impede the making of clear choices about language in many countries. It may not be sufficient to choose a 'national' language and also to encourage initial 'mother-tongue' instruction. There may also be an official language, possibly one with no traditional roots in the country. These considerations, coupled with the high cost and high failure rates associated with some language policies, have led to the recognition that local languages are irreplaceable and a vital tool in the development of the mind. However, this is no way simplifies the complexity of the choices that have to be made. There are four main types of situation:

No linguistic majority. In Nigeria, for example, there are three major languages – Hausa, Igbo and Yoruba – and about 400 other languages spoken by small communities. In Papua New Guinea over 700 languages are spoken by a population of barely 4 million. In some countries with a great variety of languages, a pidgin or creole, usually based on a European language, evolved as a means of communication between members of different linguistic groups.

A *lingua franca relating to several indigenous languages*. Swahili in East Africa, for example, evolved from indigenous languages and is closely related to a variety of local languages still in use.

Predominant indigenous language. For example, Quechua, a language indigenous to the highlands of Peru, Ecuador and Bolivia, is spoken by large portions of the population, although Spanish is the official language of these countries. Somalia is one of the few African countries in which the overwhelming majority of the population speak the official language, Somali. The situation is unusually complex because Somali has only recently become a written language, and the two former colonial languages, English and Italian, are still widely used.

Multiple languages with *literary and religious traditions*. India, with over 1,000 languages and more than a dozen scripts, acknowledges fourteen official regional languages; these are used, but not exclusively, in local and state government, in politics and in education. Hindi has the status of national language, but English is widely used in government and politics, in commerce and industry, and in education.

Choosing a language of instruction

Education for All requires an examination of language needs ranging from those of the local community to those of the nation. Which language should be chosen? How should it be taught? How will these choices affect people's lives? The choice is often between using a language of wide diffusion (a so-called world language) as the first language, and the mother tongue as the second language at a particular level of education, or using the mother tongue as the first language and the world language as the second.

The languages of wide diffusion, e.g. Arabic, Chinese, English, French, Portuguese, Russian and Spanish, all have their cultural connotations. The use of other, indigenous, languages varies widely in level and extent. There are often several to choose from in a given country or state, and choices inevitably carry with them the likelihood of alienating some groups while favouring others. However, it is generally agreed that the point of departure for a language policy should be consideration of the role of local languages in the lives of the people.

Three common assumptions, none of which is justified, often underlie discussions about language choice.

The first is that multilingualism is a hindrance to development. Yet Singapore, for example, with the third-highest gross domestic product among countries of the Pacific Rim, has four official languages. In school, children learn in one of the official languages, English, Malay, Mandarin Chinese or Tamil, and must also study one other official language as a second language.

The second assumption, also mistaken, is that the most direct route to development is for everybody to learn in a 'world' language. Is it really necessary for everybody to know a world language? Small countries in Europe have demonstrated that it is quite possible to conduct education in their own languages and also have sufficient numbers of people fluent in at least one of the world languages.

The third mistaken assumption is that language patterns are fixed and unchanging. In fact, the patterns and the languages themselves are constantly changing. People on the move take their languages with them. Experience with refugees provides valuable insights. Adults adapt to new languages less easily than children, but for all refugees and migrants, understanding the language of the host community is the key to local acceptance.

A child's mother tongue is a basic tool for understanding and communicating with the surrounding world. Effective primary education builds on the child's early learning in the mother tongue, but within the context of the community. If literacy is to be sustained, children and adults need occasions to use their literacy within the community. It can be sustained through work situations and through opportunities for secondary education, although this may mean moving from literacy in the mother tongue to literacy in a second language. Literacy can facilitate access to community services such as health care. Effective education at the community level thus helps to develop human resources. Good language policy demands a response to the dynamics of language and of language situations as they reflect changing social and economic circumstances.

Some key problems and issues.

Parental choice and wishes constitute an important factor which has to be taken into account. In many cases, while they are happy for their children to start their education in the mother tongue, parents are anxious for them ultimately to have access to the language of the national economy and government.

The linguistic complexity of many urban areas pose other problems. In urban West Africa, for example, the spoken language in a particular town is not necessarily the mother tongue of most inhabitants. In such situations either the local spoken language or the particular world language currently used would be the preferable language of basic education.

Bilingualism raises a whole series of issues. Evidence from several sources suggests that it can have a very positive influence on learning. Research in Northern Australia covering fifteen aboriginal languages has been conducted over a sixteen-year period. Evaluation of pupil progress has shown that by the seventh year of primary school bilingual children did better in all tests, especially English and mathematics.

Children and adults learning together is an issue that needs consideration. While the importance of literacy for both children and adults is now widely acknowledged, special problems arise if the language of adult literacy (for example, the mother tongue) differs from that of the primary school (for example, a national language). In general, different age-groups have dissimilar learning needs and, therefore, require different learning materials and methods. Nevertheless, this does not preclude adults and children learning at the same place in the same language, thus promoting community involvement and a common medium of communication.

Minority cultural groups, whose mother tongue is not in regular use in written form, can easily be left at the margins of basic education systems. Similarly, problems of access and equity are often faced by refugees and displaced persons as they move between different language groups.

The preparation of reading materials for multilingual situations can be costly. However, methods have been developed to reduce costs by preparing illustrations common to publications on the same subject with texts in different languages.

Adapted from: EFA Monograph I.

The

Education for All

Teacher - Training Package

Volume 2

Edited by Sheila M. Haggis

UNESCO   UNDP

Foreword

The World Declaration on Education for All, adopted unanimously in March 1990 by the World Conference on Education for All meeting in Jomtien, Thailand, is a call for action to meet the basic learning needs of all children, youth and adults. The Conference was convened and sponsored jointly by the executive heads of UNESCO, UNICEF, the United Nations Development Programme (UNDP) and the World Bank. It was hosted by the Government of Thailand, and eighteen other governments and organizations were co-sponsors.

The Declaration underpins a worldwide consensus on an expanded vision of basic education and a renewed commitment to provide education for all in all countries. The task of giving effective expression to the values and ideas it embodies constitutes a major challenge to teachers everywhere and indeed to all those engaged in the educational process at all levels. Their co-operation and support and, above all, their own understanding of and commitment to these values and ideas together constitute the most important prerequisites for success. Only through their efforts will basic learning needs be met and thus lead to the empowerment of both individuals and society which is central to the expanded vision of basic education for all.

Recognizing this, UNESCO, supported by UNDP, launched a project to prepare a teacher-training package which would make the main messages of the World Conference readily accessible to those involved in basic education worldwide. The package has been designed to encourage all working at the grass roots to think in practical terms about the implications of 'Education for All' and about what it means to meet 'basic learning needs'. The purpose has been to provide a basis for in-service training courses for teachers as well as for courses at the pre-service level. Presented in the form of a series of topics, the package has been designed as a complement to teacher-training programmes. At the same time, the material will be found to be well-suited for self-directed study by teachers, teacher trainers and personnel engaged in education management and administration, working individually or in groups.

It can also be adapted for use in distance education. Furthermore, it is hoped that the package will be of value as a means of preparing the ground for the longer-term process which, with the collaboration of ministries and education authorities, non-governmental bodies and teacher-training institutions, will ensure the continued development of the materials and their acceptance as an integral part of pre-service and in-service training programmes for education personnel.

The materials which make up the package were prepared in the context of technical co-operation among developing countries. They are the product of development and testing of a series of modular elements by three working groups of educators and teachers – one in Africa (based in Zimbabwe), one in Asia (based in the Philippines) and one in the Caribbean (based in Jamaica). Their contributions, therefore, reflect the settings in which they work. But to emphasize the common purpose, provision was made for the leaders of the groups to meet together to review, assess and consolidate their contributions. The overall design of the package and the final editing and adapting of the material has been carried out by Mrs. Sheila M. Haggis.

Sheila Haggis worked with great courage and commitment to complete this package before her untimely passing in April 1995. The materials reflect her absolute dedication to the cause of Education for All. Sheila Haggis joined UNESCO in 1969 and devoted her life to helping teachers and teacher-educators worldwide. This package is dedicated to her memory.

Colin N. Power

Assistant Director-General for Education

Structure and Use of the Material

The package is made up of an introductory unit, twelve substantive topics and a concluding unit. The substantive topics cover many different aspects of Education for All, ranging from access and equity to the environment for learning, and from cultural identity to scientific and technological literacy and the world of work. Most should involve three to four hours of work but three (Topics 2, 9 and 11) are each likely to require a total of eight hours. Topics 12 and 13 are of particular relevance to those in ministries, local authorities and schools who are primarily concerned with the planning, organization and administration of education. However, in view of the prevalence of one-teacher schools in some parts of the world and given the fact that it is not uncommon for teachers to be assigned administrative responsibilities without further training, early orientation in some administrative aspects of Education for All should prove useful.

The material has been designed primarily for use in in-service training courses or in a one-semester pre-service course. If it is used for self-study by teachers, the programme should be organized in a way that will enable them to work together in groups and not be left in isolation. While the topics have been designed as a series to be covered as a whole, each is complete in itself so that, if necessary, individual units can be selected for incorporation into national or local training programmes.

Each topic is introduced by an overview outlining the nature and scope of the material together with a list of expected learning outcomes. The main body comprises a series of learning activities. These are presented in a logical pedagogical sequence, interspersed with readings and complemented by bibliographical references and suggestions for further reading and study. The accompanying audio-visual material forms an integral part of the package.

The package, as a whole, will be found to draw substantially on three specially commissioned monographs. These were published by UNESCO to provide a synthesis of the work of the series of round tables organized during the World Conference on Education for All and contain a valuable body of supporting material.

Users of the package are strongly recommended to work through the material in the sequence in which it is presented, with all 'activities' being carried out as described. These vary widely and, while some may be taken at a relatively leisurely pace, others call for considerable sustained concentration and effort. Some involve watching a video and then discussing it with colleagues. Others involve identifying issues, problems or topics for study in a particular field of education. Still others invite participants to construct models or to engage in role play and games designed to help them gain an understanding of particular concepts. Some activities are to be carried out individually, others in small groups or by all those following the course.

The intention throughout is to engage each member of the course in an active process of learning and of thinking through the questions and issues being presented. He or she must be stimulated and encouraged to interact with the other participants. Some may not be familiar with certain of the techniques, particularly role play and games. It is important for the course organizer to be aware of this, ensuring that the activities are carried out constructively and encouraging participants to recognize the value such techniques can have for their own teaching. They should certainly be encouraged to write down the results and conclusions of each activity so that at the end of the course they will take with them a permanent personal record for future use.

The Education for All Teacher-Training Package

Volume 2

Towards Functional Literacy and Beyond

UNESCO

TOPIC 8

CONTENTS

Towards Functional Literacy and Beyond

Introduction

This topic focuses on the fact that literacy is a fundamental requirement if individuals are to develop their full potential and if societies are to progress purposefully and harmoniously into the twenty-first century. It examines the causes of illiteracy – the magnitude of the problem in the world and the society being studied – the justification for a national effort and efforts being made in some places, with the reasons for their successes and failures, and, perhaps most crucial of all, how to maintain whatever gains are made in mastering the problem.

Learning Outcomes

By the end of this topic you will have:

- ❑ recognized the importance of adult literacy for individual and national development;

- ❑ considered the reasons for, and the advantages of, investing in an adult-literacy programme in your society;

- ❑ explored some of the ways being used effectively to promote literacy elsewhere and considered a suitable alternative for your own situation;

- ❑ paid special attention to the needs of any groups that seem particularly disadvantaged in your society;

- ❑ considered how you might move people from basic to functional literacy;

- ❑ considered how to avoid the vexed problem of 'lapsed literates'.

Content

A. The Problem of Illiteracy

Nearly one billion people in the world cannot read, write or do simple numerical calculations. _The problem of illiteracy affects all nations, rich or poor, industrialized or otherwise._ However, the majority of illiterates live in poor underdeveloped societies.

The Causes of Illiteracy

The causes of illiteracy are many and varied. The fact that it is frequently linked with poverty suggests that some of the causes could be the inadequate provision of schools, an inadequate number of properly trained teachers and the

economic situation of families that make education for their children a low priority. There are also other causes, such as disabilities, that remain undiagnosed and unserviced. There are social and cultural priorities and values (e.g. gender) that make one set of children more likely to be educated than another. There are huge numbers of children, not least among them orphans and street children, who never get the chance to go to school at all.

Activity 8.1

1. Examine the map of illiteracy around the world (See Appendix).

2. Discuss the causes of illiteracy mentioned above. In what ways does each contribute to illiteracy? Do any or all of these apply to your country?

Who is Literate?

UNESCO *(ILY: Year of Opportunity)* defines a literate person as 'one who with understanding can both read and write a short simple statement on his or her everyday life'. It goes on to state: 'Yet, there are many people who are literate in this restricted sense, but who none the less suffer serious problems with more complex reading and writing tasks. These are the functionally illiterate'. To be functionally literate a person must be able to 'engage in all those activities in which literacy is required for the effective functioning of his or her group or community and also for enabling him or her to improve reading, writing, and calculations for their own and the community's development'. Functional literacy is a relative measure rather than an absolute one. The same measure of skill may result in one person being considered functionally literate in one context and totally illiterate in another. If we consider the matter more deeply we are all illiterate in one way or another. We may know English but not French or Finnish or understand a computer language. We may be able to read a page from a novel with joy, but be left in puzzlement by one from a statistics book. We may understand a map of our local bus system, but are left bewildered by a diagram of the electrical circuits within our own home. The simple dichotomy, 'literate' versus 'illiterate', does not adequately deal with levels of skill that run from zero to Shakespeare and vary from utter confusion in one sphere to easy mastery in another. Illiteracy is, therefore, not a completely foreign concept to any of us.

Activity 8.2

Group Activity

1. Note the increasing sophistication of the definition of literacy.

2. Each person should share with the other members of the group an area in which *they* consider *themselves* to be functionally illiterate.

Levels of Literacy

It is important, therefore, that we recognize that there are levels of literacy. We may start with total illiteracy, move on to the concept of readiness, on to word recognition, through phonics to comprehension to functional literacy, then move towards the ability to attack new fields of written knowledge and finally towards a certain degree of operational independence as we become more and more literate.

Why should we Deal with the Problem of Illiteracy?

'Every person – child, youth, and adult – shall be able to benefit from educational opportunities designed to meet their basic learning needs. These needs comprise both essential learning tools (such as literacy, oral expression, numeracy, and problem solving) and the basic learning content (such as knowledge, skills, values and attitudes) . . .' (from Article 1, *World Declaration on Education for All*).

When a person learns to read, there is a definite development that goes from personal enfranchisement and the development of a certain self-concept to the development of a better vocabulary and a movement towards ideas and communication. These ideas can affect the community through the more literate members, and help to teach how individuals can be good parents, how to foster the nutritional strength of one's family, how to deal with the environment, how to deal with modern technology, etc. Eventually these empower the entire society.

The home and the family can have a considerable influence on the development of literacy in young children. By promoting partnerships with parents, the school can help them to reinforce its own efforts through the provision of reading materials and encouragement to use them. In situations where parents are themselves illiterate, arrangements can be made for parents and children to learn together.

'Literacy programmes are indispensable because literacy is a necessary skill in itself and the foundation of other life skills. Literacy in the mother tongue strengthens cultural identity and heritage. Other needs can be served by: skills training, apprenticeships, and formal and non-formal education programmes in health, nutrition, population, agricultural techniques, the environment, science, technology, family life, including fertility awareness, and other societal issues.' (from the EFA World Declaration).

Activity 8.3

Examine and discuss how literacy:

1. helps to make individuals more productive;
2. helps to stimulate the economy;
3. fosters the ability to communicate and the ability to claim equality, social justice and human rights;
4. enables the appreciation and use of science and technology – an inescapable part of modern living.

Comment

Literacy has been shown to be crucially important for personal and societal development. It also fosters economic/productive development as well as political maturity. It is a vital tool in nationbuilding.

B. Adult Literacy Programmes

Activity 8.4

Group Activity

In a country of limited economic resources, discuss where a national adult literacy programme should come on a list of priorities which include such items as:

☐   health;

☐   food production;

☐   primary/secondary/tertiary education;

☐   transport;

☐   water;

☐   housing.

Try to be factual rather than emotional about the matter.

Activity 8.5

1. Try to ascertain what actually is the status of literacy in each region of your country.

2. Make a chart of your findings, using the format provided, and display it permanently alongside the world map.

The total population of the country is . . . .

The number of males is . . . .

The number of females is . . . .

The number of adult illiterates is . . . .

The number of male illiterates is . . . .

The number of female illiterates is . . . .

The total school-age population 4-16 is . . . .

The number of boys in school is . . . .

The number of girls in school is . . . .

The Design and Implementation of an Adult Literacy Programme

This is inevitably influenced by:

❑ the culture of the country;

❑ the political will;

❑ the urgency with which the problem is perceived;

❑ the available resources;

❑ the contribution of non-governmental organizations;

❑ the expressed needs and motivation of the learner.

Experiences around the world have shown that cultural norms tend to influence who gets the opportunity to become literate – that political attitudes can make membership of a literacy programme an absolute requirement, or can make it voluntary and depend on motivation for its appeal, that some countries have chosen a quick, short, major programme for eliminating illiteracy, while others have chosen a longer, drawn-out route. With the best will in the world, economic problems do affect the scope and results of literacy programmes and the help of non-governmental organizations can make a significant contribution.

JAMAL (The Jamaica Movement for the Advancement of Literacy) has been in existence for two decades. The programme was constructed around five major factors:

1. _Motivation_ – A major programme was mounted to show the economic, personal and social advantages of becoming literate. It did not choose the alternative of compulsion.

2. _Management_ – A central controlling body was set up with specially defined responsibilities assigned to local bodies. There were volunteer teachers and voluntary students. Literate volunteers were, however, not necessarily teachers and frequently had to be trained.

3. _Money_ – A considerable annual input from government, with some international help, and a major ongoing fund-raising programme was instituted.

4. _Methodology_ – Four levels of competency were recognized and official graduation came after the mastery of level four. Most teachers had to be oriented to a methodology and materials suitable for _adults_. Level 1 – using large print and attractive cards and words that dealt with matters of concern attempted to teach about 35 words by the 'Look and Say' method. Level 2 – introduced phonics, fostered the ability to blend sounds and introduced topics of interest to the reader. It aimed at recognition of about 114 words. Level 3 – aimed at a mastery of 264 words and the material dealt with adult preoccupation,s e.g. getting a job. Level 4 – contained increased emphasis on writing, comprehension and simple word games.

5. _Maintenance_ – A gradual emergence of materials and programmes to keep the graduates reading.

It was recognized that adult illiterates did not just appear out of nowhere. In the main the total was increased annually from a substantial number of illiterates that emerged from the school system. The government therefore:

1. Increased the intake to teachers' colleges. There was explicit emphasis on such courses as:
   - ❑ fundamentals of teaching reading;
   - ❑ developmental reading;
   - ❑ reading in the content area;
   - ❑ remedial reading.

2. Raised teachers' salaries.

3. Started a programme of building new schools and of refurbishing older ones – in short, of increasing the number of school places.

However, after two decades, the impact of political, economic and social changes have been considerable, as have changes in the level of zeal and excitement generated by the programme. Changes in the government varied to some extent the emphasis on the programme. The declining economic situation affected how much money was available and how much volunteer help was forthcoming. Social changes all over the world tended to change attitudes towards the effort involved. Between 1972 and 1985, illiteracy was reduced from 50 to 15 per cent. However, since then the success rate has slowed significantly for all the reasons mentioned above and after two decades illiteracy has not yet been eliminated!

Other campaigns, structured in many different ways, have been mounted around the world in countries as far apart as China, Cuba, Viet-Nam and the United Republic of Tanzania. Many, where strong central-government leadership was evident, claimed outstanding success.

Activity 8.6

1. What measures are being taken in your country to improve literacy in the population?

What are their strengths and weaknesses?

2. If a national programme has not yet been implemented, what design would you recommend?

3. Break up into groups to discuss the five major factors on which the JAMAL programme was based and make a combined report on what you would like to see undertaken in your country.

Comment

Experience indicates that three major factors are required for the successful implementation of a campaign. First, states which have achieved success have invariably had a strong political commitment and the power to mobilize all the human, institutional and material resources they needed. Second, successful campaigns have been based on centralized formulation of policy coupled with a decentralized organization and implementation by local authorities. Finally, the campaign approach has worked well only when political priority has been assigned to literacy as an integral part of a broad national strategy or as a revolutionary movement designed to overcome poverty and injustice. In such situations the demand for literacy becomes part of a more general aspiration for a better life. As such it lends itself to ready acceptance of mass mobilization.

The Specially Disadvantaged

In many societies women are particularly disadvantaged. The estimate, that in the world today one in every three adult females is illiterate, is frightening. Usually this stems from religious, social or economic reasons. However, the consequences for the women themselves and for the rearing of their families are too important to be overlooked. There appears to be a direct relationship between literacy and fertility. As women become literate and empowered to control their own lives, they choose to have fewer children. It also appears that wherever the opportunity for gaining literacy has presented itself to women they have more often than not embraced it eagerly; in some regions, including the Caribbean and some parts of Africa, their achievements have been surpassing those of the men.

In addition to women generally, persons of all ages with disabilities are frequently marginalized in the education systems of many countries. The physically handicapped – the visually, hearing and speech impaired, and the mentally handicapped, all need and deserve special treatment. Teachers of special education need to be prepared and special schools or classes, e.g. for the visually impaired or the hearing impaired, have to be organized. It is impressive how many of these persons can be enabled to help themselves and be less of a burden on their families or on government coffers. Frequently there are cultural attitudes that give the problems of these persons a low priority (see also Topic 2).

Finally, there is an elusive set of disadvantaged persons – those who drop out of school because of frustration, poor personal or family attitudes. Others are unable to master the skills of reading because of irregular attendance due to economic problems or malnutrition. Furthermore, there is the vast number of children, among them orphans and street children, who have never attended school. It is highly desirable that they too should be catered for.

The urgent need is for literacy programmes to reach out to the 'unreachable' and include the 'excluded'.

