



UNESCO/DAKAR

**TRAINING OF EDUCATIONAL PERSONNEL
AND THE PRODUCTION OF EDUCATIONAL
MATERIALS IN AFRICA**

by
Amara FOFANA

**PROJECT IFOMA (435/RAF/10)
UNESCO/SPANISH GOVERNMENT COOPERATION**



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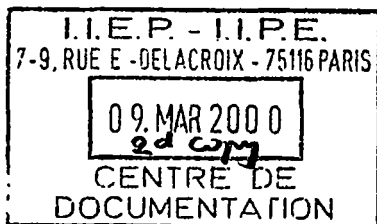


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The training of educational personnel and the production of educational materials in Africa

by Amara Fofana



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PREFACE

The present publication is the synthesis of three years of fruitful cooperation between the UNESCO Regional Office in Africa (BREDA) and the Government of Spain in implementing the project designated as IFOMA/435/RAF/10, Innovation - Training - Educational Materials. The project is a contribution of the Spanish Government to the Regional Programme for the Elimination of Illiteracy in Africa.

The African countries, in the wake of their independence, are striving towards the renewal of their educational systems so as to more fully reflect the socio-economic realities and cultural values of their countries. The various educational innovations that have been initiated in order to attain these objectives have not always been properly exploited or properly systematised. This is the case for example with Education and Productive Work, Environmental Education, Population Education, and Education for Improving the Quality of Life. Also, in a number of African countries, many women are not able to pursue their training beyond the level of the primary school. It is of importance therefore to identify, for these young women, new structures for the acquisition of knowledges and of training that would enable them to prepare for entry into active life and for a more effective participation in the life of the communities to which they belong. This is one of the objectives envisaged by the project IFOMA.

Operational since January 1989, the project IFOMA (Innovation - Training - Educational Materials) is a project of regional cooperation, for the training of educational personnel and production of materials in the following fields :

- Improvement of the liaison between education and the world of work, especially in rural areas
- Education for improving the quality of life and of the environment.

For this to happen, it is necessary to organize a large number of training activities, and to work in four languages (French, Spanish, English and Portuguese) in cooperation with specialists from fourteen Sub-saharan African countries. The financial contribution of the Government of Spain towards

the training programmes (1989 - 1993) has been more than four hundred and fifty thousand United States dollars. (USD 450,000.00).

In the first part of this present document, an analysis is given of the principal activities of the project and the results at the regional level in each of the countries concerned.

The success of the actions undertaken have been confirmed by a number of tripartite reviews of programming and evaluation, and this success has led to an extension of the impact of the project to other African countries, particularly those countries whose official language is Portuguese.

In the second part of the work, papers by BREDA specialists are reproduced which define ideas, concepts and also explain the methodology for the execution of the programme. The thinking of these specialists has greatly contributed to an excellent understanding of the field of activity of the project IFOMA and its implementation.

The presentation as given in this present volume seeks to provide answers to the following questions :

- How did the project IFOMA come about ?
- What are the objectives as well as the modalities of implementation ?
- What actions has it been possible to undertake up-to-date within the project ?

We hope that these questions will be answered by a reading of the text.

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I

**SYNTHESIS OF THE ACTIVITIES
OF IFOMA PROJECT**

INTRODUCTION

Most African countries have attempted, since they attained independence, to transform and develop existing educational systems so as to adapt them to socio-economic and cultural realities as well as to the needs and aspirations of their peoples.

Thus educational reforms were put in place and they generally resulted in innovations related to curriculum content, methods, personnel and the administration of these educational systems.

However, innovations which took place within the framework of these reforms did not always produce the expected results in particular as regards the introduction of productive activities into education, environmental education, popular education and education for improving the quality of life.

Within the framework of its Regional Programme for the Eradication of Illiteracy in Africa, UNESCO, especially through its Network of Educational Innovation for Development in Africa (NEIDA) involved itself in the improvement of the teaching of the new curricula introduced into the educational systems. It is within this context that the Project IFOMA was prepared by UNESCO in cooperation with the Spanish Government.

I. BACKGROUND TO THE SPANISH GOVERNMENT-UNESCO COOPERATION IN AFRICA

1. At the twenty-fourth session of the General Conference, the permanent delegation of Spain to UNESCO informed the Education Sector of the wish of the Spanish authorities to contribute to the implementation of the Regional programme for the Eradication of Illiteracy in Africa.
2. Following this desire for cooperation, and at the invitation of the Spanish Government, the Director of the Dakar Regional Office undertook a mission to Madrid from 24 to

29 April, 1988 during which he held discussions with the Spanish Minister of Education and Science regarding Spanish Government participation in some African regional programmes.

3. By letter dated 6th July, 1988, the Spanish Minister of Education, Science and Sports communicated the intention of his Government to finance, to the tune of US\$300,000, a UNESCO regional project on innovation in teacher training and the preparation of educational materials production.
4. From 14 to 17 November, 1988, a Spanish Technical Mission comprising Mr. Emilio Garcia-Prieto, Deputy Director-General for International Cooperation at the Ministry of National Education and Mr. Menendez-Pidal Adviser to the Spanish Permanent Delegation to UNESCO, visited Dakar to finalize the project document. UNESCO, for its part, was represented by Mr. Francisco Carrillo, Chief ED/UCE and the Dakar Regional Office team.