C. Developing and Maintaining Functional Literacy

Today, making literacy functional implies placing people at the centre of their environment and providing the means for them to participate actively in community life. One working definition calls for a person to be able to engage in all those activities in which literacy is required for effective functioning in his or her group or community and also to be able to continue to use reading, writing and calculation for his or her personal development, as well as for that of the community. Functional literacy is an effective measure of an individual's capacity to cope with the practical challenges of a given environment.

As individuals pass through successive phases of their lives, they experience different learning challenges which need to be met in a flexible and dynamic way, and for this the possession of sound literacy skills can be of vital importance.

The mere ability to read is not sufficient to keep an adult abreast of all the claims that are made upon him or her in daily living. After word recognition, the learner needs to be able to extract a meaning or message from a word or combination of words. Later, he or she needs to be able to call up the information gleaned and use it practically or communicate it correctly to another person.

In the formal school system a number of factors can contribute to the achievement of functional literacy. They include:

- ❏ reading games that require the extraction of particular information from a given text;

- ❏ reading in the content area of other subjects – especially those in which the learners are particularly interested;

- ❏ writing letters, reports, stories, etc.

If literacy is to be sustained, the quality of the teaching and learning in literacy classes is very important. Too often, poor quality and unsatisfactory conditions of teaching are prevalent. In such situations, adults will at first enrol enthusiastically only to rapidly become disillusioned and drop out.

At the adult level the interests and preoccupations of the learners will obviously be different. _They must never be treated like children_. One of the first objectives of most adults who join a literacy programme is to improve their economic status, as a result of which skills training is a very important adjunct of such programmes. There needs to be a complementary system of skills training and the development of simple manuals relevant to the required skills and, as far as possible, to other adult interests. Employers can be encouraged to participate in this, as well as religious groups and non-governmental organizations.

Keeping New Readers Literate

Literacy – basic and even functional – can be lost. To avoid this it must be subject to *constant, meaningful use*. The 'lapsed literate' is the Achilles' heel of the administrator, the teacher, the researcher and the analyst. The knowledge and skills acquired in literacy classes need to be properly sustained and strengthened. This involves, first of all, the creation of opportunities for further learning, either through continuing education or through links with formal education. The responsibility for this extends beyond the organizers of literacy and post-literacy programmes and rests on many others, among them public administrators and various development agencies. For example, extension services, health clinics and postal services can actively assist in building up a favourable environment for literacy use.

Materials and experiences must be designed to be both meaningful and interesting and at the same time be constantly, incrementally, challenging. There must be information about what is happening in the society and the world. Today, the use of reading material to obtain this information is seriously challenged by radio and television. There must also be training sessions in the preparation of reading materials that lead to the provision of:

❑ stories for recreation – romance, adventure, etc. – to encourage readers to come back for more enjoyment. Again, interest is likely to be seriously challenged by radio and television presentation.

❑ 'How to do' books for carpenters, painters, repairmen and other craftsmen and women;

❑ simple First Aid books for domestic emergencies;

❑ simple farm manuals;

❑ great religious books (where appropriate in 'modern language' versions) for those who are so inclined;

❑ reading materials especially designed for women living in particularly disadvantaged situations.

Comment

It is extremely important to promote the use of the written word in rural communities through libraries, rural magazines, wall newspapers, posters, public notices, etc. In fact, in order to stimulate awareness of the need for literacy, the introduction of easy-to-read material may precede the literacy programme itself. The sustaining of literacy skills is frequently more difficult for women than for men. The reading materials that are available are often not designed with women's needs and interests in mind. Women may also have less access to reading material and less time to read it.

Final Comment and Exercise

The child/youth/adult status of learners inevitably affects the approaches and materials used – but above all it requires that everything that they are asked to do must be _relevant_ to the demands of their daily preoccupations.

Illiteracy in the world in 1990

I	■ 66.7% or more	IV	□ 10% - 33.2%
II	■ 50% - 66.6%	V	■ Less than 10%
III	□ 33.3% - 49.9%	VI	□ Data not available

Data Source: UNESCO World Education Report 1991

Scientific and Technological Literacy and Numeracy

China Association for Science and Technology

TOPIC 9

CONTENTS

Scientific and Technological Literacy and Numeracy

Introduction

In a world increasingly shaped by science and technology, scientific and technological literacy is a universal requirement if people are not to be alienated in some degree from the society in which they live, and if they are not to be overwhelmed and demoralized by change . . . it is vital to improve scientific and technological literacy among women and girls, whose unique educational function within the family makes them such a major determinant of the attitudes of present and future generations. . . . We need, through educational means of all kinds, formal and non-formal, to bring about a much more thorough infusion of scientific and technological culture into society. Only in this way shall we succeed in creating the continuum, the virtuous circle encompassing the establishment of a broad educational base in science and technology, enhanced capacity to cope with change and to pursue development goals, scientifically informed decision-making, and finally – completing the circle – expanding investment in human development. . . .

[1]*Federico Mayor, Director-General, UNESCO.*

There is probably no factor that marks the change in the nature of modern society more than the pervasiveness of science and technology. It is therefore important to understand that basic education must prepare generations of young people equipped to confront the problems posed by the advance of science and technology, and able to recognize which applications are likely to be beneficial and which are potentially harmful. This topic examines the contributions which teachers can make in the fields of science, technology and mathematics education to prepare their pupils to meet these challenges.

Learning Outcomes

By the end of this topic you should have:

❑ come to an appreciation of the importance to society of science, technology and mathematics;

❑ reached a better understanding of how education can prepare children and adults for life in an increasingly technological world;

❑ considered some of the steps which need to be taken to bring into being an effective programme for scientific and technological literacy and numeracy in your own particular setting;

❑ considered ways to make the teaching of science, technology and mathematics more real in terms of the life situation of your pupils.

1. *Project 2000+ International Forum on Scientific and Technological Literacy for All, Paris, UNESCO, 1993.*

'For a country to become truly independent, it needs to be in a position to understand technology, put it into appropriate use and develop it to meet its own needs. Yet, more than one third of the world's adults and children have no access to the knowledge, skills and technologies that can improve the quality of their lives and help them shape and adapt better to social and cultural change. This can only come about if scientific and technological literacy and numeracy are a basic part of everyone's education.' (*EFA Monograph I*).

The ability to cope with issues such as population, health, environment, energy sources, finite resources, risk assessment, global change and sustainable development at local, national and international levels is a basic learning need. Such social and environmental issues all call for an increasing degree of scientific and technological literacy on the part of the populace for the understanding and for the decision-making required to stimulate the necessary action. Science and technology are part of the culture of all societies and should not be conceived as mental and manipulative pursuits isolated from society. Even where basic education in schools includes a component of science and technology, bridges need to be built linking formal and non-formal education with real life so that what is learned in school comes to be applied naturally and effectively when dealing with everyday problems.

Activity 9.1

Working in small groups:

1. Reflect on the quality of education as it exists in your country. Would you say that the basic education young people are receiving equips them to confront the problems posed by the advances of science and technology?

Give reasons for your answer.

2. Identify issues concerning the applications of science and technology (e.g. nutrition, use of natural resources, improvement of agriculture) which are of particular importance in your national setting.

Record your findings and report them to the group as a whole.

In order to understand how scientific and technological changes impact on basic education, it is useful to understand how science and technology affect us individually and as a society. It may also be helpful to consider the rationale for broadening basic education to include scientific and technological knowledge and skills essential for basic education.

Science is a quest for knowledge – a process of finding out, of exploring the world. It involves processes such as observing, posing questions, suggesting explanations, predicting, finding patterns and relationships, as well as manipulating materials and equipment effectively, to name but a few.

On the other hand, technology is concerned with the application of knowledge to the general purpose of fulfilling an individual, community or national need. Thus aeroplanes, insecticides, preserved food and computers are all direct products of technology. The know-how and creative processes (including designing) which use tools, resources and systems to solve problems, to enhance control over the natural and man-made environments, and to alter the human condition, are all characteristics of technology.

Scientific and technological knowledge have the potential for improving traditional ways of carrying out economic or life-sustaining activities. This knowledge can also bring about new possibilities for livelihood and offer the prospect of improved community life. Therefore it should be integrated into basic education.

'While some barriers have been broken down in some societies, research has shown that a large portion of the population is still precluded from active participation in science and technology. This is a severe loss both for the individuals and for society.' (*EFA Monograph I*).

Activity 9.2

Working in small groups:

Based on the situation as it exists in your country:

1. Identify aspects of individual or societal development that can be attributed to science and technology as a part of basic education.

2. Make suggestions for ways in which science and technology could be taught so as to make a more effective contribution to improving the quality of life of individuals and of society.

Write down your findings and report them to the group as a whole.

The Nature of Scientific and Technological Literacy

One of the most important aims of science and technology education is to produce a scientifically and technologically literate population that not only has knowledge and understanding of science and technology but can make good use of this knowledge in everyday life. Encouraging children to be inventive and to use initiative will help them to develop the confidence to think and make choices for themselves. This is a most important aspect of developing scientific and technological literacy.

Activity 9.3

Working in small groups:

1. Discuss:
   - ❑ Whether the science and technology education now being given in your schools is leading to real understanding and, if not, why not.

   - ❑ Whether science and technology activities are being set in a wider social and cultural environment.

2. Go through Reading 9.1, The Meaning of Scientific and Technological Literacy (page 17).
   - ❑ Discuss the meaning of scientific and technological literacy in the context of your own country/region.

3. Record your findings and report back to the group as a whole.

Comment

The world in which children and adults live is the subject matter for scientific and technological literacy and numeracy. An international conference held in Bangalore, India, in 1985 on 'Science and Technology Education and Future Human Needs' identified the following basic science and technology topic areas: health; food and agriculture; energy; land, water and mineral resources; industry and technology; the environment; information transfer; and ethics and social responsibilities. Clearly, knowledge in these areas has the potential for improving traditional ways of carrying out economic or life-sustaining activities. The topics, without exception, are of universal relevance, but each country must develop curricula suited to its own particular needs. Science and technology education should be integrated into basic education; the skills of reading, writing and calculating, for example, can be learned as well in the context of science and technology as in more conventional contexts.

Gender Issues in Science, Technology and Mathematics

'Basic education which includes scientific and technological knowledge and skills should permeate all boundaries. There should exist no disparities of gender, class, colour nor creed. However, prevailing societal attitudes with regard to male domination of science and technology get constant reinforcement from parents, teachers, and the career world.' (*EFA Monograph I*).

As mentioned in Topic 2, many girls unconsciously develop a negative attitude to science, technology and mathematics from an early age as a consequence of the influence of parental or family opinions expressed in the home, of cultural and social norms, and of the views of their peers (especially those of the opposite sex). Unfortunately, such attitudes are often reinforced by toys, games, textbooks, the media, curricula and examinations. Even the school system seems to favour the boys. In some situations teachers give more opportunities for boys to take an active part in science, technology and mathematics lessons; boys may not give opportunities for the girls to participate in practical activities.

A. Science Education

It is well known that in many countries efforts are being made to introduce science into basic education. Unfortunately, these efforts are often seriously hampered by the inadequate background and preparation of teachers and the lack of adequate materials. It is, however, encouraging to note that, in recent years, some countries in developing regions of the world have been responding to the challenges of science and technology by attempting to relate teaching in these content areas to practical problems in the community concerned with the environment, agriculture, health and other contemporary issues of development.

It is now widely recognized that the most effective and relevant science learning takes place through the process of solving problems that occur in, or are immediately 'connectable' to, the life of the learner, rather than in contrived situations in a classroom. For example, good science education and health education can go hand in hand. Learning in science must also be based on the pupil's own knowledge and experience so that he or she can achieve real understanding; this means beginning with familiar objects and phenomena encountered in his or her own world. In basic education it is quite possible, even with minimal apparatus, to embark on a programme of active enquiry, investigation and problem-solving which provides experience of ways of handling evidence. Children can be encouraged to observe, raise questions for further enquiry, generate hypotheses, plan their investigations, record and present results, interpret data, and so on. It is useful, whenever possible, for these activities to take place outside the classroom. Such an approach can promote the development of thinking pupils who will become thinking citizens.

The teacher's role will be to help children to express and test their own ideas, to reflect on evidence and to question the way in which they carry out their investigations. The materials have a central role in providing evidence as well as arousing curiosity in the world around. Teachers should encourage children to interact both with the materials and with each other as much as possible.

The term *process-based* describes learning designed to be consistent with the spirit and character of scientific enquiry. Such learning consists of experiences that engage the thinking, imagination and interest of learners as well as leading them to an understanding of day-to-day concepts. Process-based learning includes starting with questions about phenomena rather than with answers to be learned. It provides learners with direct practical experiences with the relevant tools, placing a premium on their curiosity and creativity, and frequently uses a team approach to learning. In this way pupils can become actively involved with the learning process and can be helped to develop appropriate attitudes and skills.

Activity 9.5

Go through Reading 9.2, Indicators of Process Skill Use: Some Examples (page 17).

Form six groups. Each group should take *one* of the main categories: observing; finding patterns and relationships; hypothesizing; raising questions; devising investigations; and communicating correctly.

From your own experience discuss successful and unsuccessful attempts to encourage these skills in children.

Record your findings and report back to the group as a whole.

Comment

Reading 9.2 did not give an exhaustive list of science process skills. Others include:

❑   *predicting:* going beyond the immediate evidence, using it to suggest what will happen at some future time;

❑   *designing and making:* using materials and scientific concepts so as to create articles and procedures for solving problems;

❑   *manipulating materials and equipment effectively:* being able to put into practice the manipulation of objects with the precision required to obtain useful results;

❑   *measuring and calculating:* using measuring instruments correctly and with appropriate precision as required by investigation.

One way of expressing the process skills is in the form illustrated below. The layout avoids any indication of a hierarchy or sequence in the use of process skills which, in practice, are closely linked. It also indicates that they are part of a whole, called 'scientific investigation', which is not listed as a separate skill – it is the amalgam of them all.

Process skills

The _content_ of science courses varies widely and it is important for each country/region/school to decide what are the key areas to be included in basic education. One such list of general headings is the following:

- ❑ the diversity of living things;
- ❑ the life processes and life cycles of plants and animals;
- ❑ the interaction of living things with the environment;
- ❑ types and uses of materials;
- ❑ air, atmosphere and weather;
- ❑ water and its interaction with other materials;
- ❑ light, sound and music;
- ❑ effects of heating and cooling;
- ❑ movement and forces;
- ❑ soil, rocks and the Earth's resources;
- ❑ the sky, solar system, planets and stars;
- ❑ magnetism and electricity.

(Adapted from: UNESCO Sourcebook for Science in the Primary School.

The items in this list are not intended as a framework for constructing a teaching scheme or programme. They just represent an example of the type of science content that is appropriate for inclusion in basic education.

One major objective of science education is to inculcate appropriate _attitudes_ in pupils. Some scientific attitudes that have been identified are: objectivity; curiosity; co-operativeness; creativeness; honesty; patience; and flexibility in thinking. Although they are of general value and not specific to science, their cultivation is central to effective science teaching (see Reading 9.3 page 19).

Activity 9.6

Reflect on your science curriculum and on your own method of teaching.

Working in small groups discuss the following:

1. Are the _topics_ for study _relevant_ to the pupils?

2. Would you say that your teaching of the curriculum is _process-based_?

3. Is your teaching helping to promote _scientific attitudes_?

Record your findings and report them to the group as a whole.

B. Technology Education

The role of technology is to use and apply knowledge in the service of humanity. Although in its development technology follows an autonomous path that does not always coincide with the pace or direction of the progress of science, there is no doubt that each interests and influences the other. Knowledge advances and science progresses through the use of technological appliances. For example, progress in knowledge is achieved through the use of telescopes and microscopes. Technology itself is changed as a consequence of the impact of scientific discoveries and theories, as has been the case in the field of semi-conductors and transistors.

While the large majority of people do not necessarily work directly with new technologies, they live and act in societies where technological and scientific innovation increasingly pervades almost every aspect of daily life. This makes the possession of certain basic technological knowledge and related social skills indispensable for all.

Comparatively little work has been done with regard to what technological activities are appropriate for basic education. One difficulty is to attach an agreed meaning to the term 'technology'. There is little precedent for teaching it and, as a subject area, it is little understood, often being confused with technical education such as metalwork, woodwork and needlework. It is necessary in every country for the relevant education authorities to specify the overall meaning to be attached to the term 'technological literacy' and then to relate this to the predominant technology areas in a particular setting. In a rural setting, the predominant technology is likely to be found in agriculture; in an urban setting, particular manufacturing processes may provide the focus of attention. Even the most technologically literate citizens do not understand all technologies. There are some that each person uses and should understand, such as those of simple tools. Although few will need to master in depth the technologies involved in the design and production of complex machines such as the motor car, television or radio, all should be educated in the use of basic technologies essential for the effective and safe use of the highly complex, sophisticated and often potentially dangerous machines and equipment which have already entered into the day-to-day life of ordinary people in virtually all parts of the world.

If the role of technology is to apply existing knowledge to solve human problems, it is evident that education in technology should cultivate problem-solving and creative processes such as design. Children enjoy working with materials and building models and should be encouraged to examine the properties of materials and use simple tools. They should also be encouraged to use their imagination and undertake 'creative problem-solving' in practical ways. In basic education this should apply particularly to problems and needs in and around the school and the home.

The 'processes' of technology have been much less clearly defined than those of science. It is generally agreed that a sequence, such as the following, is involved in much technological activity:

> identifying a problem > defining it clearly > considering possible solutions > investigating how to proceed > choosing a promising solution > preparing an appropriate strategy or design > making a device or proposing an action plan > evaluating the final outcome.

This is, of course, an over-simplification;different stages may overlap and the process may become more complicated.

Thus many of the 'processes' of science referred to earlier (such as observing, raising questions, designing and making, manipulating materials and equipment, measuring and calculating) also apply to technology. However, the major difference between science and technology is that technology leads to a _product_ or a _solution to a problem_, whereas science leads to the discovery of new knowledge. This means that the processes involved are not identical.

The role of the teacher in the problem-solving approach is essentially that of recognizing and creating learning opportunities, advising the pupils on experimental design, asking challenging questions and encouraging the children to do the same. He or she should also provide appropriate resources and facilities and advise on the evaluation of results.

The content of technology curricula needs to be decided on in relation to the particular circumstances of each country/region. In basic education, pupils should come to have some understanding of the historical perspective of technology – how it has extended our ability to change the world, both for good and for ill. It is responsible for great revolutions in agriculture, manufacturing, sanitation and medicine, warfare, transportation, energy transformation, information processing and communications, that have radically changed how people live. They should also become aware that technology-related issues are rarely simple and one-sided. Contending groups may have different values and priorities, may stand to gain or lose to different degrees and make very different predictions about what the future consequences of the proposed action will be.

Activity 9.9

Working in small groups, list at least five technologies that are important in your country/region, e.g. use of fertilizers, inoculation, preservation of food.

Outline how you would plan a lesson, or series of lessons, to help primary-school children understand one of these technologies using a creative, practical, problem-solving approach.

Technology in the Community

Technology impinges, in one way or another, on the lives of everyone. It may call on us to change old ways of doing things. Sometimes these changes conflict with local culture. Advances in technology should cause us to question ways of doing things so that we are able to function together in today's world.

Activity 9.10

Go through Reading 9.5, Technology in the Community (page 21).

Play the Tsotso stove simulation game. Decide among yourselves who will play the various characters.

What did you learn from playing the game?

What examples of technological conflicts of this kind can you think of from your own community (e.g. should a village install a biogas plant)?

C. Numeracy

Numeracy is an essential complement of scientific and technological literacy. In different cultural and economic contexts, numeracy takes on different shades of meaning. In general, it is not just a matter of being able to do sums and use formulae but also – and especially – of being able to use such skills to solve problems in everyday life. It involves interpretation: interpretation of timetables and schedules, of measuring instruments, of meters of various kinds, of representations which may take the form of plans and elevations, of circuit diagrams, or of graphs which commonly feature in printed media. In societies where modern technological tools such as calculators and microcomputers are in general use in the work-place, they should, if possible, also be used in schools. If simpler, non-electronic tools, such as the abacus, are used in the work-place, then their use should also be taught. Otherwise, pupils will not only be deprived of appropriate training but also become sceptical of the relevance of school to their later life and work.

Mathematics and Numeracy

Mathematics today permeates the whole of society and its role is one of increasing importance as its help is sought in handling situations which arise outside the field of mathematics itself. Mathematical methods, while continuing to be the essential tools of scientists and technologists, are no longer the prerogative of these groups. They are increasingly being used to analyse individual behaviour and to study attitudes and trends in opinion within society as a whole. Mathematics may be seen as an integral part of the cultural heritage of humanity and of the social, economic and technological environment, not only in its current form but also in those other forms which will certainly develop as a consequence of the widespread capability of fast calculation.

It is generally acknowledged that success in mathematics is judged to be a vitally important outcome of education systems throughout the world. This is so whether the school leaver requires knowledge and understanding of the subject to move further up the education system or for employment or simply as a 'life skill'. Mathematics is seen as 'useful' because it provides a particularly effective means of communication.

It is unfortunate that there are many people throughout the world whose mathematics lessons at school have not led them to see the subject in this way.

Far from seeing mathematics as a means of communication they avoid using it if at all possible. Indeed, they see the subject as one in which you have to follow rules even though you do not understand them; in which it is necessary to follow 'proper' methods to get 'exact' answers. Far too many people react with feelings of anxiety, helplessness, even guilt, when faced with the simplest practical situations such as reading transport timetables, doing household accounts, etc., which involve the use of elementary mathematical concepts.

If attitudes of this kind are to be remedied, ways must be found to teach the subject so that confidence is established in its use. Mathematics must be presented to _all_ pupils as a subject which can be used to solve practical and everyday problems. Children learn mathematics at different speeds. In the

nature of the subject, a move to another stage usually depends on an understanding of the previous one. The teaching of mathematics should take note of these facts if it is to build up confidence. If pupils 'lose the thread' of the teaching they become bewildered and lack trust in their own ability to even start using mathematics as a means of communication or as a method of solving problems.

Activity 9.11

Go through Reading 9.6, Mathematics and Real-life Problems (page 25).

Discuss in small groups how you, in your teaching, can help pupils to link what they learn in school mathematics with practical problems of weight, volume, area, etc., met with in everyday life.

Record your findings.