Mr. Amara Fofana, UNESCO Programme Specialist, was entrusted with the task of coordinating and monitoring the project while Mr. Antonio Amor, Inspector, was appointed by the authorities of the Ministry of Education and Science to liaise with the IFOMA Programme.

5. The IFOMA Project Tripartite Review Meeting was held in Dakar, Senegal, from 21 to 23 February, 1990. This meeting brought together representatives from participating countries and those of the Spanish Government namely Mr. Jesús Obregon Ministerial Adviser to the State Secretariat to International Cooperation in Madrid and Mr. Menendez-Pidal, Adviser to Spain's Permanent Delegation to UNESCO in Paris, while UNESCO was represented by the Director of the Dakar Regional Office and his colleagues including Mr. Francisco Carrillo, Head of the Education Coordinating Unit in the Education Sector.

6. From 28 May to 1 June, 1990, a mission composed of Mr. B. Haidara, Director of the Dakar Regional Office and Mr. F. Carrillo, Chief of ED/UCE, left for Spain to discuss with the authorities of the Ministry of Education and Science and of the Spanish Agency for International Cooperation (Ministry of Foreign Affairs) the possibility of extending the Spanish Government's contribution beyond 1991 for the second phase of the IFOMA Programme, which was to be a follow-up to the activities undertaken during the first phase.
7. From 18 to 25 January, 1991, a Sub-regional Training Workshop for English-speaking countries of IFOMA was held in Freetown, Sierra Leone. The Spanish Ministry of Education was represented at this workshop by Mr. José Asun Jordan of the "Dirección Provincial de Education (Provincial Directorate of Education), Paseo Isabel la Católica, 750009, Zaragoza, who made a very significant contribution to discussions at the workshop.
8. At the Tripartite Review organized in Dakar (29 - 31 July, 1991) the Spanish side was represented by Ms. Paloma Topete, Technical Adviser to the Ministry of Education and Mr. José Manuel Jordan, Educator of the Provincial Directorate of Education of Zaragoza.
9. From 2 to 13 November, 1992, a Regional Seminar for the synthesis of project activities was held in Nairobi, Kenya, in cooperation with the Kenyan Institute of Education. The seminar brought together representatives from 12 countries. Spain was represented at this important meeting by Mrs. Elena Angulo, Adult Education Specialist, Mr. Calvo, Spanish Ambassador to Kenya, graced the opening and closing ceremonies with his presence.

II. DESCRIPTION OF THE PROJECT IFOMA

The acronym IFOMA (Innovation - Training - Educational Materials) indicates the project's concern with innovations in training of educational personnel and the production of educational materials in Africa. It was designed to allow for

the analysis of experiences and for the exchange of ideas between specialists in the implementation of innovations in the following field :

- improvement of the links between education and the world of work, especially in rural areas ; .
- education for the improvement of the quality of life and the environment.

The IFOMA project jointly developed with UNESCO has been fully funded by the Spanish Government to the tune of US\$450,000. By this means the Spanish Government is making a worthy contribution to the implementation of the Regional Programme for the Eradication of Illiteracy and the promotion of basic education in Africa.

Objective of the Project

General Objective

The long term objective of the project is to improve curricula adapted to the socio-economic and cultural realities of the African peoples in order to enable them to meet their needs, improve the quality of life , and participate more efficiently in development.

Specific Objectives

The short term objectives of the project are :

- a) to develop a methodology that will enable teachers and other educators to teach efficiently in certain selected areas, these being :
 - the linkage between education and the world of work ;
 - education for the improvement of the quality of life and of the environment;
- b) to develop a training programme that would enable teachers better to integrate these educational dimensions into their teaching ;
- c) to train a group of teacher trainers from countries participating in the project, so that they could undertake the training of other trainers ;

- d) to prepare pilot tests and publish educational materials such as modules, evaluation instruments, guides, reference materials for purposes of this training ;
- e) to set up a permanent mechanism for the exchange of information and experiences in the areas concerned.

In brief, the objective of IFOMA is not so much a change of contents as a global change of perspective in both formal and non formal education. As regards the formal system, the purposes is not so much to add new subjects to adopt a more relevant approach to new content already introduced or about to be introduced in teaching.

With non formal education, the purpose is to arouse in the people concerned new behaviours consonant with the needs of a changing society and conducive to a better use and management of resources.

Fields and Types of Activities

In order to reach these objectives, 14 African countries South of the Sahara were selected among those which were already conducting innovations in the chosen areas and which also have structures for implementing the project. These were :Benin, Botswana, Burkina Faso, Cape Verde, Congo, Guinea-Bissau, Equatorial Guinea, Kenya, Liberia, Mali, Rwanda, Sierra leone, Tanzania and Togo.

The two areas of activity selected for the project were :

- the linkage between education and the world of work ;
- education for the improvement of the quality of life and the environment.

The activities of the project are axed along two principal lines , which are:

- the training of teacher trainers and other educators in the above-mentioned areas ;
- development of educational materials for the selected innovations.

The project's strategy is based on the need to obtain the highest possible multiplier effect in the shortest possible time.

Modalities for project implementation

The IFOMA project operates on the basis of two-fold mechanism :

At the Regional level : The Technical Secretariat

The Technical Secretariat is located within the UNESCO Regional Office under the responsibility of the specialist of the programme "Education and the World of Work". This secretariat functions in close collaboration with the technical secretariat of the Regional Programme for the Eradication of Illiteracy in Africa..