Mathematics for All

The issue of 'mathematics for all' has been of growing concern in the context of 'education for all'. As in the case of science, the question needs to be raised: what goals can reasonably be aimed at in attempting to provide mathematics for all? One suggestion put forward is that the particular goals of minimal mathematics education include having: (1) a sense of numbers; (2) the ability to quantify and estimate; (3) skills in measuring; (4) a useable knowledge of the basic facts; (5) the ability to select the appropriate operation to find a solution; (6) the ability to use a calculator to perform operations; (7) the ability to solve problems within the context of mathematical situations; (8) a 'money-wise' sense. There have been many other suggestions along similar lines.

Activity 9.12

Consider the goals for 'mathematics for all' listed above.

Divide into eight groups.

1. Each group should discuss all these goals in relation to your own country/region.

Are there others you would wish to add?

2. Each group should then take one of the goals and discuss how it can be reached through teaching linked with real-life situations.

3. Each group should write down its conclusions and report back to the group as a whole.

Comment

Applications of mathematics pervade the environment and every individual will encounter the use of mathematics in three broad contexts: in private life; in working life; and in the context of the social, economic and

political life of his or her national/local community. Some basic mathematical skills are needed simply to 'get by' in life – for example, the ability to decide whether wages are being paid correctly and whether buying and selling transactions are fair; the ability to estimate is constantly required in real-life situations (see Reading 9.7, page 25). Some jobs call for only modest mathematical skills, others may be immensely demanding. In the wider context of a person's social, economic and political life, an intelligent appreciation of what is 'going on' is scarcely possible unless a reasonable level of mathematical literacy has been attained. For example, any newspaper in any country is likely to contain graphs, charts and statistics. The reader needs to be able to understand these presentations and also to decide whether they are likely to be 'true' if he or she is to become an open-minded, yet critical, observer and participant in the wider life of the community and the nation.

D. Science, Technology and Mathematics in Out-of-School Education and in Non-formal Programmes

Throughout the world increased attention is being paid to the promotion of out-of-school activities and non-formal programmes in the fields of science, technology and mathematics. They include science clubs and fairs, and the popularization of science and technology through mass media, museums and science centres. They also include mathematical clubs and camps, competitions and quizzes. Such activities and programmes are important because they serve a wide variety of educational objectives related to a varied clientele. This includes schoolchildren (through enrichment activities which supplement formal science, technology and mathematics programmes), early school-leavers and drop-outs (in remedying gaps in scientific and technical knowledge and skills) and the general public (in promoting the understanding of scientific and technological developments).

The nature of _out-of-school_ science, technology and mathematics education should be such that it both complements and supplements school education. It should include those activities that are not easily provided at school, and also those that the constraints of the curriculum or time usually exclude. The co-ordination of in-school and out-of-school experience can help children to take on roles which they have to play in society after leaving school. In many countries there is a wide variety of out-of-school activities relating to science, technology and mathematics education. They include:

- ❏ visits to industry and field trips organized by the school;

- ❏ field- or environmental-studies centres which children can attend, with their teachers, for short periods in school terms or in the vacation;

- ❏ school farms, where children can study animal and crop development;

- ❏ science, technology and mathematics fairs, exhibitions and clubs which encourage children to collect together experimental work relating to projects. These science exhibits can lead to displays in regional and national science fairs or science exhibitions;

- ❏ mathematics competitions, puzzles and quizzes in local or national newspapers.

In all these activities, the teachers should be involved as co-ordinators, facilitators or advisers. Specialists should also be involved – for example, qualified agricultural extension experts, directors of field-studies centres and scientific advisers on project work. A proper structure for out-of-school activities should be provided and further guidance should be made available through case studies and country reports.

Activity 9.13

Discuss in small groups any out-of-school science, technology and mathematics education activities with which you have been involved personally, either as a pupil or as a teacher.

Which have been the most effective and why?

Discuss ways in which such activities could be further developed in your own neighbourhood/region.

What might be your own contribution?

Record your conclusions.

Public understanding of science, technology and mathematics for youth and adults takes many forms. The mass media (radio, television, newspapers and magazines) reach the greatest number of individuals of all ages and from all walks of life. They are an excellent means of making science, mathematics and technology accessible to all. They can be a valuable way of helping teachers extend their own knowledge of science, technology and mathematics and of their applications and uses. However, unlike established educational programmes, articles and radio and television programmes must attract their audiences. A learning programme which is not attractive may be switched off, an article that is difficult to understand may be put aside.

Radio is intended for all. It does not require an extensive infrastructure for its broadcast or reception. Since the listener does not need to be literate, the radio can speak as much to the most underprivileged sector of the population as to the most erudite. Like a good storyteller, the radio has a considerable potential for evocation and stimulation of the imagination. Science and technology reporting can benefit from this attribute. Equipped with a tape recorder only, a radio journalist can bring into the home a picture of scientists working in a wide variety of situations; he or she can take the listener on a visit to a factory, to an agricultural centre, or an astronomical observatory. Educational radio has also been developed as a valuable adjunct to formal education (see *Education for All: Purpose and Context, Monograph I*, p. 42).

Television provides a window on the world through which viewers can enter places not normally open to them and meet people they would not otherwise be able to meet. The existence of a picture enhances television's ability to transfer the viewer to the scene of action. He or she may feel that they are actually participating in major scientific events. The viewer may also become the doer. Through the television image, processes can be visualized and

demonstrations can be backed up by experiments, models and animated sequences. While the radio can broadcast the voices of scientists and technologists, television can actually show them at work. Educational television, which has developed alongside public and commercial television, can be more didactic and stricter in presentation. Many countries exploit this potential and a growing number are using or experimenting with educational television by satellite (see also Topic 4).

Newspapers and magazines. The specialist correspondents of newspapers and magazines play a key role in bringing scientific, technological and mathematical knowledge to the general public. It is important for them to be aware of, and sensitive to, the very wide range of age-groups, of knowledge and of interests of those they cater for. The popular press can make use of a wide range of games and contests related to science and technology in order to stimulate interest: puzzles, riddles, mathematical problems, and brain teasers of many kinds may be featured. Magazines for children which present science and technology problems related to the local environment and which provide links with health, nutrition and population issues are especially valuable and should be developed and widely disseminated.

Science and technology museums and centres. These are a valuable means of providing information and education for the general public. Many countries have now established science and technology museums on a very comprehensive scale. One example is the 'Cité des Sciences et de l'Industrie' which opened its doors in Paris, France, in 1986. The three main aims of this project are: (1) to give recognition to the importance of science in present-day technological and industrial achievements; (2) to facilitate the access of all sections of the public to scientific knowledge, and (3) to illustrate not only the idea of progress but also the associated risks. Science is viewed in the context of industrial activity and technology. Modern science and technology museums are designed to educate and popularize through participatory experiences in which the visitor can operate models and perform a variety of scientific experiments on them. Many museums put on programmes of lectures and demonstrations at specified times for the public in general or for schoolchildren on out-of-school visits. The science and technology museum has to reconcile its serious educational task with the need to offer amusing and entertaining displays. This is a challenge to the museum staff to awaken the curiosity of visitors by presenting exhibits in an attractive way but also one which will hold or stimulate their interest by using visual aids and other techniques so that they will really grasp and assimilate the intellectual content of what they are seeing.

In some countries, where the majority of the population live in villages, use is made of mobile science and technology exhibitions. These are set up by a central museum and travel around the country or region. In India, for example, mobile exhibitions of the Industrial and Technological museums in Bangalore and Calcutta have made a considerable contribution to the task of bringing greater knowledge and understanding of science and technology to village life.

Readings

Reading 9.1
The Meaning of Scientific and Technological Literacy

Many attempts have been made to describe and explain 'scientific and technological literacy'. One statement is:

☐ the capacity to function with understanding and confidence, at appropriate levels, in ways that bring about empowerment in the modern world and in the world of ideas.

The capacity so described might be fostered by:

(a) the acquisition of a core of knowledge – facts, concepts, skills – which might be relatively culture-dependent;

(b) experience and understanding of the ways in which scientists and technologists work, e.g. how scientists make and validate their knowledge (this aspect might be much less culture-dependent than the above);

(c) an understanding of the cultures of the scientific and technological enterprises; their values, attitudes, assumptions; their organizational structures of control; and their limitations.

Source: Project 2000+ International Forum on Scientific and Technological Literacy for All, Final Report, Paris, UNESCO, 1993.

Reading 9.2
Indicators of Process Skill Use: Some Examples

Observing

Evidence, in the form of a record or discussion, of children:

☐ using the senses (as many as are safe and appropriate) to gather information;

☐ identifying differences between similar objects or events;

☐ identifying similarities between different objects or events;

☐ noticing fine details that are relevant to an investigation;

☐ recognizing the order in which sequenced events take place;

☐ looking for patterns that may exist in observations.

Finding patterns and relationships

Evidence, in the form of a record or discussion, of children:

- ❑ putting together various pieces of information (from direct observation or secondary sources) and inferring something from them;

- ❑ using patterns or relationships in information, measurements or observations to make predictions;

- ❑ identifying trends or relationships in information;

- ❑ realizing the difference between a conclusion that fits all the evidence and an inference that goes beyond it.

Hypothesizing

Evidence, in the form of a record or discussion, of children:

- ❑ attempting to explain observations or relationships in terms of some principle or concept;

- ❑ applying concepts or knowledge gained in one situation to help understanding, or solve a problem, in another;

- ❑ recognizing that there can be more than one possible explanation of an event;

- ❑ realizing the need to test explanations by gathering more evidence.

Raising questions

Evidence, in the form of a record or discussion, of children:

- ❑ asking questions which lead to enquiry;

- ❑ asking questions for information;

- ❑ asking questions based on hypotheses;

- ❑ realizing that they can find out answers to some of their questions by their own investigation;

- ❑ putting questions into a testable form;

- ❑ recognizing that some questions cannot be answered by enquiry.

Devising investigations

Evidence, in the form of a record or discussion, of children:

- ❑ deciding what equipment, material, etc., is needed for an investigation;

- ❑ identifying what is to change or be changed when different observations or measurements are made;

- ❑ identifying what variables are to be kept the same for a fair test;

- ❑ identifying what is to be measured or compared;

- ❑ considering beforehand how the measurements, comparisons, etc., are to be used to solve the problem;

- ❑ deciding the order in which steps should be taken in the investigation.

Communicating effectively

Children:

- ☐ using writing or talking as a medium for sorting out ideas or linking one idea to another;

- ☐ listening to others' ideas and responding to them;

- ☐ keeping notes of actions or observations;

- ☐ displaying results appropriately using graphs, tables, charts, etc.;

- ☐ reporting events systematically and clearly;

- ☐ using sources of information.

Source: Science Teacher Training for Process Based Learning, Paris, Commonwealth Secretariat/ UNESCO, 1987.

Reading 9.3
Helping Children to Develop Scientific Attitudes

Attitudes refer to generalized aspects of behaviour and are identified in the patterns of ways in which people act and react in various situations. One instance of someone being willing to change his or her mind in the face of evidence is not a sufficient basis for judging them to be 'open-minded', but if this happens quite regularly it might well justify such a judgement.

Certain general characteristics of attitudes suggest ways in which they can be fostered.

1. Attitudes are not things that children can be instructed in; for they are different from knowledge and skills. They exist in the way people behave and are transferred to children by a mixture of example and selective approval. Rather than being 'taught', attitudes are 'caught'. One important way in which teachers can help children to develop attitudes is by *setting an example*.

2. Attitudes develop from what is approved and what is disapproved. Thus it is important to reinforce the signs of desired attitudes shown by children by praise and approval and similarly to express disapproval of negative attitudes. If this is done consistently it will become part of the classroom climate and children may begin to reinforce the attitudes for themselves and for each other.

3. Attitudes show in willingness to act in certain ways. For children to develop these attributes there must be opportunities for them to exercise choice. If behaviour is closely controlled by rules and procedures and if children are always told what to do and think, there will be little opportunity for them to develop and give expression to their own attitudes. If children are never encouraged to reflect critically on their work, they will not be likely to develop a willingness to review procedures critically. It is most important, therefore, for teachers to *provide children with opportunities to exercise choice*.

4. Attitudes are highly abstract and thus difficult to discuss with children. This is why attitudes have to be encouraged by example and selective approval. However, as children become more mature they begin to be able to reflect on their own behaviour and motivations.

Adapted from: UNESCO Sourcebook for Science in the Primary School, Paris, UNESCO, 1992.

Reading 9.4
Is Science being Learned here?

If you walked into a classroom, how would you recognize that the class or a group were engaged in a science activity as opposed to another kind of activity?

Here is an attempt to answer the question in two stages. In the first place situations which provide _opportunity_ for learning science can be recognized. Such situations are an important starting-point but may or may not be followed up, so the second part of the answer suggests the indications that the science in a situation is being _developed_.

The children have _opportunity_ for learning science where they are:

- ❑ handling materials, living and non-living;
- ❑ designing, making or manipulating apparatus using a variety of materials, including junk items;
- ❑ moving around freely and finding the materials they need;
- ❑ discussing their work with each other or with the teacher;
- ❑ busy doing things which they feel are important;
- ❑ trying to work out for themselves what to do from step to step, and not expecting to be told what to do;
- ❑ puzzling over a problem;
- ❑ comparing their ideas or observations with those of others.

The science in a situation is being _developed_ where children:

- ❑ have a clear idea of what they want to find out, investigate or observe;
- ❑ take the initiative in suggesting what to do and how to set about it;
- ❑ try out ideas 'to see what happens';
- ❑ observe things closely – perhaps watching, listening, touching, smelling;
- ❑ try different ways of approaching a problem;
- ❑ classify things according to their properties or characteristics;
- ❑ make some record of what they find out or observe;
- ❑ use instruments for aiding observation or measurement;
- ❑ devise or apply tests to find out what things do;
- ❑ make predictions of what they expect to find or happen;
- ❑ look for evidence to support the statements they make;
- ❑ try to quantify their observations;
- ❑ confirm their findings carefully before accepting them as evidence.

Source: Science Teacher Training for Process Based Learning, Paris, Commonwealth Secretariat/ UNESCO, 1987.

Reading 9.5
Technology in the Community

Simulation Game

Introduction of new technology (Tsotso stove in Tamutsa village)

In a few minutes all the players are going to sit around a table and discuss together. They are going to discuss their feelings about a certain problem. Each player is going to pretend to be a certain type of person and speak just as strongly as that person would in real life.

Those taking part are:

- ❑ The Member of Parliament
- ❑ A representative of the Forestry Department
- ❑ A teacher
- ❑ A headman
- ❑ An old man
- ❑ Housewife I
- ❑ Housewife II

The problem

Tamutsa village is one of the areas in Mashonaland East Province, Zimbabwe, which has been extensively deforested. People in this village are walking long distances in search of firewood.

The Member of Parliament has expressed concern over this problem and sought the advice of the Forestry Department. With its help he is seeking to bring in new technology to Tamutsa village in the form of a Tsotso stove. This is a stove which uses very little firewood, or cow dung, for cooking.

The Member of Parliament

Your role:

You come from the local community and represent it in Parliament. You have a secondary-school education and are able to perceive problems accurately within the community. You actively seek the improvement of the conditions of life for the people living in your constituency.

You were convinced when the representative of the Forestry Department suggested that a Tsotso stove might be an answer to the problem of deforestation facing the area around Tamutsa village.

As an MP your main role here is to convene a meeting, having brought in the expert from the Forestry Department. You will introduce the problem, have the Forestry expert introduce the topic and then get the members of the community to discuss the issue.

You want to find the best solution to the problem. You feel that the Tsotso stove is a possible solution but you are open to ideas from your constituency.

Representative of the Forestry Department

Your role:

You hold a degree in forestry and are about 40 years old. You have worked for the Forestry Department for about fifteen years and hold a fairly senior position. You are well-versed in the problems of deforestation. You know that the people must stop cutting down all the trees for firewood and must be encouraged to grow new forests. You have seen the research on how deforestation causes soil erosion and degradation, changes in weather patterns, and affects animal life. You know well the great length of time needed for trees to grow to maturity. You see many advantages in having forests and have studied the advantages of indigenous trees over exotic trees. You love the beauty of forest scenery.

Your attitude:

You strongly favour the introduction of the Tsotso stove as it will be a great saver of the remaining forests and will allow for reforestation programmes to be introduced and succeed.

You support the stove because:

❏   the stove uses little firewood and can even use cow dung;

❏   deforestation is causing severe soil erosion in the area;

❏   weather patterns are being affected;

❏   wildlife is fast disappearing;

❏   indigenous trees need to be preserved.

You feel that we must adjust to the changing times and circumstances or we will not even survive as people.

Your part is very important. Try to convince the others of the importance of accepting the Tsotso stove. Be able to adjust and suggest alternatives which will make the stove acceptable to the people. Be able to consider other alternatives which might prove to be even more acceptable, if necessary.

Teacher

Your role:

You are a teacher in the community. You have taught for about five years at a local school. You are well-respected in the community and people often come to you for advice. You consider the Tsotso stove to present a big advantage over the present traditional fire. You would like to have a Tsotso stove for your own use. You do not feel that we should cling to traditions but must move with the times.

You strongly support the introduction of the stove.

- ❑ you plan to use one yourself;

- ❑ you note that it will conserve energy (heat will not be lost to the surroundings);

- ❑ you do not believe it is necessary to preserve the traditional fireplace in order to preserve culture.

Since you are a community leader your role is crucial. You must try to convince the others that the Tsotso stove should be adopted. But you must also be flexible and able to adjust and change your mind if reasonable arguments against the Tsotso stove are given.

Headman

Your role:

You are an enlightened headman. You see advantages of using the Tsotso stove but you are concerned about how it will fit into traditional village life.

Your attitude:

You have not quite made up your mind.

The advantages you see are:

- ❑ the stove will save our trees;

- ❑ we will have trees for shelter, building and hunting in the bush.

You are worried because:

- ❑ it will result in breaking family ties as there might be no more stories around the fire;

- ❑ the traditional fire is the symbol of unity.

You are open to being convinced by arguments of the others present. You lean a little toward staying with the traditional ways.

Old man

Your role:

You are an elderly man worried about the erosion of tradition and as such are opposed to the Tsotso technology. You feel that the Tsotso stove will erode the traditional life with which you are familiar and comfortable. You do not like these new modern ideas that are coming from the experts who have gone to school and are trying to act like Europeans and are forgetting the ways of their fathers.

Your attitude:

You are opposed to the introduction of the Tsotso stove. The ways of our fathers must be preserved.

You ask:

- ❏ what will I do in the evenings? I usually sit around the fire and talk to the children;
- ❏ who will cut the firewood into small pieces for these little stoves?
- ❏ we also use fire for making tools – now how will we be able to do that?
- ❏ we use the fire for beer brewing – it won't taste the same if we brew it on a Tsotso stove.

You try to convince the others that the stove does not fit with traditional cultural ways and as such should be rejected. You will only be convinced to accept the stove if you can be shown that the traditions can still be carried on even if in a somewhat new way.

Housewife I

Your role:

In this discussion you will play the part of an uneducated traditional housewife who values traditional culture and resists change. You prefer cooking on the fire using clay pots as you have always done.

Your attitude:

You are opposed to the Tsotso stove and support the idea of the traditional fire.

- ❏ the three-legged pot can only be used with the traditional fire and not with the Tsotso stove;
- ❏ clay pots need to be supported by three stones and cannot be used on a Tsotso stove;
- ❏ the old fireplace is big and you can use several pots at one time but with the Tsotso stove you can only cook with one pot at a time;
- ❏ the fire lasts longer;
- ❏ you can use the embers from the fire for ironing;
- ❏ the Tsotso stove will cost money and we don't have enough money to buy one;
- ❏ the firewood is there, we just have to go to the forest for it;
- ❏ we like to roast mealies (maize) and sweet potatoes on the fire.

You are convinced that the traditional fire is better. You do not want to change and try to convince the others that the Tsotso stove is not a good idea. You may change your mind if the discussion convinces you.

Housewife II

Your role :

You are a modern educated housewife. You are a busy nurse in the community. You work long hours and have little time for gathering wood and waiting for a fire for cooking.

Your attitude:

You are strongly in favour of the Tsotso stove. You see it as a work saver and time saver, and also safer than the fire.

You advance the following arguments:

- ❏ with the traditional fire you have to get up early in the morning in order to prepare breakfast for the family.
- ❏ the stove:

  - is faster – it boils water quickly;
  - is more convenient;
  - uses less fuel and thus saves collecting firewood - you have no time to fetch firewood;
  - helps to save the forests;
  - is cleaner;
  - is less dangerous for children;
  - gives you more time for other activities.

You should try hard to convince the others that the Tsotso stove would be very helpful to the mothers of the village and would be safer and healthier. You may change your mind if others present convincing enough arguments.

Reading 9.6
Mathematics and Real-life Problems.

A very significant share of classroom time is spent on mathematics, that is to say, on the skills associated with mathematics. But mathematics is meaningless unless it has a context. However, the transposition of basic mathematics concepts into real life problems is not easily achieved. A recent study was conducted with some vocational students in the city of Recife (Brazil). The students learned the concepts and methods of calculating the volume of simple geometrical forms. They also engaged in practical projects in the workshops. In one of these, students were expected to build beds and had to order the wood in the exact quantity required. Given the measurements of the parts of each bed, they had to calculate the volume of each and add them to find the total lumber requirements in cubic metres. In fact, this was a direct application of the formula they had learned in school. However, the students had difficulty in connecting the two sets of problems. They could not see the similarities between the school-book reasoning and what they were being asked to do in the workshop. A volume formula is learnt in school. A quantity of lumber is handled in a workshop. In the students' minds the two are not related! The concepts involved in comparing areas and volumes were known to the scholars of ancient Greece; today they still need to be mastered and used across the breadth of the labour force. Modern society is asking more and more people to be conversant with such simple exercises in abstraction and to be able to apply them in concrete situations.

EFA Monograph I.

Reading 9.7
Estimation

Teachers should incorporate estimation into many areas of the mathematics programme. Similarly, it should also be included in science and technology education activities. In addition to computational estimation, an estimation problem may involve one, or more than one, of the following:
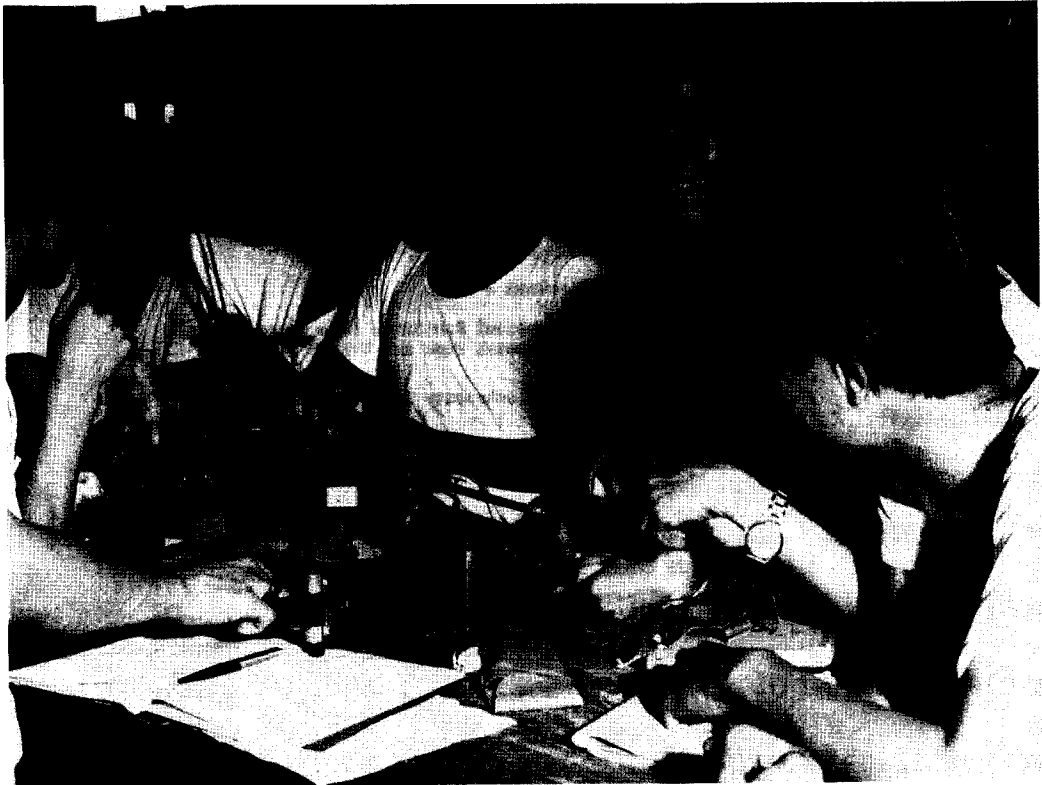
❑ *Meaningful accuracy*

This shows pupils that they should judge the degree of accuracy required according to the situation and circumstances. Complete accuracy is not always possible nor, indeed, necessary.

❑ *Estimation in everyday life*

Activities of this type are designed to develop the ability to estimate a variety of measures in the pupils' environment. This kind of estimation is also used in problem-solving, and especially in judging the reasonableness of the results obtained.

❑ *Estimation in measurement*

Without using measuring instruments, pupils should be able to appreciate the difference between absolute and relative errors, when estimating lengths and areas, for example.

❑ *Algorithmic estimation*

Pupils can develop the ability to estimate quantities by constructing a suitable algorithm/formula and by taking into account missing data – data needed for the computation but not appearing in the statement of the problem.

❑ *Checking the reasonableness of results*

The aim of this estimation is to show that not every problem must (or even can) be solved by using a standard algorithm and that not every problem has a unique answer. However, the answer has to be reasonable.

Chisman, D.G. (ed.). 1986. *UNESCO Source Book for Out-of-School Science and Technology Education*. Paris, UNESCO.

Harlen, W. (ed.). 1983. *New Trends in Primary School Science Education, Vol. I.* Paris, UNESCO.

Harlen, W. (ed.). 1985. *The Training of Primary Science Educators – A Workshop Approach, Science and Technology Education Document Series, No. 13*. Paris, UNESCO.

Harlen, W. (ed.). 1987. *Primary Science Teacher Training for Process Based Learning*. London, Commonwealth Secretariat/UNESCO.

Harlen,W.; Elstgeest, J. 1992. *UNESCO source book for science in the primary school*. Paris, UNESCO.

Lewis, J.L. (ed.). 1987. *Science and Technology Education and Future Human Needs*. Oxford, Pergamon Press (for the ICSU Press).

Lockard, D.J. (ed.). 1973. *New UNESCO Source Book for Science Teaching*. Paris, UNESCO.

Mcleod, S.; Mills, G. 1986. *The Teaching of Science and Technology in an Interdisciplinary Context, Science and Technology Education Document Series, No. 19*. Paris, UNESCO.

Morris, R.W. (ed.). 1984. *Studies in Mathematics Education, Vol. III: The Mathematical Education of Primary School Teachers*. Paris, UNESCO.

Morris, R.W. (ed.). 1987. *Studies in Mathematics Education, Vol. VI: Out-of-school Mathematics Education*. Paris, UNESCO.

UNESCO. 1986. *The Place of Science and Technology in School Curricula: A Global Survey*. Paris, UNESCO.

UNESCO. 1986. *Mathematics for All: Science and Technology Education Document Series, No. 21*. Paris, UNESCO.

UNESCO. 1993. *International Forum on Scientific and Technological Literacy for All, Final Report*. Paris, UNESCO.

Whittle, P.; Gray, B.; Hodzi, R.; Manana, L. (eds.). 1993. *The Harare Generator: Innovative Ideas and Techniques for Science Educators in Africa*. Cheltenham, International Centre for Conservation Education (for the ICSU Press).

Education and the World of Work

UNESCO/K. Stephen

TOPIC 10

CONTENTS

Education and the World of Work

Introduction

This topic focuses on the utilitarian value of education. It explores the avenues through which basic education can be linked to the world of work. It can be argued that education, of all kinds, is invariably pursued not just for its intrinsic value but because it is also an effective tool for the attainment of personal and societal goals. On the other hand, schools, especially in the developing world, experience high drop-out rates. Pupils lose the motivation to learn because schooling is more often than not a ritual in imbibing dry, hard, knowledge that bears scant resemblance to the current needs of the learner. This foreignness of the knowledge to the real-life needs of the learners results in poor pupil attainment at school and consequently in incalculable losses of national resources.

The traditional relationship between the school and the world of work, in which school education led to employment, has, over the last few decades, come under increasing strain as a consequence of escalating school-leaver unemployment. The problem is particularly acute in those developing countries where high population growth rates are accompanied by declining industrial demands for labour. In such situations the school system has to accept that a significant proportion of school-leavers may not find employment. The enterprising, among the unemployed, will join the growing urban informal sector and some will find non-agricultural work in rural areas.

Apart from preparing children and adults for the science- and technology-driven industrial world and for the world of agriculture, the same education system must also prepare its clientele for survival through self-employment. What then are the skills and attitudes required for survival in the informal sector? What teaching and learning approaches best develop these skills and attitudes? Are the implications for education, of the new technological industrial work-place, on the one hand, and those of the world of unemployment, on the other, different and mutually exclusive? Education planners and teacher trainers must address these questions if basic education, as the foundation stone of subsequent learning in life, is not to become a costly and irrelevant commitment of national resources.

It is therefore incumbent on all concerned with education to take positive steps to promote, at all levels, purposeful education. As a teacher you are in the front line in implementation of educational innovations and your understanding and support for the issues involved in linking basic education to the world of work is therefore of critical importance.

Learning Outcomes

By the end of this topic you should be able to:

❑ examine knowledgeably and participate in the debate on linking education to the world of work;

❑ recognize the importance of placing learning within the context of pupils' lives;

❑ identify ways of forging closer links between school education, on the one hand, and industry, commerce, the public-service sector and agriculture, on the other;

❑ recognize the factors that hinder the promotion of school/community partnerships in education and identify ways of surmounting them;

❑ have an enhanced appreciation of the need to link education to the world of work through the teaching of lifelong learning skills.

Content

A. Education and the World of Work: Differing Approaches

You are probably aware of the ongoing debate about the proper place for vocational training. Should it be a responsibility of school education to develop skills, knowledge and attitudes that are transferable to any future vocation? Should specific vocational training be integrated into school education or should they be separate?

The arguments put forward by those favouring the integration of vocational training into school education revolve around economic prudence and assert that it is an uneconomic use of resources to separate general education and vocational education. Against this it is argued strongly that in our age of rapid technological change, school-based vocational training may still be teaching already outdated technology and that those who provide it (the teachers) do not themselves work in industry. In the same vein, it is also argued that specific vocational skills taught in school, more often than not, lack transferability and in any case are likely to have become obsolete by the time the student enters the world of work. Thus, it is claimed, school-based vocational education does not represent an economic use of resources.

The second school of thought, based on the philosophy of lifelong education, has a different approach to the relationship between education and the world of work. To be really effective, education must be perceived by the learner to be relevant to his or her current needs as well as providing an adequate preparation for subsequent learning, training, and the retraining which will be required to respond to new technological advances. The positive role of education in its links with the world of work is seen as focusing on teaching the learner how to:

❑ understand, rather than learn specific chunks of knowledge considered appropriate by adults;

❏   listen well;

❏   develop problem-solving skills;

❏   think creatively;

❏   develop self-esteem;

❏   develop teamwork skills.

Activity 10.1

Consider any job that you know well. Make a list of the tasks undertaken in execution of the duties of that job.

For each task, list the knowledge, skills and attitudes that you think are acquired from:
❏   school education;

❏   job training.

Comment

If you have done this activity thoroughly you will have listed quite a few skills and attitudes, and some of the knowledge that a person acquires from school and brings to any job. Your list will probably include skills in literacy and numeracy and the attitudes of perseverance and team-spirited. These are fundamental to all human social and economic activities. Therefore, by offering education through methods that promote them, we give pupils relevant preparation for adult life. We link education to the world of work.

Activity 10.2

Discussion of difficulties of school-based vocational training.

Team up with colleagues and discuss the following:

1. How can an education system attract and retain appropriately trained technical personnel without creating problems for itself from the non-technical teachers?

2. What are the cost implications of equipping schools with appropriate tools and machines for purposeful training? How will schools keep abreast of technical changes in industry and business in order to keep their training relevant?

3. Do the schools in your country have appropriately trained staff who can identify career aptitudes of pupils before channelling them into specific lines of training?

4. Do the schools in your country possess the necessary flexibility to swiftly change their programmes in response to the changing needs of the labour market?

Comment

You will probably have realized through your discussion that there are serious problems in linking education to the world of work through vocational training. You may even have raised more questions than those listed for this activity. Studies have led to the conclusion that human resources forecasting is, at best, hazardous, and to use it as a basis for the provision of school-based vocational training would seem to be inadvisable, particularly given the inability of schools to respond rapidly to changing labour-market needs.

B. Promoting Links between Education and the World of Work

The philosophy of lifelong education, on which current thinking on linking education with the world of work is based, sees the schools as an integral part of society and as only one source of learning. Learning experiences are also provided by the outside community. Teaching and learning methods also change. Briefly, the philosophy of lifelong education has implications for:

- ❑ the curriculum;
- ❑ teaching and learning methods;
- ❑ the environment of the school;
- ❑ assessment and evaluation.

The Curriculum

Lifelong education requires curriculum content to be related to the life experiences of the learner. Content has to be seen by the learner to be relevant. Therefore, it is for curriculum development to be more decentralized and less prescriptive. The supporting resources, such as textbooks, also need to change and be designed in such a way that they promote learning by discovery and other appropriate learning skills such as critical thinking and reflection.

Activity 10.3

Analysis of Current Mathematics Textbooks: Searching for Relevance

Select any five topics from the mathematics textbook of the class you teach. For each topic, study the work and activities suggested for the pupils.

Do the problems and activities promote independent learning by the pupils? Do they relate to their social, economic and cultural environment?

Select one task and adapt it to the realities of the pupils' lives.

Do you think that such adaptations will increase the pupils' interest in learning the subject?

Comment

You will probably have noticed that the subject matter in many school textbooks may not be well suited to the socio-economic backgrounds of the pupils. The activities either described or suggested in the books are removed from the realities of their experiences. Consequently, such textbooks fail to engender high-level motivation in the pupils.

You will probably have also noticed that pupils taught through approaches based on self-directed learning may be better motivated than those taught using traditional teacher-centred approaches. They are also likely to achieve more meaningful learning.

Teaching and Learning Methods

The teaching and learning methods, perhaps more than anything else, will distinguish the new philosophy of education. As a teacher, you need to realize that your greatest task is to develop in your pupils the skills of learning and your greatest challenge is to organize the learning environment so that it promotes desirable learning. Teachers are called on not only to place learning within the context of pupils' lives but also to create learning situations in which pupils search for knowledge. Such active participation of the learner will give relevance to knowledge gained and develop lasting skills of learning (see also Topic 3).

The Environment of School

The quality of a school's environment has a significant input into the learning that goes on in the school. A school should be a microcosm of the society in which it is set. For the school to provide the kind of education advocated here, there must be close links between it and its environment. The teachers must know the environment so well that they can identify the resources in it that can be used as sources of learning. The school must also participate in the social and economic activities of its community. Such close relationships provide the links between education and the adult world of work (see Reading 10.1, page 7).

Comment

A school/community partnership in education, such as that in Reading 10.1, offers many benefits to pupils. They participate in solving real community problems. This is highly motivating. It shows them the relevance of what they learn in school to the needs of their communities and to the world of work at large. Pupils also come to realize that organized learning does not take place only within the confines of the school but in society at large.

Assessment and Evaluation

Assessment of learning in primary schools in many parts of the world is done by objective testing of a set content. Such testing has tended to ignore skills such as interpersonal skills and perseverance/motivation and problem-solving skills which are arguably more important for the future lives of the pupils than knowledge of specific subject matter. If education is to develop the skills discussed above as the best ways of linking education to

the world of work, teachers' assessment of pupils' work has to change. Pupils' performance in school should be determined more by continuous assessment than by summative assessment. The challenge to curriculum developers is to devise assessment procedures that can reliably assess pupils' development in problem-solving skills, motivation to learn, creativity and interpersonal skills, as well as knowledge of core subject matter (see also Topic 3).

Activity 10.4

Group Activity

1. Analyse the teaching approaches used in your school. Identify those most closely associated with the ideals of lifelong education and those that help to promote it.

2. Discuss the practical constraints to the implementation of the philosophy of linking education and the world of work.

3. Assess the extent to which your school relates to your community in the provision of education. Identify areas of linkage that you can improve and suggest practical ways of extending the school/community partnership in education.

In conclusion, carry out a Panel Discussion on integrating the schools into the community.

Activity 10.5

Go through Reading 10.2. Decide who will play the different parts and enact the panel discussion.

What are the implications of this discussion for your school?

Readings

Reading 10.1
School/Community Partnership in Education

During the 1992/93 rainy season in Zimbabwe, there was an outbreak of cholera that killed many people in both urban and rural areas. The Ministry of Health and Child Welfare launched a vigorous campaign to educate people in how to minimize the risk of contracting the disease. One of the pieces of advice the ministry gave was that people should desist from the traditional practice of washing hands in a communal dish before taking a meal, particularly at gatherings such as weddings and funerals. People were advised to wash from running water; where piped water was not available, they were advised to use cups to pour out the water as people washed their hands. A very laborious practice indeed! What could be done?

In such a situation schools and their communities can join in the search for solutions. An inter-school competition can be organized so that schools, through their teaching of subjects such as craft and design or design and technology, can design a device that could provide a solution to the problem. An appropriate design brief should be worked out in consultation with the community. One condition would be for the design to use low-cost materials and another for it to be one which could be easily understood and fabricated by rural craftspeople.

The winning solution would then be funded for production using the technological skills available in the community.

Reading 10.2
Panel Discussion: Integrating the Schools into the Community

Objectives

1. To develop awareness in classroom teachers of the benefits of using outside-school resources for teaching.
2. To develop awareness in the local community of the role it can play in education.
3. To develop awareness in the community of the role the school can play in the affairs of the community.

Panellists

- ❏ The school Head
- ❏ The Director of the community library or community centre
- ❏ A schoolteacher
- ❏ A representative of the local chamber of commerce or industry
- ❏ A community leader

The purpose of the discussion is to examine ways in which the school can use the knowledge and experience of local people, and in which it can integrate itself into the locality in order to develop the relevance of its education and promote the philosophy of lifelong learning.

Roles

School Head

Welcome the participants and thank them for coming to the meeting. Explain why you believe that it is important to link the school more closely to the social and economic life of the local community. Invite those who have come to the meeting to join with the school in providing education which is truly relevant.

Director of library or community centre

Welcome the idea and say what the library/centre could do. Point out the implications for funding and staffing. For example, you could set up a special children's section, show videos once a week and hold competitions for the children.

Schoolteacher

Express support for the idea and recognize its potential to contribute to meaningful learning. However, you have a number of worries. What will it mean for timetabling, syllabus completion, examinations and pressure of the next level of education on primary education?

Business/industry representative

You have reservations with regard to small boys and girls coming on visits to factories and work-places. They are a safety risk, too young to understand what is going on, and their presence will disrupt production. Having been convinced by the school Head and the teacher you reluctantly agree to participate.

Community leader

Applaud the move to integrate the school into its community. The move has been long overdue. Participation will enable the community to provide input into the cultural and civic education of children. The community would also like to see the school participate, through its education activities, in helping to solve community problems.

Agreement to implement the proposed integration should lead to the formulation of action to be taken. Would it, for example, be feasible and worthwhile to:

- ❏ invite speakers from the community and industry to visit the school?

- ❏ participate in special school afternoons at the library/community centre?

- ❏ organize industry weeks with visits to local business and industrial enterprises?

Are there other activities which would be especially appropriate in your local situation?

Bibliography

Using the following as a start, make an effort to read as widely as you can. This can only help to enrich your understanding of current trends in linking education to the world of work.

Forster, P. 1977. The Vocational School Fallacy In Development Planning. In: J. Karabel and A. H. Halsey (eds.), *Power and Ideology in Education*. New York, Oxford University Press.

Narman, A. 1985. *Practical Subjects in Kenyan Academic Secondary Schools. A Tracer Study. Educational Document No. 21*. Stockholm, SIDA.

Skager, R. Dave.; R. H. 1977. *Curriculum Evaluation for Lifelong Education*. Oxford, Oxford University Press for UNESCO, Institute of Education.

Stone and Wonser. 1991. *Journal of Vocational and Technical Education*, Vol. 8, No. 1, Omicron Tau Theta.

Tilack, J. B. G. 1988. Vocational Education In South Asia: Problems and Prospects. *International Review of Education*, Vol. 34, No. 2, pp. 244–57.

'Quality of Life' and Development Education

UNESCO/G. Freund

CONTENTS

'Quality of Life' and Development Education

Introduction

The quality of human life depends on our ability to protect and enhance the environment, to control population processes such as fertility and migration, and to attain and maintain health. Basic development education is necessary for people of all ages, both in school and out of school. The present topic, therefore, seeks to examine how environmental, population and health issues can be incorporated into basic education using formal, non-formal and informal approaches.

The environment, population and health are major concerns in many countries today. Deforestation, soil erosion, dam siltation and river pollution are examples of problems whose magnitude is increasing every year. Societies need to be educated in the fragile nature of the environment and in the key physical and social principles indispensable for the proper management of natural ecosystems. In many developing countries the population continues to grow at a rate much faster than their economic growth. Outbreaks of cholera and malaria and the threatening catastrophe of AIDS serve to underscore the need for effective basic health education for all as an essential complement to efforts being made in the medical field.

In quality of life and sustainable development education the impact made by the school community as a whole is of great importance. What children learn in the classroom depends for its effectiveness on the nature of the curriculum as well as on the skills of the teachers. What is learned incidentally from being in a school community, through its ethics, policies, physical structures, regard for human relationships and dignity, should support and promote further development of what is taught in classroom lessons. The concept of a 'health-promoting school' embodying a comprehensive school health-education programme is an example of an approach of this kind.

Learning Outcomes

By the end of this topic you should have:

❑ reached a better understanding of how education can contribute to meeting basic learning needs related to quality of life and development issues such as environment, population and health;

❑ explored some local examples of environment-related problems and current efforts being made to alleviate them;

❑ explored steps that have to be taken to introduce into school curricula a dimension that embraces environment, population and health;

❑ acquired an understanding of the interdisciplinary and innovative teaching approaches required in quality of life and development education.

This topic is divided into three modules: Environmental Education; Population Education; and Health Education, and these together will require some seven hours of study time.

TOPIC 11

Module 1
Environmental Education

Content

Recent international meetings, notably the Earth Summit held in Rio de Janeiro in 1992, and major United Nations Reports, have highlighted the interlinked challenges involved in seeking to protect the environment and in working to promote development. They have emphasized a task of crucial importance, that of handing on to future generations a world capable of promoting the natural life-enhancing beauty and the life-sustaining resources they will need. This calls for the environmental education and training of each successive generation in order to ensure widespread environmental literacy – the elementary knowledge, skills and motivation essential for people to participate in the solution and anticipation of environmental problems and for them to make their own contribution to sustainable development. People everywhere strive for a safe, clean and healthy environment, for a sustainable food supply, for the protection of nature, wildlife and genetic resources, and for a well-planned and pleasant environment, conducive to the continued improvement of each individual's quality of life. These needs must be considered when defining the basic learning needs of a community or nation.

What contribution can environmental education make to shaping attitudes and promoting action that will help achieve the goal of sustainable development?

Activity 11.1.1

Five principal learning objectives for environmental education have been established internationally. They are:

❑ building awareness of the environment and sensitivity to it in its totality, natural and built;

❑ assimilation of appropriate and relevant knowledge about the environment;

❑ development of attitudes of ethical concern about the environment, motivating active participation in its protection;

❑ acquisition of skills enabling identification of solutions or anticipation of environmental problems;

❑ active participation of all in the process of environmental education.

Divide into small groups and discuss these objectives with your co-teachers. What do they imply in your own particular teaching situation? Report your findings to the group as a whole.

Environmental Education and the Curriculum

In many countries there is concern that the introduction of environmental education into an already overloaded curriculum may place an unrealistic burden on learners and teachers alike. When this is felt to be the case, it is of special importance to ask the question: how best can education be restructured to provide education in, through and for the environment? In a number of countries, use has been made of an approach which regards environmental education not as a subject apart but as a dimension of the curriculum. There may be a need to consider regrouping traditional subjects, such as geography, history, science, civics and hygiene, so that a dimension of environmental education becomes an integral part of the school curriculum as a whole. In each national setting, key environmental concepts and issues of most immediate relevance need to be identified.