At the National level

In each member country of the project, an "IFOMA Technical Committee" has been set up by a National Coordinator appointed by the national authorities. At the national level, appropriate institutions have been entrusted with training programmes as indicated below.

- in Benin, the National Institute for Training and Research in Education ((INFRE), Porto Novo.
- in Botswana, the "Curriculum Development Unit", Gaborone.
- in Burkina Faso, the "Pedagogical Institute of Burkina (IPB)", Ouagadougou
- in Cape Verde the "Project for the Renewal and Extension of Basic Education", Praia
- in Congo, the "National Institute for Pedagogical Research (INRAP)", Brazzaville
- in Guinea Bissau, the "National Institute for the Development of Education (INDE)", Bissau
- in Equatorial Guinea, the "Higher Teachers Training College", Malabo
- in Kenya, the Kenya Institute of Education (KIE), Nairobi
- in Liberia, the Zorzor Rural Teacher Training Institute (ZRTTI), Zorzor, Liberia
- in Mali, the "National Pedagogical Institute (IPN)", Bamako
- in Rwanda, the " National Pedagogical Institute", Kigali
- in Sierra Leone, the Bunumbu Teachers College, Kenema
- in Tanzania, the Kleru Teacher's College, Iringa

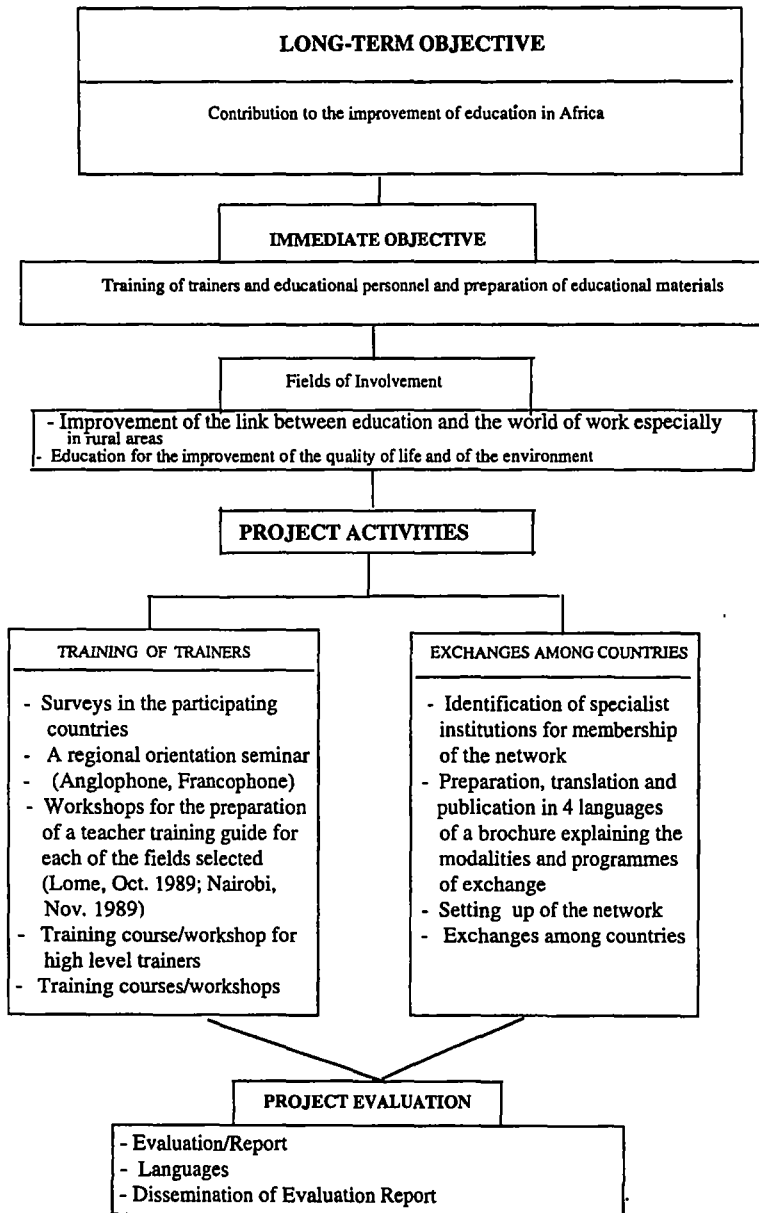
- in Togo, the "Directorate of Permanent Training Action and Pedagogical Research (DIFOP)", Lomé

Expected Results (first phase)

Activities will be carried out to attain the following objectives during a two year period :

- a) 50 trainers of trainers and 250 trainers to have been trained in two areas selected by the project: namely improvement of the link between education and the world of work and education for the improvement of the quality of life and the environment.
- b) Appropriate educational materials (e.g. textual/non textual materials, teachers' guides) related to the teaching of each the selected areas in basic education to have been produced.
- c) A mechanism to have been set up to ensure the regular exchange of information between African countries in the field of concern.