Activity 11.1.2

1. Working in small groups, identify some of the key issues in environmental education that need to be addressed in your country. Record your findings.

2. Discuss your findings with the other groups and try to reach agreement on which issues should be given priority in the curriculum of your school.

3. Discuss how far education in your country is leading to a sense of the vital importance of these issues and what should be done about the situation.

While in most cases the use of children's books and teachers' guides forms the basis of classroom teaching, there are other possibilities. Teachers and children in remote areas can benefit from distance learning by listening to radio programmes; in some cases they may also have access to television. Reading material such as children's magazines on environment-related themes can provide inspiration for pupils and teachers alike.

Activity 11.1.3

1. Working in small groups, identify the resources that are accessible to you and your pupils in environmental education – both written and through the media.

2. Discuss with your co-teachers how better use might be made of these resources, particularly in relation to the key issues you identified in the previous activity.

3. Present the findings of your group to your other colleagues.

Non-formal Programmes

In all countries, non-formal programmes of environmental education can be useful. Whereas the Ministry of Education is of paramount importance in formal education, in non-formal education many other agencies and institutions can be involved. These may include the ministries responsible for environment, communication, agriculture, health, forestry and natural resources as well as a wide range of business and private bodies concerned with these matters. Various United Nations bodies may support both national and local programmes. The development of new partnerships, especially with non-governmental organizations and the media, can be particularly effective in reaching out to remote areas.

Activity 11.1.4

Go through Reading 11.1, Magic Eyes in Thailand (page 15).

Working in small groups, discuss the following:

1. What was your reaction to this programme?

2. How far would a programme of this kind be relevant in your own country?

3. What steps might you take to put a non-formal environmental education programme into operation in your community?

Sustainable Development and the Environment

The natural environment provides the basis for most economic activities. Yet many such activities take natural resources for granted. Non-renewable resources such as fossil fuels are used without due regard for their future availability or for their effects on the environment. One particularly serious threat to sustainable development is pollution. It is caused by materials and poisons such as aluminium cans, mercurial salts, and many different kinds of chemicals including some insecticides and pesticides. These may not degrade or may only do so very slowly in the natural environment. Some of them move along food chains, and some combine to produce highly toxic substances.

Activity 11.1.5

Investigating the Effects of Pollution

❑ Collect soil samples from three different types of factory waste dumps. *NOTE: great care is essential since some waste may be toxic.*

❑ Also collect a soil sample from a vegetable garden.

❑ Grow common bean plants in each of the four samples.

❑ Record the height of the bean plants and describe their condition regularly for four weeks.

❑ What conclusions can be drawn with regard to the possible effects of factory waste on plant growth?

Wildlife and Environmental Education

Nature conservation and the use of wildlife is a form of land use, whether practised in isolation or integrated with other patterns of land use. It must be sociopolitically acceptable, economically justifiable and economically sustainable.

In most developing countries wildlife as a resource is being threatened as people overcrop animals and plants or invade their ecosystems. If wildlife is well managed this can be of benefit to society in the present and in the future.

In some countries the government has declared certain wildlife species and plants endangered and it is an offence to kill them. In Zimbabwe, for example, 10 mammals, 40 birds and 48 plants have been declared protected species. The black rhino population, for example, numbered about 2,500 in 1980 but had fallen to an estimated 500 in 1993; the remainder must have been poached.

❑ sympathizer with rhino-horn trader

❑ sympathizer with users of rhino-horn products

❑ villager who wishes to be given hunting rights in game parks

❑ conservationists

(a) pupil, a member of the school's nature club

(b) traditional healer

Activity 11.1.8

Endangered Species

Some species are now threatened with extinction.

❑ List rare or endangered species found near your village/farm/town which fall within one or other of the following categories:

mammals;
birds;
plants.

A visit to the local museum or national park will help.

❑ How often in the last two months have you seen the species you have identified?

❑ Why is it becoming difficult to see them?

❑ What community effort can you participate in to help protect rare or endangered species?

TOPIC *11*

Module 2
Population Education

The purpose of population education is to help people understand the impact of population change on their lives and to develop the decision-making skills they will need to cope with their population situation and improve it.

Joseph van Arendonk, Assistant Executive Director, United Nations Population Fund (UNFPA)
EFA Monograph I.

A population grows mainly as a result of natural increase, i.e. an excess of births over deaths. To a lesser extent it also grows from immigration. In general, both birth and death rates are lower in developed than in developing countries.

Although they are still higher than in developed countries, death rates in developing countries have dropped sharply as a result of improved standards of health and hygiene. At the same time, birth rates remain high and this is attributable to factors such as:

- ❑ the perception of children as insurance against poverty;

- ❑ early marriage;

- ❑ social customs favouring male children for performing religious ceremonies and for inheritance;

- ❑ limited use of methods of birth control.

As a consequence of high birth rates, developing countries tend to have very young populations. In Zimbabwe, for example, 48 per cent of the population is under 15, compared with less than 30 per cent in developed countries. Such a youthful age-structure makes it necessary for an abnormally high proportion of government expenditure to be directed to non-productive areas such as clinics and schools. The education sector, for example, is under continuous pressure to 'keep up'; to build more schools and recruit more teachers as more and more children move into the school age-group.

Population policy is a matter of controversy in many countries. It is affected by political, cultural and religious factors, and each country has to work out its population policy in relation to its own constraints.

Activity 11.2.1

Go through Reading 11.2, Population Education in Benin (page 17).

How far do similar considerations apply in your country?

Does the approach to population education differ sharply from that in Benin?

If so, identify the significant factors.

A number of basic and universally applicable concepts form part of the content of population education.

First, there is the importance of having respect for others, especially persons of the opposite sex. If children can learn this, can understand what it means and can develop it as a strongly held value, then they will refrain from behaviour which is potentially harmful to others.

A *second* equally important concept is that of self-respect and self-esteem. While this is pertinent to both boys and girls, it is particularly important for girls, and should be accompanied by exposure to the variety of options (employment opportunities, etc.) which will open up to them if they finish their formal education and avoid early pregnancy.

Third, children and young people should learn to understand that it is possible to plan. This includes the importance and feasibility of family planning. When children leave school, at whatever age, they need to understand the importance of planning the first pregnancy in terms of the benefits (health, social and economic) that planning can bring to them and their children. They should understand too that, ideally, children are born out of a conscious, carefully thought-out decision on the part of loving parents. This concept needs to be taught early and is one of the most important in population education.

The _fourth_ concept to convey is that behaviour has consequences. Since individuals can usually control their behaviour, they must accept responsibility for its consequences. If adolescents behave irresponsibly, for example, in the area of reproductive behaviour, they should understand that the consequences may have lifelong implications.

Finally, children and young people need to learn how to withstand social pressures. These may come from peers in societies where early adolescent sexual activity is prevalent; they can also come from parents or other relatives and neighbours who expect young couples to have their first child as soon as possible after marriage. Population education should help learners to recognize these types of social pressure and help students to deal with them in a responsible manner.

Activity 11.2.2

Working in small groups, discuss the five basic concepts outlined above. How would you go about teaching them?

Population Education and Women's Issues

The concepts of 'population education' and 'improvement of the situation of women' are closely related. The essential common factor is that of the integration of women in development activity. The time has come for the explicit recognition of the role of women as active agents of development. Population education is based on two main concerns, one for the family and the individual, the other for major demographic trends. Women are at the centre of both. Through marriage and procreation, the woman is at the heart of the family and also of demographic change. As an individual she must develop self-confidence and self-esteem. In some parts of the world the demographic scene is largely governed by factors such as early marriage, polygamy and repeated childbirth. Among adolescents pregnancy is an all too common cause of girls dropping out of school. It is important to take action to ensure that all adolescents and adults, especially girls and women, have access to population education.

Activity 11.2.3

Too Young for Family Planning? Role Play

Situation:

Sekai, a 35-year-old mother of five children and her 17-year-old neighbour, Revai, who is already the mother of one child, are having a discussion with a community-based family planning worker, Mai Tambu.

Sekai's 16-year-old daughter, Chipo, just back from school, comes into the room. At first Sekai orders her to leave, saying that the conversation is for adults only. Revai points out that she and Chipo are about the same age.

Reluctantly Sekai is persuaded to let Chipo join in.

Enact the discussion that is likely to follow.

Approaches to Population Education

Population education can be a lot of fun for pupils when ordinary games are built into learning activities. One example is the use of the snakes and ladders board game for population education (see page 10).

Activity 11.2.4

The Population Game

Up to five pupils can play. The first player to throw a six with the dice starts. Each player, in turn, moves forward the number of places shown by their throw of the dice. The aim is to be the first to reach 80, the finish. Landing at the foot of a ladder (an indication of a favourable factor) takes the player to the top; landing at the head of a snake (an indication of an unfavourable factor) takes the player back to the tail. The notes given on the board help the players to learn which factors are favourable and which unfavourable for influencing population growth through family planning. The enjoyment of the game is in no way diminished by combining it with learning.

Snakes and Ladders Population Game

80 FINISH	**79** Higher standard of living	**78**	**77** War	**76**	**75** Male children preferred	**74**	**73** Less need for many children
65 Low standard of living	**66** Low infant mortality	**67** Positive govt action	**68**	**69**	**70**	**71**	**72**
64	**63**	**62**	**61**	**60**	**59**	**58**	**57** High infant mortality
49	**50** No incentives to limit family size	**51** Should be available	**52**	**53**	**54**	**55**	**56**
48 Improved nutrition	**47**	**46**	**45** Need for more children	**44**	**43** Improved farm machinery	**42** Fewer children born	**41** More children born
33	**34** Lack of health workers	**35**	**36**	**37** More children born for replacement	**38** Higher age for marriage	**39**	**40** Higher rural incomes
32 Used for family planning	**31**	**30**	**29**	**28** Illiteracy	**27**	**26**	**25**
17	**18**	**19**	**20** Education	**21**	**22** Lack of contraception	**23**	**24** Family planning campaign slowed down
16	**15**	**14** Many diseases	**13**	**12**	**11**	**10** Land reform	**9**
1 START ➡	**2** Availability of contraceptives	**3**	**4** No family planning programme	**5**	**6**	**7**	**8**

Module 3
Health Education

Health is a measure of the effectiveness with which individuals and human groups – using a combination of biological and cultural resources – adapt to their environment. This includes the capacity to face crises with ease and grace and to maintain a positive attitude towards life and its responsibilities. According to the World Health Organization (WHO) health is the complete mental and social well-being and not merely the absence of disease or infirmity.

Good health occurs when human beings and their environment are in harmony. Changes in the environment such as housing, sanitation, climate and social behaviour can lead to poor health. Harmful organisms in the environment cause diseases. These can be spread through the air, water, food, insects and contact between people.

Health is a vital part of worldwide 'Education for All'. It addresses the basic learning needs of both children and adults. To ensure that these needs are met, developed and developing countries alike should provide health education for people of all ages, at school and out of school as well as through adult literacy and adult education programmes. A 'call for action' to identify and meet the basic health needs of all these different population groups was issued at the Jomtien Conference.

The twin goals, 'Education for All' and 'Health for All', are inseparably linked. Both are human rights and must be achieved concurrently. Good health is essential for effective learning and education is a powerful means of enabling children and adults to attain and maintain good health.

In addition to benefiting children directly, health education can have an important multiplier effect on the community. When properly encouraged, children themselves become excellent health managers and activists within their own families and communities. Thus, effective teachers can be an invaluable resource for health in the community as well as in the school. This is of special importance for the developing world where schoolteachers outnumber health workers by five to one.

Health Education in the School Curriculum

The health-education curriculum is a key factor in improving health education. Some basic principles for developing a good curriculum concern the identification and, above all, the progressive development, of key topics throughout the school career of children and young people, using different strategies appropriate to their stage of development. This is sometimes called the spiral approach to curriculum planning. As in other facets of the curriculum, such as science and technology education, it is important to start where children are in their perception of a particular topic. They come to school with their own ideas about health topics and these can provide important starting points in their own learning. It is important to use a wide variety of teaching and learning methods, including opportunities for taking decisions which lead to practical action.

Each country needs to draw up its own list of essential topics for health education, allowing, where appropriate, for variations to take account of differing regional and local situations (see also Topic 5, Reading 5.5).

Activity 11.3.1

The following list of topics for health education comes from the Philippines:

- ☐ human growth and physical development;
- ☐ personal health;
- ☐ prevention and control of disease;
- ☐ community health;
- ☐ drug abuse;
- ☐ consumer education;
- ☐ growth to maturity (including sex education);
- ☐ nutrition;
- ☐ mental and emotional health;
- ☐ first aid.

Working in small groups, discuss to what extent these would be priority topics in your own situation.

Discuss your conclusions with the group as a whole.

Are all the topics you consider to be important being taught in your school?

Health education is often integrated with other subjects. Most frequently, it is integrated with science, physical education, home economics and social studies. In primary education, integration should not be difficult where each class has a single teacher responsible for covering the whole curriculum and who knows each pupil well. The core elements of the curriculum provide many opportunities for developing health-education themes and topics. Indeed, health education can enhance some traditional curriculum areas by providing a relevance to children's lives. It can thus generate motivation to learn through linking with matters of importance to them, such as the health of their own families and friends.

The 'health-promoting school' is increasingly being used as a unifying concept for the many aspects of health education. It is widely recognized that health education does not end with schooling but that its effect and influence on pupils is greatly intensified by the supportive network of school, home and community.

Links between school and community have been established in many countries in order to address health issues. School premises are used as temporary health posts and as centres where teachers and pupils can bring a better understanding of healthy living to the community. Schoolchildren and teachers have played an active role in many national immunization campaigns.

The health education of out-of-school children poses major problems in many countries. Outreach programmes to such children have been devised in a number of innovative ways. Go through Readings 11.4 and 11.5 (page 18 and 19) for further consideration of this issue.

Drug Abuse

Habit-forming drugs such as marijuana, mandrax and cocaine should be avoided. They affect both physical and mental health. Such drugs cause headaches, muscular pain, convulsions and hallucination. The feelings of satisfaction they give are exaggerated and heavily outweighed by the associated negative effects on health. Those who take drugs end up dependent on them, i.e. they feel that they must continuously have drugs in order to go on living. Alcohol, although socially acceptable in many societies, is a habit-forming drug and has negative effects on health if taken in excess. Cigarettes, too, contain substances which are harmful to the body and the association of smoking with cancer and lung and heart disease is now widely accepted.

Preventive education against drug abuse is essential. Drugs play a beneficial role only when prescribed or administered by qualified health personnel, doctors and nurses. Drugs should not be obtained from peers or strangers or even from friends. They may themselves be addicted or be dealers, or pushers. It is useful for pupils to be able to recognize habit-forming drugs by their appearance and be aware of the symptoms they cause.

AIDS:

AIDS (Acquired Immune Deficiency Syndrome) awareness should also form part of health education. AIDS is a long-term condition caused by the Human Immunodeficiency Virus (HIV) which renders the body's natural defence systems ineffective. When this stage is reached the person is said to be suffering from AIDS. So far there is no known cure.

Activity 11.3.3

1. Indicate whether the following are True or False:

AIDS is spread by:

- ☐ using unsterilized needles for injections ....
- ☐ using untested blood for transfusions ....
- ☐ caring for those with AIDS ....
- ☐ using toilets and latrines used by an infected person ....
- ☐ sexual intercourse with an infected person ....
- ☐ shaking hands with an infected person ....

2. Collect cuttings of newspaper and magazine items and articles on AIDS.

Report to your co-teachers the main ideas in them.

Why are there now more news items on AIDS than there were only a few years ago?

The Key Role of Teachers

The training of teachers in the principles and practices of health education is crucial for the success of health-education programmes of all types. Teachers should understand the nature of the process of health education and how to apply it to the problems and needs of the children in school and to the local community. There has been a real effort, particularly related to drugs and AIDS education, to improve the in-service training of teachers, but in general, less attention has been given to health during pre-service teacher education. Health, as a rule, has been linked mainly with biology and integrated science teaching, and to a certain extent, with home economics and physical education.

While there is now broad agreement that health education should find a firm place in the pre-service training of teachers, pressure on teaching time and the lack of suitable trainers pose problems. However, some countries have made substantial efforts to provide both in-service and pre-service training for teachers as well as for other key personnel in public health and health education.

Readings

Reading 11.1

The Role of Non-governmental and Community Organizations in Promoting Environmental Education: Magic Eyes in Thailand

There is mounting concern that environmental destruction is advancing at so swift a pace that there is no time left to wait for the next generation to be environmentally educated. Fortunately, reaching children and youth effectively can also be a means of reaching adults, thereby helping to change the behaviour of two generations at the same time. This is illustrated in the following case-study.

The Thai Environmental and Community Development Association (TECDA) began work in the early 1980s with the aim of educating all the people to be environmentally aware. At the time the programme was launched environmental education was a relatively new concept in Thailand. It was hoped that awareness would lead to action (initially in people's own domains – in the house, outside the front gate) and then to participation in developing the community and the country as a whole. Thus, the idea of issue ownership was being put into practice to develop responsible citizenship. The ultimate aim of the project was to develop a love for, and attachment to, one's environment, so much so that one would no longer allow others to pollute, but rather encourage them to conserve the environment. The important point was to present complex environmental problems simply and to show how they affect individuals.

TECDA's basic mass education began with the 'MAGIC EYES' HELP KEEP THAILAND CLEAN CAMPAIGN. The Thai population is young, 60 per cent are under 25 years old and 40 per cent are under 14. Young people have a major influence on society today and they will be the future economic leaders, industrialists and policy-makers. The campaign was, therefore, developed with children and youth as the main targets, and adults as secondary targets. A series of cartoon advertisements on television were directed at children – persuading them to put rubbish in its proper place and encouraging them to 'police' adults and shame them into doing the same thing, with the words 'Ah-Ah! DON'T LITTER! MAGIC EYES SEE YOU'.

The campaign started in 1984 with advertising and promotion to get people involved. Life-size puppets, television advertisements, badges, stickers, T-shirts, posters and handbooks were used to promote the MAGIC EYES. The logo is shown on the following page.

From the anti-litter campaign, the programme expanded to address problems of water pollution and forest destruction. The slogan was changed to HELP KEEP THAILAND GREEN AND CLEAN. Kindergartens are now teaching MAGIC EYES jingles the way nursery rhymes are taught as a means of instructing children not to litter.

In developing this programme, partnerships have been built up with various sectors of the community. In particular, they involve community leaders of various kinds, government officials, the private sector in the community, and schools. Contributions have been received from supporting companies, followed by actual participation and involvement whenever possible.

Activities and campaigns have also been launched to encourage involvement and participation by the general public so as to increase understanding of environmental problems and to raise the consciousness of different communities (for example, factories, businesses and open-air markets) to their responsibilities for maintaining a good environment. They include tree-planting and anti-litter campaigns, contests among different groups such as clean factory, clean market, street sweepers contests, and riverbank and floating restaurant contests. There are also painting competitions, slogan contests, cartoon drawing and essay contests.

In January 1990, the Chao Phya River programme was launched to draw attention to the rapid deterioration of this river which runs through eleven provinces and has always been considered Thailand's lifeline. The MAGIC EYES logo is used, but in a blue colour scheme. Since the start of the programme, interest in the Chao Phya River has increased markedly in all sectors: individuals, communities, schools, university groups, mass media and the government. Examples include a trial programme to collect garbage along the riverside by boat, and the introduction of both short- and long-term measures to solve the problem of water pollution at the Bangkok Fish Market.

The programme has been tremendously successful in getting Thai people educated and involved in improving local environmental conditions. The number of people actively participating in the programme grew from 15,000 in 1984 to over 100,000 in 1986 and 500,000 in 1989.

Adapted from: EFA Monograph I.

Reading 11.2
Population Education in Benin

An interesting example of a population education programme which attempts, on the one hand, to 'start where the learners are', and, on the other, to place its activities in the context of the cultural and religious values of the country, is furnished by Benin. The idea of a programme concerned with sex education was a sensitive issue and, from the beginning, it was difficult to launch it properly. Therefore it was decided to change the tactics and redefine the content and context. An attempt was made to distinguish between population education as such, and the requirements of family planning, and to address relevant messages to appropriate age-groups. Educators and teachers were trained on the basis of a programme covering more than one discipline, for example, issues relating to biology, health education, environmental education, etc.

The programme now in operation starts gradually with an emphasis on health and hygiene in pre-school education. It then develops at primary school on an interdisciplinary basis in relation to geography, preservation and safeguarding of the environment and health – with relevance to diseases prevalent in the country. At more advanced levels links between the quality of life and population trends are established and appropriate attitudes and behaviour are cultivated. For those in higher education, there are seminars and conferences on specific topics. This programme is now operating successfully and the initial resistance has been overcome.

Adapted from: EFA Monograph I.

Reading 11.3
The Health-promoting School

In its simplest sense the 'health-promoting school' is a force for the dynamic interaction of three strands – the classroom, the school community and the local environment. Its main characteristics are described below:

What children learn in the classroom through the health-education curriculum depends for its effectiveness on the nature of the curriculum itself and the skills of the teachers.

What children learn incidentally from being in a school community through its ethics, its policies and physical structures, and its regard for human relationships and dignity, should support and provide further development of what is taught in the classroom.

What children learn from their environment through living in families and their contacts with other influential groups, through the media and through the activities of the school health service and other health-related services, such as hospitals and public health campaigns, complements the other two strands.

The concept of the 'health-promoting school' is still in its infancy. The successful health-promoting school is one which is able to co-ordinate all these opportunities to learn to the best possible advantage and to focus all relevant influences on promoting the health of pupils and teachers. All too often, where there is excellent learning and teaching in the classroom related, perhaps, to tobacco or nutrition, the messages and influences are undone by bad experiences in school canteens or by

the lack of coherent public policies with regard to smoking. Children learn more from example and from good role models than from rhetoric.

Adapted from: EFA Monograph I.

Reading 11.4
Health Education for Out-of-School Children

According to UNESCO estimates, even if enrolment trends are maintained, there are likely to be 200 million out-of-school children by the year 2000.

Out-of-school children include orphans and children from underprivileged families. Some may have dropped out of school, but most of them never attended school. For all of them the essential problem is survival. Self-preservation and the demands of the family, if there is one, thrust adult responsibilities on them prematurely. Nevertheless, they have the right to health education.

Among the out-of-school children are the street children. It is estimated that there are 30 million street children in the world, victims of poverty, war, civil strife, and loss of parents. Half of the 30 million live in Latin America: 7 million children alone live on the streets of Brazil's cities and towns. Community-based organizations have devised ways of reaching out to these children.

Underprivileged children in urban areas who, with their families, struggle for survival, often do not value schooling, nor can they afford it. There has been an alarming increase in the number of poor urban families due in part to the growing migration from the rural to the urban areas. Far too many children either become street children, driven to engage in illicit activities, or are exploited as cheap unskilled labour, condemned to live in slums with no social identity or hope of escape. In a number of countries efforts are now being made to reach these children.

Another group of children who do not go to school are those from poor families in rural areas where child labour is still regarded as an essential part of the way of life. Children, especially girls, are needed to carry out many daily activities such as collecting firewood and fodder, grazing animals, carrying out household chores and minding younger children. Being poor and female are two major reasons why many of these children do not go to school (see also Topic 2, Module 3).

Adult literacy and adult education health programmes

Adult literacy programmes focused on health promotion are being carried out in many countries around the world. Sometimes the initiative and support come from specific concerns such as nutrition, family life or AIDS. In other cases they may integrate activities to meet more than one need: for example, a self-reliance and literacy programme in Bangladesh seeks to help the landless, the young and women. Education, health, family planning and income-generating activities are all incorporated in it.

Other programmes have been aimed specially at mothers and pre-school children. In India, for example, as part of the country's integrated child-development services, mothers can come to health centres where they can learn about such topics as immunization, nutrition and a clean environment. The services are designed to help mothers develop good hygiene and health habits in children before they enter school.

Adapted from: EFA Monographs I and II.

Reading 11.5
The Child-to-Child Programme

The 'Child-to-Child' Programme, pioneered in the United Kingdom and adopted in many developing countries, is based on the fact that many children spend much of their time caring for their younger siblings. In developing countries it is the youngest children who pay the highest price in terms of illness. The main causes of infant mortality include malaria, diarrhoea, respiratory infections and infectious diseases, most of which are due to unhygienic conditions and malnutrition. All are, to a greater or lesser extent, open to remedy or alleviation by public health education. Children are receptive to new ideas and have abundant energy to pass them on and apply them. If they are taught sound health principles, they are better able to look after the younger children in the family, carry new ideas into the home and help to reach out-of-school children.

The 'Child-to-Child' approach is based on four principles: (i) the importance of primary health care, that is, to develop within the community and in each of its members the ability to take responsibility for improvement of their own health; (ii) confidence in the ability of children, as members of their community, to spread the messages of primary health care among their parents, their families and their communities; (iii) the importance of action – in health education every lesson should be accompanied by practical work related to health care; and (iv) the need for co-operation, that is, mutually agreed action taken by educators and health workers.

Activity sheets and other learning resources have been developed, relevant to the country in which the programme is operating. Since it was launched in 1979, the International Year of the Child, Child-to-Child has become operative in over sixty countries.
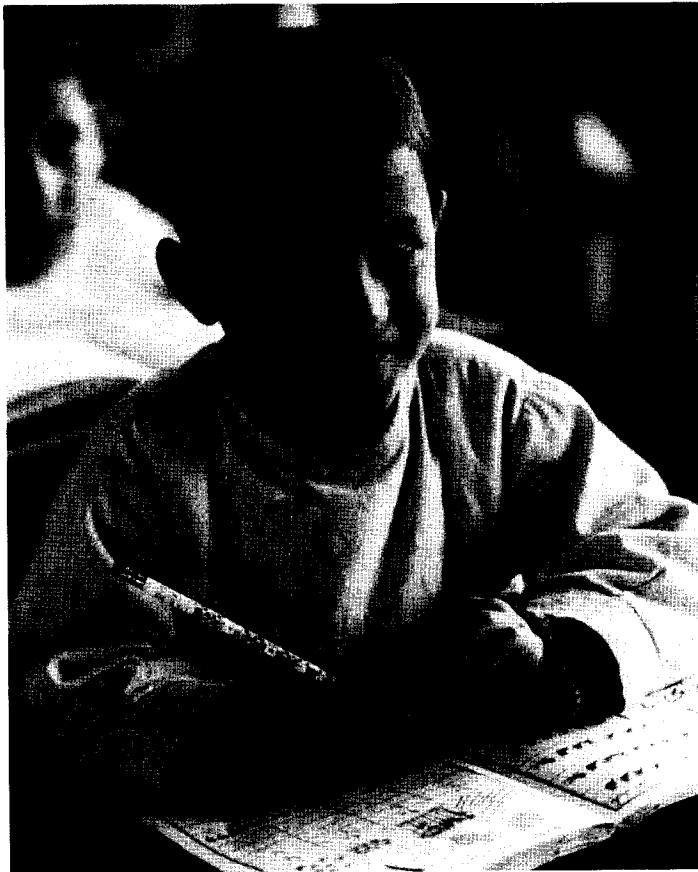
Source: EFA Monograph I.

Bibliography

Hawes, H.; Nicholson, J.; Bonat, G. (eds.). 1991. *Children, Health and Science: Child-to-Child Activities and Science and Technology Teaching, Science and Technology Education Document Series No. 41.* Paris, UNESCO.

UNESCO. 1977. *Trends in Environmental Education.* Paris, UNESCO.

UNESCO. 1983. *Preparing Teachers For Population Education.* Paris, UNESCO.

Quality Education and Standards

UNESCO/D. Nasr

TOPIC 12

CONTENTS

Quality Education and Standards

Introduction

A s we have seen in Topic 3, the achievement of quality education depends on many factors. In this topic, we shall explore one particular factor, namely: how standards can be used to help achieve quality education. In some countries, for example Jamaica, it has been proposed that excellence in basic education be encouraged by giving each primary school an effectiveness grade in addition to the usual school grading through enrolment figures. This effectiveness grade will be arrived at by determining the standard at which the school operates, measured in terms of achievement targets set for the school, its administrators, teachers, pupils and educational practices. In this topic these draft standards are reviewed as examples for countries wishing to develop their own standards of performance. They are not in any sense prescriptive and may be quite inappropriate in some countries, but they do suggest how, through the specification of performance indicators for each item, the measure of achievement of a particular standard can be assessed. The results of such assessments may be valuable for teachers and administrators alike in leading to higher standards in teaching and learning.

Learning Outcomes

By the end of this topic you will have:

❑ considered some key issues in the use of standards for improving the quality of education;

❑ reviewed several sets of standards for promoting excellence, and ways in which the achievement of a particular standard can be assessed.

Content

Promoting Excellence through Effectiveness Rating

In many countries assessment is done mainly by examining student and teacher performance. In Jamaica and some other countries, however, it is proposed that the institution as a body be judged. Moreover, students' performance will not be judged solely on test scores but also on the affective domain. It should not be only the pupils who fail or pass assessments, but the whole school environment. Assessment should reveal the factors that promoted or constrained learning, including parental and community support, the curriculum, instructional materials, teachers and school managers.

In Jamaica, the proposals for assessing the standards of primary education, specifically the institutions, cover all the above areas (see Appendices I to IV).

The standards are stated in terms of input, context, process and output.

❑   Input standards refer to the provisions that the Ministry of Education needs to make for primary education.

❑   Context standards refer to parents' and community support for the school.

❑   Process standards refer to the teaching/learning and administrative strategies employed by the teachers in the school.

❑   Output standards refer to learning outcomes of the students, their achievement levels.

The four areas are all interrelated. A student's output depends on the input provided, the social context of the school and the process of teaching and learning in the school. 'In a real sense standards are somewhat arbitrary. The performance indicators are approximations of the standards.'[1] Yet they are necessary as they help to indicate the quality of education provided. Schools can then be assessed in terms of the established standards. Schools attaining the level of excellence will be acknowledged, while those who fall short of meeting these standards will be assisted so that their performance can be improved.

Activity 12.1

Working in small groups and using the stated four areas to be assessed as a guide:

❑   discuss your perceptions of a good and a weak primary school;

❑   identify the factors in both situations.

Draft Input Standards

Input standards refer specifically to government provisions for primary education, which are essential for creating an environment conducive to learning (see Appendix 1, Draft Input Standards). They concern:

❑   buildings;

❑   furniture;

❑   staffing;

❑   learning materials.

Given the present state of the economy of most developing countries it will be difficult, yet necessary, for governments to make adequate provisions.

1. Errol Miller, Jamaican Ministry of Education Paper, The Use of Standards.

Draft Context Standards

These standards concern:

- ❏ the composition of the School Board;

- ❏ school and community relations;

- ❏ parents' responsibilities.

(See Appendix II, Draft Context Standards.)

These proposals seek to make the community partly responsible and accountable for schools in their location. They also aim at making the value and contribution of the school more visible to the community by the interaction that is prescribed. Fostering close ties between both bodies will also create opportunities for the school and its curriculum to be more immediately relevant.

In order to maintain the standards outlined above, school administration can clearly legislate for some of them through their admission and other policies. There are, however, a number of standards related to the community's responsibility that cannot be legislated for. One such would be a provision requiring 'school premises to be free from vandalism'. The members of the community will have to be encouraged to see the school as belonging to them, so that as a community they will protect it and take pride in it.

There is also the matter of the health of the students. Schools can insist on their pupils receiving the prescribed inoculations but clearly cannot regulate the nutrition levels of their pupils.

The present economic situation in many developing countries is in great measure responsible for the large number of malnourished children, and unless this is addressed, these children will not profit from primary education. A school feeding programme will therefore be necessary in many schools.

Draft Process Standards

These standards relate to actual instructional time, the curriculum, teaching methods, materials, enrichment activities, tests, and the school environment (see Appendix III, Draft Process Standards).

Of particular importance is the performance indicator on instructional time. The other key area is that of actual teaching. Performance indicators specifically refer to actual attendance of teachers, proper planning as evidenced by weekly schemes, lesson plans and a variety of teaching methods. However, there is no focus on teachers' attitudes, relationships with their students, or teaching performance – all essential elements in the teaching/learning process. Admittedly, assessment in these areas is not an easy matter.

Some of the performance indicators are imprecise as they refer to the affective domain. It will be difficult to measure factors such as high/low morale, loyalty, tolerance, yet this is an essential area too often undocumented in students' evaluation exercises. The result has been the graduation of students who see achievement mainly in terms of high test scores and fail to recognize the importance of loyalty, tolerance, deference, etc., to others, to one's society. And no country can progress without citizens who value such qualities.

Draft Output Standards

These standards refer to pupils' levels of achievement in literacy, numeracy, problem-solving, student involvement in community, student attitudes, values and general conduct (see Appendix IV, Draft Output Standards).

These performance indicators focus on pupils' performance – the area most used to assess teacher and school effectiveness. In assessing performance or learning, account has to be taken of several factors:

- ❑ the relation of the assessment to curriculum objectives;

- ❑ the frequency of assessment, whether it is continuous or just one examination;

- ❑ the variety of internal tests given and how they were used;

- ❑ the external test.

Activity 12.5

Go through Appendix IV, Draft Output Standards.

What comments can you make about these standards?

Write a short paragraph indicating your view of each of the factors and what you think needs to be known about them.

Working in groups:

1. Examine a syllabus and an accompanying test paper to see how well they relate. This should help you appreciate in a practical way that testing of student-outcome should be closely aligned with the objectives of the curriculum and syllabuses.

2. Identify and discuss effective ways of assessing learning achievement. Include in your discussion:
   - ❑ the learner;
   - ❑ the teacher and school feedback;
   - ❑ curriculum evaluation.

Also review the system of assessment (or a part of it) of a primary school in your community.

Record your findings and report to the group as a whole.

Appendix I

Draft Input Standards

1] Buildings that provide adequate accommodation for teachers and students and facilitate the teaching/learning process.

The provision of these would be revealed by the following performance indicators:

1. Ventilated and well lit, by natural means where possible, classrooms that provide at least 14.4 sq. ft. (1.35 sq. m) per pupil.

2. Student lavatories and a sick bay: approx. at least one w.c. and shower per 40 pupils.

3. Student drinking fountains: at least 1 tap per 40 pupils.

4. Playing field at least 60 m x 45 m.

5. Electricity in each classroom.

6. Water either from the public supply or water storage tanks at the school.

7. Library/Resource Centre with accommodation to seat at least 10% of the pupils at any one time and at least 5 books per pupil and reference books for teachers.

8. Principal's office of at least 132 sq. ft.(approx. 12.25 sq. m)

9. One general office.

10. Staff room that provides at least 14 sq. ft. (approx. 1.30 sq. m) per teacher, and sick bay.

11. Staff bathroom including showers.

12. Changing room, toilet and shower facilities for ancillary staff.

13. Teachers' housing for schools in remote areas.

14. General purpose/dining area.

15. Kitchen/Canteen and storage.

16. Storeroom with at least 280 sq. ft. (approx. 25 sq. m) for schools up to 720 enrolment and 576 sq. ft. (approx. 50 sq. m)for schools above 720 enrolment.

17. A cultivated area with greenery and flowers.

18. Enclosed premises.

19. A smooth access road leading from the public road to the main building of the school.

20. Buildings accessible to disabled pupils.

21. Annual preventive maintenance of school plant; major refurbishing every ten years.

2] An adequate provision of furniture and equipment that facilitate and enhance teaching and learning and the administration of the school.

Performance indicators:

1. One seat and desk for each pupil and teacher.

2. One radio with audio cassette per 200 students; one television and video cassette recorder/player per 500 students.

3. At least one storage cupboard per classroom.

4. One chalkboard per classroom.

5. At least one wall available for visual displays.

6. At least one telephone.

7. One computer for administrative purposes.

8. At least one duplicator, one slide projector and one filing cabinet.

Optional

9. One computer per 100 children in grades 4 to 6 for computer-assisted instruction.

10. One copier.

3] Schools should have permanently appointed, qualified Principals and Vice-Principals who are effective managers and instructional leaders.

Performance indicators:

1. Documentation of permanent appointment.

2. Possession by Principals and Vice-Principals of (at least) a Certificate or a Diploma of the Joint Board of Teacher Education or other recognized authority.

3. Participation and successful completion of In-service or Formal Training programme for school managers and instructional leaders.

4. Evaluation report by the Territorial Education Officer on the effective management of the school.

4] Staff should be academically qualified and professionally trained.

Performance indicators:

1. At least 80 % of the teachers in the school should hold Teachers' Certificates or Diplomas granted by the Joint Board of Teacher Education or their equivalent.

2. Untrained teachers should at least satisfy the admission requirements for Teachers' College.

3. 10 % of the staff participating in formal training or in-service seminars, workshops or conferences in each school year and all staff, including the principal, engaging in continuing professional upgrading at least once every five years.

5] Schools should be appropriately and adequately staffed.

Performance indicators:

1. Schools should not exceed their rated accommodation by more than 10%.

2. The teacher/pupil ratio should not exceed 1:35.

3. One clerk per 500 pupils.

4. One guidance counsellor per school.

6] The teaching/learning process should be supported by an adequate supply of curriculum and teaching materials.

Performance indicators:

1. Grants for basic curriculum and teaching materials to include paper, chalk, dusters, cartridge paper, markers, paints, posters and charts.

2. The provision of one class set of Science kits per six students in each class in grades 4 to 6. One set related to curriculum per grade.

7] Every child should have access to books prescribed for the core areas of the curriculum: Language Arts, Mathematics, Science and Social Studies.

Performance indicator:

1. Every child in possession of books prescribed for at least the four core areas.

8] Schools should be adequately funded in a timely manner in order to carry out their normal functions and should account, in a timely manner, for the funds provided.

Performance indicators:

1. Subsidies for each child to be taken on an educational or field trip once per year.

2. Grants paid in advance.

3. Records of expenditure made by the schools and returned to the Ministry as required by the Code and Financial regulations.

TOPIC *12*
Appendix II

Draft Context Standards

1] Schools should have functioning Boards comprised of persons knowledgeable of the community, committed to education and familiar with the Code of Regulations governing the operation of schools.

Performance indicators:

1. The duly constituted Board meets at least three times per year.

2. Members drawn from persons who are living and working in the community served by the school, or had done so.

3. Chairman and members participated in a workshop or course in which the Code of Regulations was explained.

4. Up-to-date Minutes of Board meetings including the decisions.

2] Schools should be secure within their communities and should enjoy the protection of their communities.

Performance indicators:

1. Teachers and students have freedom of movement in the community and in getting to and from school.

2. The school premises are free from burglaries and vandalism.

3. Within the schools, teachers and pupils are safe from external intrusions and threats, noise and regular commotions.

3] School community relations should support and enhance teaching and learning and the administration of the school.

Performance indicators:

1. A functioning parent-teacher association as evidenced by at least one meeting per term and one consultation between teachers and parents about the children.

2. The availability or use of the school premises by community groups.

3. Regular visits by community members to participate in school activities and functions.

4. Field trips by the teachers and students to explore aspects of the community at least once per year.

5. Participation of the Principal and teachers in community activities and organizations.

6. Financial and/or material support by the community of school projects and activities.

4] Students should come to school reasonably healthy, adequately nourished and properly attired.

Performance indicators:

1. All children inoculated against the common preventable diseases that afflict children in Jamaica.

2. All children within the range of weight to height ratios normal for boys and girls of their age group.

3. All children classified as adequately nourished by Ministry of Health Standards.

5] Students should enter grade one ready to follow the grade one curriculum.

Performance indicator:

1. All children entering grade one mastering at least five skills on the grade one inventory.

TOPIC 12

Appendix III

Draft Process Standards

1] Students should be given the maximum opportunity to follow the curriculum prescribed for Primary Education. Adequate time should be allotted for teaching and learning, and absenteeism on the part of both students and teachers should be strongly discouraged.

Performance indicators:

1. The school year should be of adequate length and most of the time should be spent in active instruction of the students.

2. Each school day should include not less than five hours of classroom instruction. Breaks, lunch time and devotion not in the calculated five hours.

3. 70 % of the time allocated for instruction each week should be devoted to the four core subjects of Language Arts, Mathematics, Science and Social Studies.

4. Teachers are present for at least 94 % of school days for the school year and are normally present for all five hours of instruction.

5. Students are present for at least 90 % of the school days in each school year.

6. From grade 3 each class has a functioning homework programme.

2] The national curriculum for Primary Education should be interpreted and adjusted in relation to the local context in which the school is situated.

Performance indicators:

1. Weekly schemes of work produced by each teacher and vetted and approved by the Principal or Vice-Principal.

2. Lesson plans developed by each teacher showing the adjustments of the National Curriculum in the light of contextual factors.

3] The instruction of pupils should be related to the adjusted curriculum through a variety of methods of presentation, materials and media.

Performance indicators:

1. The use of the curriculum and teaching and learning materials provided or made from materials available in the local environment.

2. The use of the equipment provided to aid instruction.

3. High percentage utilization of the school library/resource room for independent study.

4. The inspection of lesson plans to indicate the use of materials, equipment and methods of presentation.

5. The extent to which resources located within the school are used.

4] Class teaching should employ grouping and teaching strategies appropriate to the varying performance levels of the students being taught the particular content.

Performance indicators:

1. Use of appropriate teaching strategies.

2. Use of small groups within the class or assistance from resource teachers.

3. Use of materials that correspond to the children's stage of development.

4. Use of multi-grade teaching strategies (where applicable).

5. Use of project approaches carried out in small groups.

5] Schools should provide a wide variety of enrichment activities in which teachers and students should participate.

Performance indicators:

1. The number of functioning clubs, societies and groups operating in the school.

2. The number of field trips, excursions, visits to events undertaken during the school year.

3. Existence of a vibrant sports programme in school.

4. Participation in inter-school competitions in various fields.

5. The proportion of teachers and students participating in these activities.

6] Schools should keep appropriate records related to its governance, teachers, students and operations.

Performance indicators:

1. Up-to-date registers of teacher and student attendance.

2. Up-to-date minutes of staff meetings and decisions.

3. Up-to-date personal files for teachers.

4. Up-to-date individual cumulative records of student achievement.

5. Up-to-date Log Book.

6. Up-to-date financial statement related to government grants or other contributions to the school.

7. Up-to-date enrolment records.

8. Up-to-date inventory of furniture and equipment.

9. Up-to-date file of Ministry circulars.

10. A current time-table.

7] Schools should continuously assess the progress of their students toward mastering the educational objectives prescribed by the curriculum at each grade level and use these assessments in the instruction of the students.

Performance indicators:

1. A functioning coordinator of continuous assessment operating in the school.

2. The use of the Ministry's check list of educational progress to identify the curriculum objectives to be assessed.

3. The use of paper and pencil tests, quizzes and games, performance tests, projects, compositions, expositions and other assignments to assess the various objectives.

4. Twice-yearly school examinations.

5. Twice-yearly written reports to parents on the progress of their children in school.

6. Staff meetings to discuss the results of assessment procedures and to make adjustments in the instructional programme as necessary.

8] Schools should maintain environments and climates conducive to learning, good discipline and supportive interpersonal relationships between pupils, teachers, Principals and Vice-Principals.

Performance indicators:

1. Clean and aesthetically pleasing surroundings.

2. Orderly transaction of all aspects of the school operations.

3. Civil and courteous exchanges between teachers, students and school administrators.

4. Deference shown to each other, and tolerance in the expression of differences.

5. High morale among teachers and students.

9] Schools should recognize, reinforce and reward desirable behaviour and sanction and discourage anti-social, crude and undesirable behaviour.

Performance indicators:

1. A well-developed system for recognizing and reinforcing desirable behaviour.

2. Pride in the school and loyalty to its traditions and icons.

TOPIC 12

Appendix IV

Draft Output Standards

1] Schools should enable students to acquire the essential learning tools – literacy, fluent oral expression, numeracy, problem-solving techniques. They should also provide the basic learning content required by human beings to survive, develop their capacities, to live and work in dignity, to participate fully in society, to make informal decisions and to improve the quality of their lives. The desire to continue learning should also be fostered.