IFOMA PROJECT



Synthesis of the Activities of IFOMA Project



PARTICIPATING COUNTRIES "IFOMA" PROJECT

N°	COUNTRIES	POPULATION	SCHOOLING RATE IN PRIMARY LEVEL IN %	ILLITERACY RATE 15 YEARS OLD AND ABOVE IN %	
1	BENIN	4 050 000	65	74	
2	BOTSWANA	1 107 000	104	29	
3	BURKINA FASO	6 942 000	32	87	
4	CAPE VERDE	326 000	108	53	
5	CONGO	1 740 000	100	37	
6	EQUATORIAL GUINEA	392 000	(1983)1 08	(1980) 63	
7	GUINEA BISSAU	890 000	(1983 62)	69
8	KENYA	20 600 000	94	41	
9	LIBERIA	2 191 000	(1979) 76	65	
10	MALI	8 082 000	(1983) 23	83	
11	RWANDA	6 070 000	64	53	
12	SIERRA LEONE.	3 602 000	(1982) 58	71	
13	TANZANIA	22 499 000	72	54	
14	TOGO	2.960.000	95	59	

Except where otherwise indicated, the data refers to the year 1989.

Source: UNESCO/BREDA/EPA

III. 1989 PROJECT ACTIVITIES

A survey by questionnaire and two regional public awareness seminars were the first activities of the project. These activities led to a better understanding of the problems as they occur in the participating countries, and facilitated a better orientation and organization of the task of integrating these new educational dimensions into the educational systems.

During that year, two sub-regional workshops for the development of teachers guides were also organized.

The Questionnaire

The questionnaire which was sent to the 14 countries participating in the project had the following objectives:

- to sensitize the countries concerned as regards the IFOMA project
- to gather maximum information on the educational system of these countries in relation to the programme areas of the project.

Eight countries responded (57%). These countries are geographically located in the West, Centre and East and belong to four different language groups (English, French, Portuguese and Spanish). They are Benin, Congo, Equatorial Guinea, Guinea Bissau, Liberia, Mali, Sierra Leone, Tanzania.

It appears from the analysis of the questionnaire responses that:

- a) Activities of on-going national projects are mainly located in the rural areas and , deal predominantly with relations between education and the world of work with agriculture as a predominant field, followed by handicraft, health, hygiene, art and culture.
- b) These activities are mainly undertaken within the formal educational system (primary-secondary).
- c) These projects are generally in the interest of the national public and are implemented by educational institution. Professional control is either by a technical committee or by the governing institution itself.

- d) The impact of these projects is multiple: better linkage between school and community, skills development, promotion of productive work at school, better translation from school to active life etc...

Information Programmes at the Regional Level

Two regional seminars aimed at generating public awareness of the IFOMA Project were organized at BREDA, Dakar in 1989.

- a) A regional sensitization seminar was organized from 24 to 27 April 1989. It brought together BREDA specialists as well as 10 participants from Benin, Burkina Faso, Equatorial Guinea, Congo, Liberia, Mali, Sierra Leone, Kenya, Tanzania and Togo.
- b) A sensitization seminar, intended mainly for Portuguese and Spanish-speaking African countries was organized from 8 - 20 October, 1989. It brought together 5 participants from Cape Verde, Guinea Bissau, Equatorial Guinea and Mozambique and São Tomé and Príncipe. The last two were not yet participating in the project but were present in Dakar on the occasion of a NEIDA meeting.

The objectives of these seminars were:

- to make known the objectives of the project, what the participant countries can expect from it and what contributions they can make ,
- to direct and plan the totality of the activities of the project

During the first seminar, the proceedings were as follows :

- the presentation of documents by BREDA specialists on the programme areas of the project. Each specialist according to his field of competence, tried to inform participants of the relations between the activities of the Regional Office and those of the project
- the presentation of national experiences by participants
- the definition of guidelines for implementing the activities of the project.

Summary of contributions by BREDA specialists

These contributions aimed at highlighting the multidisciplinary aspect of the programme areas of the project.

a) *the liaison between education and the world of work: lessons to be drawn from some African experiences.*

Here the emphasis was laid on:

- the objectives of education linked to productive work. These objectives were:
 - to make pupils and students aware of the values of different types of work
 - to promote community development
 - to improve the prospects for employment and productivity
 - to promote a better understanding of economic and social relationship
- experiences carried out in the field of education linked to work in Sierra Leone, Kenya, Tanzania, Benin, Nigeria as well as obstacles in the implementation of various projects (shortage of funds, insufficient training of teachers, lack of suitable educational materials and equipment for the training) were underlined as well as the opportunities offered in this connection such as IFOMA.

b) *Education for improvement of the quality of life and the environment: Population education.*

After analysing UNESCO's contribution to education for the improvement of the quality of life through activities of its population education programme, the presentation dealt essentially with:

- the general distrust of population education, thus being considered as a solution found by Westerners to solve the problem of the high growth rate of population in Africa :
- the goals and objectives of Pop Ed at different levels :
- at the micro-level (individual and family well-being) for the improvement of the quality of life through sex or family life education
- at the macro-level (quality of individual and community life), to preserve nature and create favourable conditions for the population and for the conservation of the national environment

- the present state of population education programmes in Africa with the list of the various population education projects managed by UNESCO;
- the difficulties encountered in implementing the programmes at various levels
- at the national level: lack of material and human resources overloaded programmes and timetables, communication problems
- at the UNFPA level: long delays in approving projects
- at the level of UNESCO : difficult budgetary management, communication, and coordination problems, over-burdened specialists and services.