Performance indicators:

1. At the end of primary schooling 90 % of the students should be functionally literate and 70 % should be reading at grade 6 level or above.

2. 90 % should be able to respond in a sustained manner with reasonable fluency to open-ended questions on a range of topics.

3. 50 % of the students should master at least 70 % of the Mathematics curriculum and 90 % of the students should master at least 50 %.

4. 50 % of the students should master at least 70 % and 90 % should master at least 50 % of the Science curriculum.

5. 50 % of the students should master at least 70 % and 90 % should master at least 50 % of the Social Studies curriculum.

6. Either 80 % should master 50 % of the curriculum in Art and Craft, Music or Physical Education or 40 % should be functionally literate in a foreign language.

2] Schools should foster and encourage participation in community events and activities in the wider society.

Performance indicators:

1. At least 20 % of the students and 30 % of the teachers engaged in the National Festival or other cultural events.

2. At least 30 % of teachers and students engaged in inter-schools competitions in Sports, Literature, Drama, etc.

3. Evidence that students and teachers are engaged actively in activities in the community, e.g. church, youth clubs, etc.

3] Schools should foster and inculcate wholesome attitudes and values.

Performance indicators:

1. Students holding to the belief that life is the most valued possession and that it should be nurtured and protected at all times.

2. Respect for the property of others.

3. Respect for the National Symbols.

4. Belief in consent as the basis of governance in society.

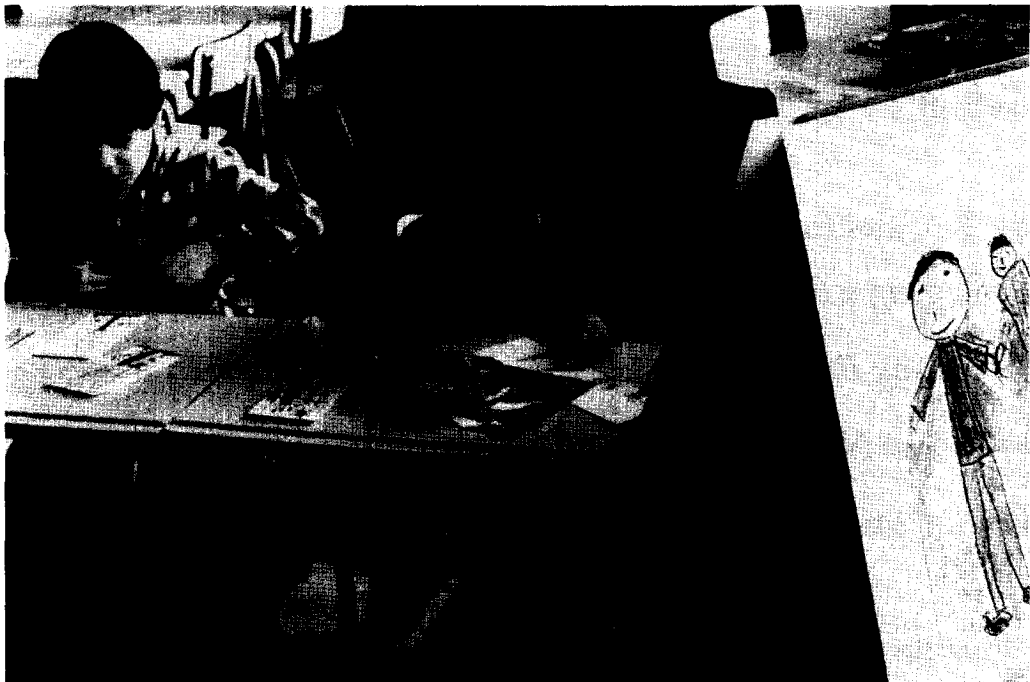5. Self-confident and possessed of a sense of self-worth.

4] Schools should require, promote and encourage students to develop desirable and responsible behaviour appropriate for maintaining community and solidarity in society.

Performance indicators:

1. Proper deportment.

2. All pupils drug free.

3. Students punctual in keeping appointments.

4. Students adhere to lifestyle that enhances personal health, physical and emotional well-being.

5. Students maintain honesty and integrity in relationships.

The
Requirements

UNESCO/D. Roger

TOPIC *13*

CONTENTS

The Requirements

Introduction

The sheer size of the task involved in achieving 'Education for All' is intimidating, for governments and education authorities no less than for teachers and others working with them in the front line. Topic 13 attempts to set in a global perspective the major requirements for transforming the expanded vision and renewed commitment to Education for All into a reality.

Learning Outcomes

By the end of this topic, you will have:

❑ considered the overall requirements which will lead to Education for All becoming a reality in every national setting;

❑ identified the elements that constitute the policy environment for Education for All and ways of developing a supportive policy context;

❑ reviewed the elements of a national technical capacity for Education for All and seen how such a capacity can be developed;

❑ explored ways of strengthening international solidarity in the context of meeting basic learning needs.

Content

The Requirements

Certain requirements will have to be met if the renewed commitment and expanded vision of Education for All, so warmly endorsed by the World Conference, are to become realities. Success or failure in meeting the basic learning needs of all people will depend on the actions taken within individual countries. Given the diversity of situations, capacities and social goals, varying as they do from one country to another, it is not possible to do more than indicate in general terms key areas that merit attention in most developing and industrialized countries. Each will, of course, need to determine for itself the specific actions to be taken in the areas outlined below.

Four themes may be considered:

❑ developing a supportive policy context in the social, cultural and economic sectors;

❑ mobilizing existing and new financial and human resources, public, private and voluntary;

❑ building a national technical capacity to plan, administer and monitor basic education more effectively; and

❑ strengthening international solidarity and cooperation so that the task of meeting basic learning needs is viewed and acted upon as a common and universal human responsibility.

All four are closely interrelated and it is important for action in one area to be co-ordinated with action in others.

Let us explore each of the requirements.

Developing a Supportive Policy Context

Read the following statements:

❑ Basic education will be provided to all children, youth and adults.

❑ Continuing improvement in the teaching of language used as the medium of instruction will be the responsibility of the whole education system.

❑ Everyone has the right to a standard of living adequate for the health and well-being of himself and his family, including food, clothing, housing, medical care and necessary social services.

❑ In-service training programmes for the development of teachers' competence will be organized at national, regional and local levels under
the appropriate direction of the education department.

❑ Women of full age, without any limitation due to race, nationality or religion, have the right to marry and to found a family.

❑ All schools will prepare long-range plans for materials preparation and acquisition.

The above statements are examples of what we call policies. They are statements that indicate the general framework within which decisions and activities are to be made. For instance, in one country, diagnosis of educational activities in a school has revealed that nearly one-quarter of its pupils dropped out because of poverty. This diagnosis calls for action to provide free and compulsory elementary schooling/education.

A set of policies to remedy the defects and deficiencies revealed by the education diagnosis will now form the national education policy. A policy can be an instrument of educational reform. Policy-formulation is a political function and is done by appropriate political authorities of the country.

The provision of Education for All is helped or hindered by the policy environment in which basic education takes place. Basic education does not exist in isolation. The impact of political policies and decisions in all sectors such as trade, labour, science and technology, health and population, etc., is very significant. Basic education is affected by policies in other parts of the education system, such as early-childhood education, teacher training and educational research. Visible and continuing support for basic education on the part of the political and administrative authorities is essential in creating and sustaining a policy environment conducive to the effective meeting of basic learning needs for all.

Mobilizing Resources

The World Declaration on Education for All states in Article 9 that:

'If the basic learning needs of all are to be met through a much broader scope of action than in the past, it will be essential to mobilize existing and new financial and human resources, public, private and voluntary.'

Comment

In all probability, financial resources surface as a real and constant inadequacy in the education sector, given the present targets. The current level and type of resources available to meet basic learning needs are generally not sufficient. There is a need, therefore, to seek new ones to augment what we have at present. But do we know where they are? Refer to Reading 13.1 (page 9) on types of resources, what to do with the resources, ways to generate resources and international funding agencies.

Individual Activity

In this activity, you are to assess the participation/contribution of the major resource bases to educational efforts.

Below is a checklist of major resource bases.

1. Mark the following with an A if the resource is adequately tapped, with an M if tapped at a minimum level and with an O if not tapped at all.

.... (a) government budget

.... (b) non-governmental organizations (NGOs)

.... (c) community

.... (d) family/parents

.... (e) international funding institutions

.... (f) others (media, etc.)

2. Review your output and see which of the resources are minimally tapped or untapped but have the potential to provide resources to support education.

3. List probable reasons for their minimal or non-participation in educational efforts.

Comment

You may have realized that certain resources still need to be maximized. New resources can be sought from three major sources: a broader government base of support, an increased financial effort due to expanded participation by non-governmental organizations, communities, families and individuals, and increased – and more effective – support from external funding agencies.

Efforts may be needed to improve the efficiency of existing educational programmes. Measures to reduce unit (per pupil) costs, to restructure school systems, to make more time-effective use of existing resources (teachers, buildings and equipment) and to provide appropriate learning materials for teachers and pupils can all lead to greater cost-effectiveness (see Reading 13.2, What do we Mean by Cost Effectiveness?, page 12).

However, care should be taken that such measures do not jeopardize the quality of education; cost-cutting is acceptable where waste exists, but in most countries quality basic education will involve higher rather than lower overall costs.

Increased efficiency in the expenditure of basic education funds can be expected to attract increased allocations. Waste and poor quality in basic education tend to lead to reduced support. A priority use of newly mobilized

resources must be to improve efficiency in the education process and to promote accountability to pupils, parents, communities and government. A careful assessment of the resources, actually or potentially available, in relation to the funding required to implement the plan of action for basic education, can help to identify possible inadequacies of resources and may show how choices have to be made.

In addition to securing financial and material resources, mobilization of human resources is of vital importance. The demand for and participation in learning opportunities should not simply be assumed; they may, in fact, have to be encouraged. Potential learners need to see that the benefits of basic activities exceed the costs the participants must bear, such as earnings foregone and reduced time available for social and domestic activities. The mobilization of teachers and other educational personnel is especially important.

Activity 13.4

Individual Activity

Referring to the major resource bases mentioned in Activity 13.2, identify how you can maximize their participation. Answer the following questions:

1. Knowing the potential resources in your locality, how would you mobilize these resources and increase their participation in educational programmes?

2. What can you do in your own way to achieve greater cost effectiveness in education without sacrificing quality?

3. Going back to the items you cited earlier, suggest ways by which you can help in obtaining the needed resources for them.

Building a National Technical Capacity

We all recognize that we have a role to play, a contribution to make, for EFA to become a reality. It is important that we know what that role is, what it entails, what part it plays. Building a national technical capacity means equipping the various actors in the education system with the capability to meet the basic learning needs effectively.

The achievement of Education for All requires a synchronized effort with the teacher as the focus. You need the support of the other members of the education hierarchy, such as the Minister/Secretary of Education and staff, and they need your co-operation in any undertakings that concern Education for All.

For Education for All to become a reality, the technical and managerial potential of developing countries needs to be enhanced and utilized. Development assistance should be designed so that it can be phased out by building national expertise and institutional capacity. External assistance should operate through normal institutional channels and not bypass them. This helps strengthen national administrative structures. National

capacity-building in education should equip key officials and educators with more knowledge about the economic implications of educational reforms and foreign aid and thus become more competent in negotiating assistance with external partners. The countries in the most dire need of external assistance to develop basic education are usually also the very countries where local capacity is weakest.

New modalities of development co-operation also imply a new spirit of partnership, of mutual respect and genuine equality between recipient and donor. In the preparation of programmes for external funding, an intensive dialogue between the parties concerned can help create a common vision to guide their co-operation and help each to better understand the concerns of the other. Such an approach can yield benefits beyond the actual funding involved.

International Solidarity

The goal of Education for All is not one that individual countries should pursue alone. You have seen this in Topic 6 on Strengthening Partnerships; all countries have valuable insights and experiences to share. Intercountry consultation and co-operation need to be intensified; this can be done both through existing international organizations and structures and, where justified, through the development of new ones.

Education for All requires a grand alliance characterized by increased regional and international collaboration between governments, NGOs and donors.

Collaboration among countries with similar conditions can help reduce costs by pooling human and financial resources. Twinning between teacher training and educational research and development institutions in different countries can contribute to cost effectiveness as well as networking among such institutions. Joint projects among them can enrich the quality of basic education.

Read the statements below:

Education ministers from Latin America and the Caribbean adopted a declaration that clearly reflects the spirit with regard to planning and mobilization for basic education.	Five countries in the Asia and Pacific region, namely: Bangladesh, China, India, Indonesia and Pakistan, pose challenges to the provision of basic education because fully two-thirds of the world's illiterates live there.
More than 50 countries are preparing to allocate more UN funding to basic education in the framework of the 5th UNDP Programme Cycle now under way.	A problem confronting many developing countries, especially in Africa, is how to provide basic education for nomadic populations.
In Guinea, Mauritius and Portugal, national co-ordinating structures representing the major partners were created to monitor the implementation of EFA strategies.	Incentives to schools that encourage female enrolment: A Scheme for Attracting and Retaining Girls in School in Egypt.
Zimbabwe illustrates how distance education can be used for teacher training and upgrading.	The United States of America is an interesting example of a developed country where EFA ranks high on the government agenda.

The foregoing statements reflect that the responsibility of basic learning needs is not a monopoly of a single nation but the concern of all. It is indeed a common and universal responsibility and requires international solidarity and co-operation.

But the question is: What are the possible ways of strengthening international solidarity in the context of meeting basic learning needs? Refer to *EFA Framework for Action to Meet Basic Learning Needs,* paras. 41 and 42.

Activity 13.5

Individual Activity

The concept of solidarity at the group level is the focus of this activity.

The picture below illustrates this concept.

1. Look at the picture:

2. Now answer the following questions:
   - ❑   What do you see in the picture?
   - ❑   What are the men doing? What is their objective?
   - ❑   How are they achieving their objective?
   - ❑   What do you think would happen if they paddled in different directions? If there were less of them rowing the boat?

Comment

Perhaps you will agree that reaching the finishing line immediately would require that you work as one and the more hands that are working the faster the job gets done. If we take the various persons paddling to be the countries pursuing Education for All, and take reaching the finishing line to be the goal of Education for All, we can say that indeed there is strength when we synchronize our efforts. Proceed to Activity 13.6 to apply what you have learned in the previous activity.

Activity 13.6

Individual Activity

This is an activity in which you will indicate Helps and Hindrances, taking into consideration the requirements set out in this topic.

1. Considering your own locality, identify the helps and hindrances to meeting the four requirements that you have just tackled so that the Education for All vision can become a reality. Put these down in the appropriate columns of Tables A and B below.

2. In the second column of Table A, indicate how the forces for EFA can be strengthened in your own situation.

3. Do the same for Table B. Indicate what can be done to overcome the forces which are hindrances.

Table A.	Forces for EFA (Helps)	How I Can Increase (Helps)
1. developing a supportive policy context		
2. mobilizing resources		
3. building a national technical capacity		
4. improving international solidarity		
Table B.	Forces against EFA (Hindrances)	How I Can Overcome (Hindrances)
1. developing a supportive policy context		
2. mobilizing resources		
3. building a national technical capacity		
4. improving international solidarity		

By this time, you should have become aware of the overall requirements which will lead Education for All to become a reality.

Readings

Reading 13.1
Types of Resources

In most countries, the current levels and types of resources available to meet basic learning needs are simply not sufficient. New resources can be sought from three major sources: a broader government base of support; an increased financial effort due to expanded participation by non-governmental organizations, communities, families and individuals, including the teachers themselves; and increased – and more effective – support from external funding agencies.

The broadened base of government support can be achieved by increasing the proportion of the government budget allocated for education and, within the education budget, by increasing the proportion dedicated to basic education. In addition, many government departments other than the education ministry spend funds on basic education and skill development activities. Government departments responsible for agriculture, health, community or regional development, labour, defence, industry and other development activities need to co-ordinate their programmes with those of the formal and non-formal education providers. Larger allocations should be urged for basic education within the budgets of these other departments. Basic education should be viewed as part of a broadly defined human development strategy, not solely as a subsector of the formal education system.

However, government financing alone is unlikely to be a sufficient source of funds for basic education. Greater participation by the non-governmental members of this partnership can increase the level of resources available, and increase the relevance and effectiveness of the learning process. Whether through new organizational structures or through reorienting existing structures to include a basic education component, local and national partnerships can help provide materials, facilities and personnel to meet the basic education challenge. A special benefit of this broadening of participation is to focus greater public attention on educational issues and to establish a stronger societal commitment to the principles of the World Declaration.

Even with expanded government support and new collaborative partnerships, some countries will still have inadequate resources to meet the basic learning needs of their population. The least developed countries will simply not have the necessary human and financial resources to meet the quantitative demand and to enhance the quality of their basic education systems. Substantial external assistance, sustained over time, will be required.

What to do with the resources

Increased efficiency in the expenditure of basic education funds is one of the stronger arguments basic education advocates can make for increased allocations. Both government and taxpayers have a right to expect fiscal propriety and accountability. Waste and poor quality in basic education will lead to reduced support from the agencies that finance education and to reduced participation by the individuals who need educational services. A priority use of newly mobilized

resources must be to improve the efficiency of the education process and to promote accountability to pupils, parents, communities and government.

Teachers can contribute to increased efficiency in basic education not only through their teaching skills but also by improvising teaching materials and making good use of the environment as a source of learning aids.

Ways to generate resources

A number of advocates of education policy reform, including some aid agencies and international financial institutions, have in recent years concluded that additional resources for education will have to come from private rather than public sources in the developing world.

User charges and private provision are two possible options. There are three major arguments for the public provision of schooling. First, the benefits of education accrue not only to the individual, but also to society at large. Without public provision, some underinvestment in schooling would be likely, even among those who can afford to pay for it. Second, excluding those who are too poor to pay school fees goes against the basic human right of education for all. Third, private schooling would strengthen existing inequalities by giving privileged access to education and higher future incomes to those who are already among the better-off. These dangers weigh heavily against proposals to finance schooling privately.

Such considerations have led, in the majority of countries, to a gradual shift away from dependence upon philanthropic and private funding sources towards public provision. The fact is, however, that in a great many countries a mixture of public and private funding of schooling exists.

Public schools sometimes charge fees, albeit seldom sufficient to fully cover costs. Fees often decline as a proportion of unit costs at higher levels of schooling, which tends to have negative equity and efficiency consequences in view of the small proportions and higher income characteristics of the population enrolled at upper-secondary and tertiary levels.

The introduction of cost-recovery measures at higher levels of education, particularly if combined with fee reductions at primary-school level, could have positive equity and efficiency consequences. Additional resources for the expansion of primary schooling could be generated and the public subsidies to higher education, which at present benefit mainly the richer groups, would thereby be reduced. It would, of course, be necessary to ensure that the introduction of such fees does not reduce private benefits to levels that lead to a decline in absolute tertiary enrolment.

A more comprehensive option is broadening the base of the general tax system. Increases in the tax base and in the progressivity of the tax system will have to play a vital part in raising these resources in many countries. Unfortunately, it is widely believed that many low-income countries are approaching the limits of their taxable capacity.

Community financing is another option. A large number of countries have experimented with ways of passing some schooling costs to local communities. Rooted in traditions of self-help, such initiatives can often mobilize resources that otherwise would remain underutilized and they can engender the further commitment of parents (in terms of both time and interest) to the schooling of their children. The most common form of such community financing is the provision of

labour and local materials to reduce the capital costs of school construction or expansion. There are examples, however, of teachers' salaries being paid partially or entirely by the community, and of school books and equipment being similarly financed.

International funding agencies

The announcements by the World Bank, UNDP and UNICEF, at the World Conference on Education for All, that they will place a higher priority on basic education in their funding activities is encouraging. However, the role of bilateral donors will be crucial since a large share of their assistance is in the form of grants or concessionary loans.

Recipient governments must show that they give a clear priority to Education for All and that this is a priority for the Prime Minister and the Minister of Finance, not just the Minister of Education. The priority accorded to Education for All can be made evident in action plans of the type adopted by the Philippines. These plans should be comprehensive and include output targets for the year 2000. The specific interventions to be pursued should be made clear, along with proposed cost-savings, cost-recovery and budget re-allocation measures. Once these are defined, the residual requirement for external assistance can be specified in terms of how much is needed, for what purpose and in what forms. Such planning will enable donors to be brought into the development assistance dialogue earlier and the recipient country to be an equal partner in determining financial assistance. This approach also makes it easier for governments to co-ordinate assistance among donors.

Donors, for their part, should have education specialists on their staff and should encourage field offices to propose education projects and activities. Both debt-relief and sector-support programmes should be among the options considered to assist education. Donor support for non-governmental organizations can be especially important in the broad field of education.

The debt problem has three distinct components: (i) the loss of foreign exchange that occurs as a result of the debt-service burden; (ii) the proportion of government expenditure that must be allocated to the debt servicing; and (iii) the structural adjustment policies that are implemented by countries because of an inability to meet these obligations.

The use of debt-relief measures to resolve these problems can be successful, but so far such efforts have been costly in time and effort, and have not involved substantial amounts of debt reduction. UNICEF is working with the Inter-American Development Bank (IDB) to launch a debt-relief scheme for social investment in Latin America (the scheme is similar to one used by the Spanish Government to encourage cultural restoration activities). Funds would go to governments through IDB and would be used to buy back government debt at discounted rates. In this way, $100 million can be used to retire debt of $200 million or more, depending on the market value of the debt. The support by IDB would be linked to the government's agreement to release proportional amounts of local currency for increased investments in the social sector.

The UNICEF-IDB proposal is not yet funded. Even if it were, debt relief is only one factor, although a potentially useful one, in helping to free funds for Education for All. True debt relief will require long-term changes in the international economic system.

While debt relief or debt swaps are one way to free funding for education, much of the foreign assistance provided at present does not serve to reduce the existing funding gap. The current support for expensive overseas training, high-priced technical assistance or for commodities produced by the donor country often does little to help meet the financing needs. Recurrent costs are the greatest financing burden, and they are usually the item the multilateral and bilateral agencies are least willing to support. However, the move to sector funding and non-project assistance by some donors is a positive step towards reshaping the mode of financing to meet the real needs.