c) The Context of the Planning of Innovations

This presentation dealt with

- i) Characteristic features in the educational field :
 - diversification: a variety of the educational levels, target populations, and actors (teachers, promoters)
 - stagnation of quantitative growth in the formal system and sometimes reduction in school enrolment rates in the context of the economic crisis
 - poorer quality of education due to lack of material and human resources and to the problem of lack of salaried employment
- ii) The dimensions of innovation highlighting four models of innovative projects:
 - need for radical change
 - the "crusade" in exceptional political circumstances
 - "controlled" expansion through pilot projects
 - "small scale innovation" with a slow cycle
 - areas of innovation selected for the IFOMA project.
- iii) The planning of innovations, consisting of harmonizing the quantitative approach (enrolment planning) with the qualitative approach (curriculum planning) for better returns. In this respect a planning process in five stages was proposed, which could aid planners in their task:
 - a) diagnosis of the situation
 - b) definition of objectives
 - c) preparation of a strategy

- d) detailed programming and implementation
- e) establishment of a system of evaluation.

d) IFOMA project and new orientations in teacher training

This presentation laid emphasis on :

- The characteristics of teacher training in relation to the selected innovations: :
 - a) in the formal system a more pertinent approach to the new content already introduced into education
 - b) in the non-formal system, induce the populations concerned to adopt new behaviours in conformity with the needs of the society
- the educational objectives expected from IFOMA. This project should lay emphasis on attitudes and skills rather than on knowledges
- the present educational situation marked by a conservatism which enhances scientific training based on knowledge to the detriment of pedagogic training attitudes, and skills
- teaching methodology which should be reconsidered so as to base it firmly on a multidisciplinary and intersectorial approach.

This document also defined strategies for :

- harmonizing pre-service and in-service training by introducing innovations in the pre-service training
- training of all levels in the new trends

Some orientations for training were proposed at the following levels:

- at the level of learning: understand the educational needs, organize and manage learning situations, design and apply evaluation techniques
- at the level of pedagogy : teaching should be participatory and must apply the techniques of social observation
- at the level of the training of trainers: include pedagogic training, that is learning to organize creative, participatory and formative teaching
- at the level of common truncks: the choice of the educational problem, diagnosis of the situation, identification of the tasks, the search for skills and the development of a curriculum development for the strengthening of participation and communication. All these must be basic to the training.

New objectives, new challenges, new educational tools

This presentation mainly demonstrated that, to be relevant education should be characterized by its capacity to adapt to the socio-cultural and economic milieu. Thus it dealt with:

- i) The immediate and future challenges of African education
 - to make education accessible to all
 - to make education usable by all
 - to make the educational process itself regenerative
- ii) The new general and specific objectives resulting from these challenges.
 - creating appropriate opportunities for self discovery and self improvement
 - training people who are useful to themselves and to society in general
 - creating within the whole society a regenerative form of education
- iii) The new tools for African education: textual and non textual educational materials should be refashioned by laying emphasis on two levels of integration (content and methodology) and on the improvement and proper use of non textual materials
- iv) The constraints, usually financial but also psychological, to these activities.

Participants' contributions

Papers presented by the participants on the educational structures in their respective countries, as well as on the introduction of productive work into curricula or supported by curricula made it possible to highlight problems and difficulties encountered at the national level :

- shortage of educational materials (Tanzania, Burkina Faso, Togo);
- lack of teacher training and of training and supervisory personnel (Congo, Togo, Benin);
- the absence of motivation in pupils, parents and teachers;
- problems of methodology as well as the lack of research in project evaluation.

Definition of guidelines for the implementation of project activities

Two working groups were set up on a language basis: an Anglophones group comprising Tanzania, Liberia, Sierra Leone and Kenya and Francophones group comprising Burkina Faso, Togo, Congo, Benin, Equatorial Guinea and Mali. The groups examined the following points:

- the training of trainers
- educational materials
- exchange mechanisms.

This examination resulted in the definition of sequences of activities for the implementation of the IFOMA Project at the national level, as follows :

- a) sensitization of decision makers and other agents concerned
- b) setting-up of a national coordinating mechanism or a national technical commission
- c) setting-up of an exchange mechanism using the national mass- media channels.

Discussions on a detailed programme of activities enabled participants to receive information on IFOMA and cleared confusions as regards the nature, respective roles and limits of the involvement of UNESCO, NEIDA and the National Commissions.

To most participants this seminar was "a new hope in the search for adequate solutions to the problems of the African educational systems".

Two sub-regional workshops for the preparation of teaching guides

sub-regional workshop for the production of educational documents and materials for the francophone countries

This workshop was organized from 2 - 6 October, 1989 in Lome in collaboration with the "Office for Permanent Training and Pedagogical Action " (DIFOP) Lome, Togo.. It

brought together ten education specialists from Benin, Congo, Guinea Bissau, Mali and Togo.

The objective of this workshop was to prepare a draft methodological guide for the training of teachers and educators in order to enable them to teach efficiently in the areas of:

- the improvement of the relation between education and the world of work especially in rural areas
- education for the improvement of the quality of life and of the environment

Purposes of the Guide :

- to propose a better knowledge of the objectives, types and modalities of implementation of the IFOMA project and to serve as a reference document for this purpose ;
- provide, as a methodological guide, the personnel in charge of teaching in the above-mentioned areas, with methodological orientations on pedagogic aspects for implementing activities concerning:
 - teaching
 - training of trainers in each of the areas concerned
 - the production and pilot testing of educational materials adapted to this teaching and training

Work was carried out in groups and was centered around the following points:

- definition of key notions and concepts namely education and the world of work, education for the quality of life and the environment;
- presentation of projects implemented in this area, analysis of methods used and results obtained
- problems centred to pre-service training of personnel
- problems relating to educational materials : identification, collection, adaptation, adoption and creation of new materials, experimentation
- problems of in-service training of trainers and especially for the setting-up of a mechanism for the exchange of information and experiences.

At the end of the workshop, a provisional draft guide was drawn-up. This guide should be the basic document for national seminars on the production of educational materials. This guide consists of the following parts :

- a) a general presentation of the IFOMA Project: nature, objectives, orientations and activities, clarification of ideas and key concepts in the selected programme areas ;
- b) a comparative study of certain countries (Benin, Congo, Mali, Burkina Faso, Togo) as regards :
 - population education : the objectives to be attained in the various countries (Togo, Benin, Burkina Faso) are identical, but the strategies adopted are diversified especially as regards the choice of subjects and level of introduction of the teaching;
 - improvement of the link education and the world of work. This is achieved by the introduction of productive activities into the curricula (Benin and Congo) and by ruralization (Mali).

All these countries have faced difficulties in implementing their projects such as:

- inappropriateness of pre-service and in-service teacher training
- difficulties as regards the direct and harmonious integration of productive activities into the classical school disciplines
- lack or inadequacy of financial resources
- lack of appropriate educational materials and equipment.

Areas of activity

- *Training of personnel:* the target personnel to be trained were identified in the formal and non formal system and orientations and strategies for this training were defined. These consisted of :
 - articulating pre-service training with in-service training
 - promoting interdisciplinarity, as regards educational personnel and those in other developmental sectors
 - developing an improved methodology of teaching
 - learning to organize creative, participative and formative learning
 - systematizing evaluation
- *Production of educational materials:* the materials must be conceived in line with precise teaching objectives.. In this respect :
 - they must be linked to productive activities

- they must contribute to organizing creative, participative, and formative learning
- they must aim at integration whether of content (the same material to teach different subjects) or whether of methodology (materials combining texts with non printed elements).

- *Evaluation*: it should deal with each of the three components knowledge, skills and well being.

Within the project the kind of evaluation to be promoted are those which involve the learner in the development and use of tools needed to assess his learning (self evaluation), and which help learners to progress in their learning by integrating sequences of evaluation into the process of learning instead of having them at the end of the process.

- *Exchanges of information and experiences between countries*: these should be organized at two levels:

- at the national level through the rational use of media such as radio, television, educational journals, seminars, and educational production workshops
- at the sub-regional and regional levels through the launching of an IFOMA liaison bulletin, and by exchanges of information, visits, publications in the IFOMA programme areas.

In this respect trainers of trainers should be capable of:

- profiting from the mechanisms of exchange created ;
- contribute to the growth of the available documentary base.
- In the same way in-service training should lay emphasis on the capacity to:
 - search, collect and process all documents related to activities in the programme areas of IFOMA
 - produce audio visual or textual documents
 - identify, list and propose a rational use of other less well known channels and organs of diffusion which belong to the traditional (non formal) education sector.

These materials are normally locally produced but certain types can be imported. All materials however, must conform to the following criteria:

- pertinence, in relation to the objectives of IFOMA in the fields of learning, training and teaching
- solidity, resistance, durability

The guide presents in a synthetic tableau, the features of the materials according to their use so that they best meet the teaching and training objectives (see annex 1).

Subregional workshop for the production of educational documents and materials for English-speaking countries

This workshop was held from 13 - 24 November 1989 in Nairobi (Kenya). It brought together 15 training and/or research specialists in curriculum development and educational materials production from Kenya, Liberia, Sierra Leone and Tanzania.

The objective of this workshop was the same as that of the French-speaking workshop, namely the preparation of a provisional draft methodological guide for teacher training in the selected programme areas of the IFOMA project. The teaching materials also aimed at the same objectives and contain the same adoption criteria, but they were presented (see annex 2).

Besides the presentation of the concept. "Education and the World of Work" and of the IFOMA project, the important issues of the workshop were methodology development and the introduction of materials into the existing systems. Several sessions of practical work were organized to identify, adapt or create appropriate materials.

Thus, at the end of the workshop, a guide on education and the world of work was produced, as well as two posters and texts on the improvement of the quality of life and of the environment. These documents can be used for teaching both in the formal and non formal sector as primary schools as well as in functional literacy classes.

IV. ACTIVITIES IN 1990 - 1991

First tripartite review, BRED A, Dakar 21 - 23 février 1990

A first tripartite review was held from 21 - 23 February 1990 at BRED A. It brought together representatives of UNESCO, Spain and countries participating this project.. This review was an opportunity for taking stock of the project activities carried out so far and for making suggestions concerning the execution of the second phase of the project (1990 - 1992).

Thus it was noted that during the first phase (1988 - 1989) all major activities of the programme were carried out.