Funding agencies need to be convinced that debt relief now will not lead countries to fall into the same debt problems in the future. While generalizations are useful for aggregate estimates, each country has its particular situation and potential. Some debtor countries have no large defence budget to reallocate; some already depend on substantial domestic taxes and community participation. Finally, investments in education must be tied to investments in national development; otherwise unemployed graduates may offset the desired outcomes from Education for All. In short, education must be an investment, not a consumption activity.

In terms of structural adjustment effects, both the International Monetary Fund and the World Bank have repeatedly stated their support for the protection of social investment and of groups at risk within adjustment programmes. However, such conditions must be initiated and supported by the national government.

Adapted from: EFA Monograph III.

Reading 13.2
What do we Mean by Cost Effectiveness?

Although the proportion of public expenditure devoted to education varies widely between countries, those that are at present most educationally disadvantaged spend, on average, proportionately more on education than do other countries. Although there are important exceptions – particularly in the small number of countries where education accounts for only 10 per cent or less of public expenditure – in general, the most educationally disadvantaged countries are already spending as much as can be afforded from public revenues, even though enrolment ratios at primary level remain low.

The high costs of providing secondary and tertiary education relative to primary schooling, particularly in Africa, are evident. These cost differentials imply that, in Africa, one-fifth of public spending on education provides higher education for only 2 per cent of the eligible age-group. Primary schooling accounts for less than half of all education expenditure even though it is the only form of education – particularly in low-income countries – in which most people have a chance of participating.

A critical question, therefore, concerns whether these unit costs can be reduced in order to facilitate expansion of primary schooling in the context of the given financial and human resources. Two items dominate the determination of the unit costs of education: the salaries of teachers and the teacher/pupil ratio.

Salary decline is not the only means of reducing the amount that the average teacher is paid. Another means is to change the structure of the profession towards a more intensive use of lower-cost personnel. There are various ways of achieving this. In countries where salaries are tied to education or training qualifications, it may be possible to reduce the level of qualifications and/or the mix of personnel without significantly affecting teacher quality or performance.

For example, the Government of Senegal has progressively increased the proportion of 'assistant teachers' over the last few years. This is reported to have contributed to a reduction in unit costs with no noticeable negative impact on teacher quality. Colombia was able to reduce teacher costs in similar ways, by increasing the roles of 'teacher-helpers' in the Escuela Nueva programme. Not all countries are in a position to introduce such reforms; they would be inappropriate for countries in which the proportion of untrained or insufficiently educated teachers is already large. Elsewhere, however, there may be potential savings to be made.

The second major way of reducing the unit cost of schooling is by using teachers more intensively. One way of making more intensive use of teachers is to introduce some form of multiple-shift schooling. Under such arrangements, two or more entirely separate groups of pupils can use the same facilities during the same term, week or day. The most common double-shift system involves one group of pupils attending in the mornings and a second group using the same facilities in the afternoons, but there are many other variants.

Whether teachers' salary costs are reduced depends upon the particular system used. If each shift requires a different set of teachers, there would be no salary savings. Alternatively, if teachers are paid for the extra work they do, pro rata salary cost would be unaffected, although the number of teachers required – and thus housing and teacher-training costs – would be much reduced in comparison with single-session arrangements. Again, if teachers are paid more for two sessions than for one, but at a lower hourly rate, savings in both the number of teachers and in the salary bill can be achieved. In Senegal, for example, those teaching the second shift receive a 25 per cent supplement to their basic salary for a 48 per cent increase in hours worked, while in Ghana a 60 per cent allowance for double-shift teaching is paid.

As regards recurrent costs more generally, double-shift schooling usually involves economies in the employment of clerks, cleaners, and maintenance and security workers. Although the unit recurrent costs are not halved by double-shift arrangements, because the more heavy use of plant involves higher maintenance expenditures over time, the economies can be significant.

The most substantial cost-savings from multiple-shift teaching are in the area of capital costs. Major savings in land, equipment, libraries, laboratories and classrooms can be made.

Another means of using teachers more intensively is to increase class size. Research in some developed countries shows that variations in class size from twenty-five to forty pupils have no effect on the performance of children in achievement tests. At the primary level, classes of up to forty-five children are judged to be tolerable, though undesirable. Whatever the reported average figure for class size at the national level, however, there is always a wide dispersion around the mean. Attempts to raise class size should obviously focus upon those schools with small numbers of children per class, while reducing, wherever possible, the number of overcrowded classes.

The counterpart of using teachers more intensively is achieving a more effective use of pupil time. The unit cost per graduate from each level of the school system is the relation to the average time it takes for a child to graduate. Reducing the average time-span by reducing attrition (drop-out) and grade repetition necessarily reduces unit costs.

Children who leave school before the end of defined cycles are often described as drop-outs. Whether dropping out is indeed more 'wasteful' than leaving at an established exit point is debatable. Drop-out is wasteful only if the benefits of schooling are disproportionately bunched at the end of each particular cycle (for example, because of degree certification). Drop-out is not wasteful if the benefits of schooling accrue on a pro rata basis (assuming a threshold to maintain them is reached). However, this does not apply to skills such as literacy and numeracy that take several years to acquire. At later points in the primary cycle when basic skills have been acquired, early departure may affect primarily the social benefits of Schooling for All rather than economic efficiency.

The experience of a number of countries demonstrates that, by using local rather than imported materials and by using low-cost, low-maintenance construction technology, considerable savings can be made. Using this approach and increasing the involvement of local communities in construction work has reduced capital costs. Both capital and recurrent costs can also be affected by reducing the use of boarding schools where they are not socially or pedagogically essential.

If boarding schools are necessary, they require careful planning to minimize costs; where they are not necessary, they represent a poor use of scarce resources. The main reason for boarding programmes is that in some countries only a fairly small proportion of primary leavers continue into secondary school, and this may make it difficult to provide cost-effective day schools in all rural areas. Boarding facilities are therefore necessary if children from rural households are to gain access to secondary school.

To some extent, then, the higher unit costs of secondary schooling in poorer countries are an inevitable consequence of their lower secondary-enrolment ratios. While this situation cannot be changed overnight, care is needed to reduce dependence on boarding schools as secondary education expands and as day-provision becomes increasingly viable. Eligibility for boarding status should be sharply restricted to those from isolated communities; children from urban households should not, under normal circumstances, be allowed to board.

Changes in the structure of the education system could release some resources for progress towards Schooling for All. Certain reforms can expand access to primary schooling and enhance achievement at realistic levels of cost. The structural changes considered here can be broadly classified as follows: changes in the length of different education cycles; changes in the age of entry to formal schooling; organizational and pedagogical reforms; and developing links between education and productive work.

Source: EFA Monograph III.

The Way Ahead

UNESCO/D. Roger

TOPIC *14*

CONTENTS

The Way Ahead

Introduction

Finally, you have reached the topic that will pave the way ahead. This will require your continuing involvement in the Education for All initiative. You are, by this time, not only aware of the need to do something for this movement, you have already prepared some concrete and implementable plans and this will be the beginning of your contribution to the realization of a gigantic and global yet very human undertaking. The preceding topics equipped you with some of the much-needed knowledge, skills and orientation that will surely guide you in looking further ahead in this Education for All journey.

This final topic provides you with the opportunity to form a complete picture of what you have just been through in this course – a summary or integration of your learning. Topic 14 then lets you focus on yourself the teacher, what else needs to be done to improve your craft and what more you can do for Education for All to become not just a dream, but a reality.

Learning Outcomes

By the end of this topic you will have:

❑ considered what steps need to be taken to implement the Education for All goals in a particular national/regional/local setting;

❑ considered the formulation of intermediate goals as specific targets to be included in national and subnational plans for educational development;

❑ considered, in particular, the implications of these goals for teachers and teacher-educators in terms of the new roles, new content and innovative teaching strategies that will be required if basic learning needs are to be met.

Integrating our Learning

Activity 14.1

Preferably Group Activity

This first activity may be done as a group or individually. However, you will enjoy it more if you do this as a group as you will be reviewing your learning in a creative way.

Look at the picture on page 3. What do you see? Does it look familiar? It should be because you saw it in Topic 1 in the video. This tree is the EFA tree. It symbolizes the totality of your learning from this course, the fruits of your labour so to speak. The parts of the EFA tree have to be labelled and you will do this yourself.

1. Focus on the roots. Note that there are 13 of them, each one representing a topic in this course. Can you remember the thirteen topics? Write these down in the roots.

2. Rising from the roots, stop for a while at the tree trunk. What is the function of the trunk of a tree? We can say that the trunk supports the tree or that it passes on the nutrients from the roots to the rest of the tree. What could the trunk be in so far as Education for All is concerned? If we take it to be the thrusts, what are these? Put these down in the trunk. If you wish to make your own analogy, do so.

3. Now let us go to the fruits. Note that there are three kinds of fruits in the tree. Write down the knowledge that you gained from this course in the circular fruits, the attitudes and values you now hold in the heart-shaped fruits, and the skills you acquired in the oblong fruits.

4. Now complete the picture by writing in the other unlabelled parts – sun, rain, soil – what you think these represent in the Education for All movement.

At last your picture is complete! The EFA tree symbolizes the learning journey you have just been through.

Comment

The fruits that you have labelled in the EFA tree are valuable and you will carry them with you long after this course. However, they will be of little use if you are unable to translate into action the knowledge, skills, attitudes and values, and whatever desires were awakened in you to contribute to the effort. Before you proceed to Activity 14.2, read the issues that need to be considered for your own development as a teacher in Reading 14.1, The

Teacher: A Key Actor in the Education for All Movement (page 6). The key issues raised are:

❑ there is a need to augment the capabilities of teachers through upgrading their performance through pre-service and in-service training;

❑ there is a need to re-conceptualize the time frame for teacher preparation – regarding it as a continuum, beginning with the student teacher and ending only when the teacher retires;

❑ there is a need to give attention to the professional status of teachers, both directly and through teacher associations.
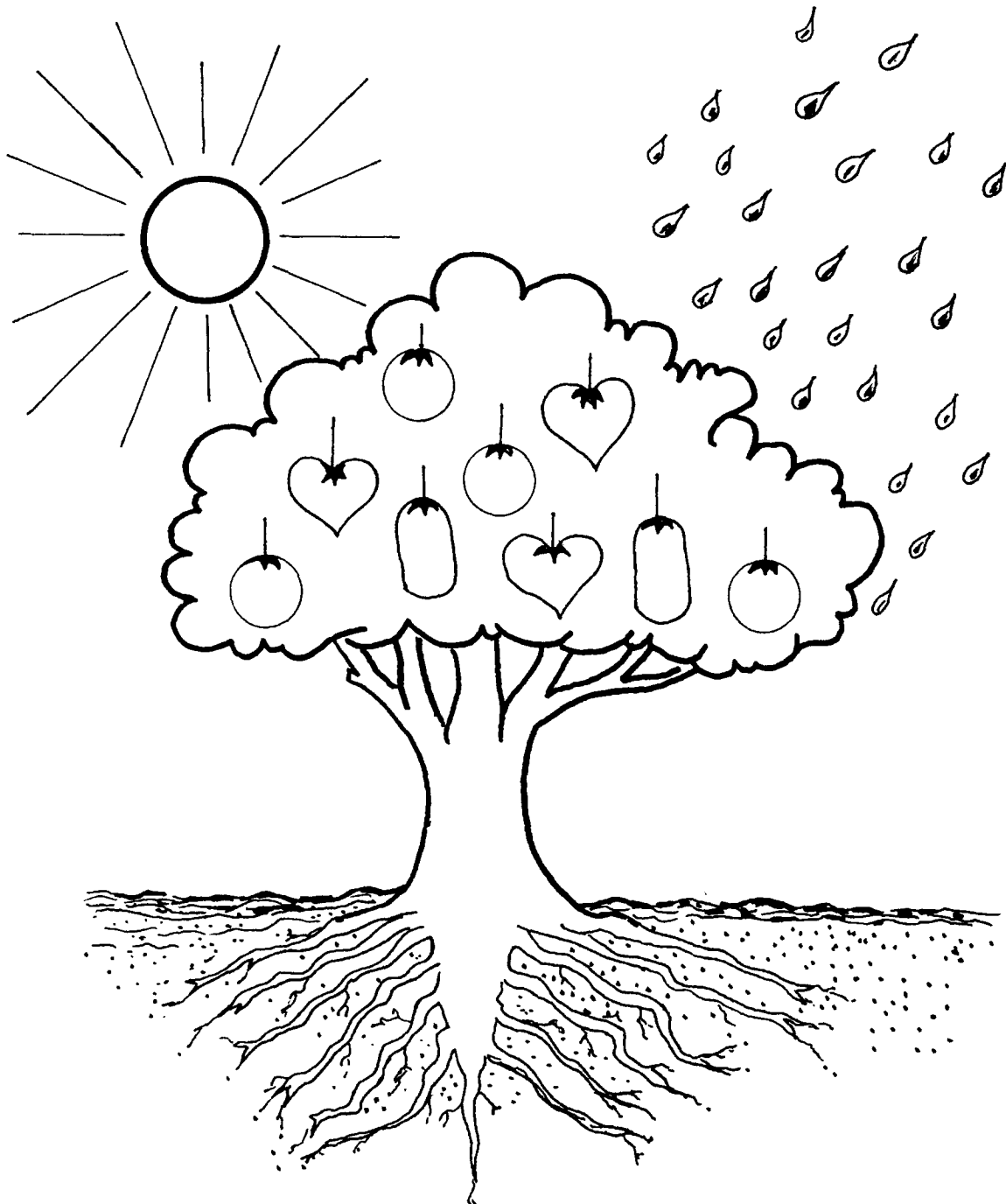
You need not wait for the future to do something for EFA. Complete the course by doing the following activities:

Activity 14.2

Individual Activity

What Can I Do for EFA? Guide questions are provided below. You are encouraged to complete this 'from your heart' for this concerns you as a teacher playing an important role in the EFA movement.

1. Given all that you have learned in this course, identify at least three needs pertaining to your development as a teacher in the light of EFA. These should be something you can act on soon. The readings on pages 6 to 9 may trigger some of these needs for you (see Reading 14.2, Formulation of Intermediate Goals as Specific Targets, Reading 14.3, The Status and Roles of Teachers in Education for All, and Reading 14.4, The Challenge to Teachers). Use the format below.

2. In the second column, reformulate the needs as objectives.

3. In the third column, identify specific steps that you could take to reach these objectives.

4. In the fourth column, indicate the resources you would need to undertake the steps in column 3.

5. Finally, set a timetable for each activity/step that you have identified.

1. Needs	2. Objectives	3. Action Steps	4. Resources Needed	5. Timetable
SELF				

Activity 14.3

Group Activity

The plans you have just made are to be integrated with those of your co-teachers in this activity.

1. Meet with your co-teachers from the same school who are taking this course. Share your plans.

2. Pool your ideas and draw up one joint plan. This will probably require you to prioritize the needs.

3. Discuss the implications of such an activity conducted at the national level. What would happen if all teachers pursue their plan?

4. Submit your plans to your school Head/Principal for approval and support.

What our School can do for EFA

In the next activity you are asked to formulate proposals which your school can consider to improve the education system and implement the goals of EFA.

Activity 14.4

Group Activity

This activity requires you as a group to arrive at a consensus as to priority needs/issues of the community that must be addressed by the education system; proposed solutions, action steps and the role of teachers. This leads to a set of recommendations that your group will submit to the school Head/Principal.

1. Meet with other teachers from the same school who are following this course. Together with them:

   ❑ identify issues/needs in your community that must be addressed by the education system and therefore must be considered in the formulation of the plan for educational development;

   ❑ propose solutions to address these issues/needs;

   ❑ identify action steps to carry out the strategies proposed;

   ❑ identify your role in addressing these needs.

2. Together with your colleagues, consolidate your recommendations and submit them to your school Head/Principal, using the four headings below.

3. In doing this, be guided by Readings 14.1 to 14.4.

Proposal for Improved Education System

   1. Educational Issues/Needs of the Community
   2. Proposed Solutions
   3. Action Steps
   4. Role(s) of Teachers in Addressing Identified Needs

The rest is up to you – all you have to do is take the next step and implement your plans. EFA challenges you!

Readings

Reading 14.1
The Teacher: A Key Actor in the Education for All Movement

You have read at the start of this course that you are a key actor in the Education for All movement. In fact, your own development as a teacher is one of the concerns of this movement.

Foremost are these issues:

❑ There is a need not only to increase the number of teachers but to augment the capacities of each individual teacher through upgrading of performance by means of more effective pre-service and in-service training and improved school management. There is a need to emphasize process skills and learning to learn, as well as more integrated approaches to subject matter and appropriate use of educational technology.

❑ There is a need to re-conceptualize the time-frame for the preparation of teachers. Teacher development needs to be considered as a continuum, beginning with the student teacher and ending only when the teacher retires. This, in turn, is affected by the number and quality of teacher-educators who carry the heavy responsibility of training and re-training millions of teachers all over the world.

❑ There is a need to give attention to the professional status of teachers if quality education is to be achieved. Their conditions of service and the effectiveness of teaching are closely interrelated. There is a need in many countries to rehabilitate the teaching profession by motivating the teachers with better conditions of service and social status. Encouragement of teachers directly, and through their associations, in the framing of educational policies and in the preparation, implementation and evaluation of innovation is likely to lead to significant improvement in the quality of education.

Reading 14.2
Formulation of Intermediate Goals as Specific Targets

To prepare you further in making Education for All a reality at the national/subnational levels, here are some guidelines that may help you in the formulation of intermediate goals as specific targets.

❑ The ultimate goal of Education for All is to meet the basic learning needs of all children, youth and adults. The long-term effort to attain it can be more effectively maintained if intermediate goals are established and progress towards these goals is measured. In establishing such intermediate goals, the objectives of the World Declaration on Education for All as well as the overall national development goals and priorities may be taken into account.

❑ Intermediate goals can be formulated as specific targets which:

❍ specify expected attainments and outcomes with regard to terminal performance specifications within an appropriate time-frame;

❍ specify priority categories (e.g. the poor, the disabled, out-of-school youth/adults, etc.);

❍ are formulated in terms such that progress towards them can be measured and observed;

❍ represent a 'floor' but not a 'ceiling' for the continued development of education programmes and services.

❑ Time-bound targets convey a sense of urgency and serve as a reference against which indices of implementation and accomplishment can be compared. Targets can be reviewed and updated as societal conditions change. Linking targets to specific social groups or population categories and priority categories of learners can help maintain the attention of planners, practitioners and evaluators in meeting their needs. Observable and measurable targets assist in the objective evaluation of progress.

❑ Targets need not be based solely on current trends and resources. Initial targets can reflect a realistic appraisal of the possibilities to mobilize additional human, organizational and financial capacities within a co-operative commitment to human development.

❑ Targets may be set in terms of these proposed dimensions:

❍ expansion of early-childhood care and developmental activities;

❍ universal access to, and completion of, primary education, or whatever higher level of education is considered 'basic'; improvement in learning achievement such that an agreed percentage attains or surpasses a defined level of learning achievement;

❍ reduction of the adult illiteracy rate with an emphasis on female literacy to reduce the current disparity between male and female literacy;

❍ expansion of provisions of basic education and training, with effectiveness assessed in terms of behavioural changes and impact on health, employment and productivity;

❍ increased acquisition of knowledge, skills and values required for better living and sound and sustainable development by individuals and families with effectiveness assessed in terms of behavioural change.

Adapted from: EFA Framework for Action to Meet Basic Learning Needs, paras. 4 to 8.

Reading 14.3
The Status and Roles of Teachers in Education for All

Four major considerations that should guide discussion of the status of teachers and how it influences the roles they play in achieving the goal of Education for All:

1. There is general agreement concerning the deterioration in the conditions of teaching in many countries over the last decade.

❑ This is particularly true in the least-developed countries where deterioration severely limits the ability of teachers to fulfil their responsibilities. These conditions include low pay and pensions, and little or no training and instructional support.

❑ The conditions of teachers and the effectiveness of teaching are closely related.

❑ The effect of this decline in working conditions is a decline in the respect given to the teacher – respect which is necessary in the interaction between pupils and teachers.

❑ Due to poor economic conditions and poor working relations with some government authorities, teacher unions have often not been successful in their demands.

❑ It is necessary to recognize teachers as intellectual workers deserving fair living conditions, social rights and academic freedom.

2. Even as schooling is given high priority in this century due to the demand for an educated population, budget allocations to schools are being allowed to deteriorate.

❑ Since teachers play a central role in educational performance, they must receive improved training and status. For this to happen, the teaching profession must be renewed and reinvigorated.

3. The task of Education for All cannot be achieved if the financial, educational and political prerequisites of the task are disregarded.

❑ 'False solutions' to the problem of human resource development have been seen in the last two decades:

○ the view that education has received excessive resources;

○ the assumption that reducing teacher freedoms and union rights will somehow reduce the cost of education;

○ the assumption that quick and incomplete pre-service training is a way to accelerate the production of new teachers;

○ the replacement of teacher quality with the application of specially designed learning materials and instructional technology;

○ reduction of instructional content to fit the unqualified teacher's competence.

'False solutions' to the problem of human resource development must be avoided and a teacher-centred strategy should be pursued that assures children a competent and motivated instructor in an appropriate learning environment.

4. A new role for teachers needs to be defined.

❑ The role of teachers is evolving; in addition to transmitting information and ideas, teachers need to become qualified professionals closely linked to the communities in which they work.

❑ The new role of the teacher will require that greater attention be paid to the full range of intellectual, ethical and technical needs of society.

❑ There needs to be a greater emphasis on the ethical dimensions of the teaching profession.

❏ Teachers should do more than transmit knowledge. They should facilitate new ways of thinking about such topics as human rights, international understanding and the environment.

❏ Teachers should be a living example for pupils and the community.

❏ Effective teachers should perform as partners with pupils, parents, administrators and the community.

Source: EFA Monograph III.

Reading 14.4
The Challenge to Teachers

Removing ignorance and eradicating illiteracy will be primarily the responsibility of teachers. This is a task they face amidst numerous constraints. These constraints include:

❏ poor facilities;

❏ scarce materials and equipment;

❏ inadequate salaries;

❏ low status;

❏ large numbers of pupils of different ages;

❏ pupils from poor families who are inadequately fed and/or have health problems, are required to help with household chores and even earn wages, have parents who are themselves illiterate or have no parents at all.