In addition to these activities the following publications were completed:

- a presentation of IFOMA was produced in French which has since been translated into English and Portuguese
- 15 country papers on national trends in the integration of productive work into the formal educational system, on Population Education and Environmental Education
- a questionnaire drawn up on on-going national projects up and used since the launching of the project by the Technical Secretariat.
- 4 basic documents prepared by BRED A specialists on IFOMA programme areas
- 2 posters and texts the two programme areas

The evaluation carried out at this stage of implementation of the project has revealed the following:

- a) *As regards the implementation of recommendations*
 - increased awareness of the need as regards the link between education and the world of work, and as regards the production of appropriate educational materials
 - need to set up a mechanism for exchange of information and experiences at the regional level
- b) *As regards the participation of countries*
 - 2 countries, Botswana and Rwanda have not taken part in the above activities
 - 4 countries have taken part in all the activities. These are Benin, Congo, Kenya, Tanzania

- 35 specialists have taken part actively in the implementation of IFOMA activities as such or through other training activities.
- For French-speaking countries the production of a pedagogic guide in Lome was a major activity during this first phase
- For English-speaking countries, the Nairobi seminar was an enriching experience in the production of materials as well as for exchanges of experiences
- The participation of Portuguese-speaking countries was limited, and special programme needs therefore to be designed for them
- One Spanish speaking country i.e. Equatorial Guinea, despite communication problems was able to fall within the average of national specialists participating in training activities :

c) Difficulties

Difficulties encountered in the implementation of the project have been mainly the following:

- at all levels: lack of communication and the means of communication (difficulties in making contacts, slow dispatch of documents, administrative bottlenecks)
- at the level of BREDA: delays due to insufficient information from countries participating in the project
- at the national level: inadequate flow of information, frequent changes of national coordinators and the complexity of administrative procedures
- at the end of the review it was recommended:
- that the educational materials so far produced should be put at the disposal of other African countries
- that IFOMA should increase its efforts to secure the participation of a greater number of African countries (from 14 to 25 countries)

Training of trainers programme at the sub-regional level

Trainer Training workshop for French-speaking countries

This workshop was held from 19 - 29 June 1990 in Brazzaville (Congo). It brought together 17 education specialist from Benin, Congo, Burkina Faso, Equatorial Guinea, Guinea Bissau, Mali, Togo.

The objectives of this workshop were:

- to develop programmes for the training of teachers and educational personnel in the two areas of education and the world of work and education for the quality of life ;
- to undertake a thorough examination of educational materials produced before the project ;
- to propose materials adapted to the training and to develop a guide for the preparation of national workshops for training or for production of educational materials

The methodological approach adopted for conducting the discussions consisted in making participants aware of their needs and opinions, reinforce these opinions to produce the desired multiplying effect. Emphasis was placed on individual and collective practical work in the various working groups which were constituted.

In their working group sessions participants experimented with the technique of discussion based on the theme of the needs for training of trainers and other techniques such as role playing, peer teaching and instruction strips.

Presentations were made on the various themes to enable participants to produce documents adapted to the African context:

- a) training of trainers: reasons for failures, policies and suggested solutions
- b) linking education and world of work: pilot experiences undertaken in this area were described.

In Sierra Leone: the Bunumbu project - primary education programme adapted to rural areas.

This project contributed to strengthening and improving the quality of education and the standards of living of the village communities in the Bunumbu region.

- In Kenya: schools give basic education to "street children". Their aim is to give them training in various fields that will enable them to reintegrate into a rural environment (animal husbandry, health education, trading)
- In Senegal: intermediate education provides youth who have completed primary or lower secondary education with educational opportunities for their integration into structures for agricultural and artisanal production
- In Nigeria: The Ikere School gives education for production as an impulse to educational progress with major activities such as crop production, building, painting, carpentry and electricity.
- In Tanzania: Within a programme of popular education linked to development, teachers and students participation in village activities is directed in priority towards production in the rural and agricultural sector
- In Congo: Productive work has been introduced at all levels of education from basic education to University: Gardening, doing odd jobs, home economics, socio cultural activities in urban areas and agro-pastoral activities in rural areas are some of the activities.

c) Population Education

- in Mali this experience was mainly carried out within the framework of activities of the "Malian Association for the Protection and Promotion of the Family" (AMPPF) It mainly dealt with contraception education
- Benin introduced in curricula at all levels and covering various domains :
 - family and community life
 - food and nutrition
 - population and development
 - population and environment

This project aims at developing responsible behaviours and attitudes in the social milieu.

These presentations and the groups work facilitated a proper examination of the guide that resulted from the Lome workshop on the production of pedagogic guide. Amendments were made to the original document concerning:

- integrating together some sections of the guide ,
- the content: integration of communication and group "animation" techniques
- educational materials and support materials

It should be noted that this Brazzaville workshop devoted working sessions to the organization of national seminars.

The objectives of this meeting were thus achieved since proceedings had resulted in :

- a better knowledge of training techniques needed by trainers within the framework of the link education and the world of work and education for the improvement of the quality of life and the environment
- the adoption of teaching reading guide based on the Guide developed at Lome.

As regards the mechanisms of exchange and of follow-up of the Project IFOMA, Benin was appointed as coordinator of project activities in the area of Education and the World of Work and Burkina Faso in the area of quality of life and the environment..

Training of trainers workshop for English speaking countries 18 - 25 January 1991 - Freetown

This workshop was held in Freetown (Sierra Leone) from 18 -25 January, 1991. It brought together 10 participants from Botswana, Kenya, Tanzania, Sierra Leone. Liberia was invited but could not take part due to the civil war in this country.

The objectives of the seminar were among others:

- to develop a methodology that would enable participants to teach efficiently in both fields of the project;
- to examine in a critical way guides and tests which were produced at preceding seminars in order to prepare a

common model that can be used in both (formal and non formal) sectors;

- to take stock of experiences on the linking of education and the world of work and its impact on the improvement of the quality of life and the environment
- to propose strategies for teaching efficiently in the areas of linkage of education and the world of work and improvement of the quality of life and the environment

Given the limited number of participants, proceedings were held in plenary sessions followed by debates.

During the critical examination of the teaching guides and texts, two posters with each 12 diagrams were studied in relation with methodological problems as well as constraints that could arise in teachers teaching/learning situation in the formal and non formal sector.

Presentations dealt with

- The Bunumbu Project's approach in linking education and the world of work and the improvement of the quality of life
- The management of human resources as a population problem
- The management and coordination of education and productive work

The discussions focussed on four points:

a) The conceptualized method for linking education and the world of work. This method was considered as important and a prerequisite for African countries. The key approach here is based on the philosophy which underlies pre-service teacher training programmes: to train teachers while developing all their capacities so as to enable them to carry out efficiently polyvalent functions (teaching role and development agent functions). The new model should therefore adopt new approaches to pre service teacher training. They combine teaching of the disciplines, groupworks and participation in local life.

b) Strategies for organizing national seminars

c) Appropriate strategies for developing and promoting regional cooperation and particularly exchange of ideas namely:

- periodical study visits into countries participating in the project

- audio visual reproduction and dissemination of successful programmes in the areas of the project
 - a bibliography on questions linked to the objectives of the project
- d) Contribution of activities undertaken under the IFOMA project in connection with the elimination of illiteracy in English speaking countries
- Tanzania: Literacy campaigns have been undertaken in the areas of improvement of the work and of the quality of life of the population. The functional literacy programme enables adults to read and write and to carry out their daily occupations more efficiently.
 - Kenya: literacy programme deals with sensitization to economic independence, profit, the quality of produce and vendor/customer relations. This orientation motivates the people to become interested in reading and writing
 - Botswana: literacy campaigns sensitize and motivate the people, and thus develop in them positive attitude towards reading and writing
 - Sierra Leone: There are several projects which tend to put in practice the objectives of the IFOMA project, namely the eradication of illiteracy and improvement of the quality of life

The main results of the seminar were

- critical analysis of issues linked to both programme areas
- the development of methods which take into account the notions of linking education and productive work in teaching and learning

Training programme at the national level

Following the sub-regional seminars national seminars were organized in the various countries either in the area of training of trainers or in development of educational materials

National trainer training seminars

Four countries organized such seminars as follows :

a) *Togo: national workshop on the relationship between education and productive work - Lome 11-15 March, 1991*

This seminar brought together 20 participants who were specialists in education. Prior to the seminar, results of a questionnaire completed by a sampling of 100 teachers had shown that all teachers involved themselves in productive work at school. Yet 82% considered that they had difficulties with the pedagogy and all declared that they needed technical knowledge. This analysis contributed to better defining the objectives of the seminar so as to meet the needs and expectations of participants.

These objectives included

- identifying needs of the milieu in the area of education and productive work
- preparing national plan of action
- acquiring a mastery of the techniques of animating small groups
- developing guide for the training of educational personnel

There were both plenary sessions and discussion groups, dealing with on going experiences in Togo and with the technique of animating small groups. Some of which techniques were tried out by participants. In this manner the discussions enabled participants to clarify for the first and second degree education:

- the rationale for productive work at school
- the objectives, subjects and contents which tend themselves to the integration of work into school programmes
- problems raised by the implementation of productive work at all levels.

A guide for teachers in the field was prepared at the end of the workshop, the contents of which offered solutions to three major questions which had engaged the attention of participants namely :

- How to prepare the milieu and actors for the introduction of productive work at school ?
- How to effectively introduce productive work in the school?

- How to evaluate the teaching of productive work at school?
On the basis of the solutions offered participants recommended:

- to the competent Togolese political and administrative authorities to take all necessary measures to set up and coordinate pilot schools for education and productive work in the spirit of the reform. it should be noted here that participants laid emphasis on the similarity of IFOMA objectives with those of the Education reform in Togo.
- to primary school inspectors, to systematically try to ensure that productive work contributes effectively to the education of pupils and the promotion of the milieu.

They also expressed the wish for BREDA to promote exchanges of experiences, documentation etc between countries participating to the IFOMA project especially in the form of study visits, and to ensure that the IFOMA project is extended beyond the first phase so as to provide for an adequate follow-up at the national and local levels

b) Burkina Faso: Training workshop on Education for the Improvement of the Quality of Life and the Environment - Ouagadougou - 23-26 July, 1991

This seminar brought together 22 participants including educational advisers, secondary, primary school teachers and school inspectors.

Its objectives were to enable participants

- to obtain information, as accurately as possible on the concept of quality of life and the environment; the level of knowledge had previously been estimated by means of a questionnaire on this theme.
- to prepare educational materials and develop methods of approach for effective class teaching

During the seminar, work centred around:

- a description of the IFOMA project and of activities already carried out.
- the improvement of knowledge on the quality of life and the environment, and in particular :

- the main indicators of the quality of life and the environment in Burkina Faso

- the obstacles to the quality of life and the environment in Burkina Faso
- positive interrelations between the indicators of the quality of life and the environment
- the contribution of population education to the improvement of the quality of the environment
- practical work in group "animation"
- projection of a film entitled "the green struggle"
- a visit to the National Institute of Education and Production (INEPRO)

The workshop succeeded in achieving its principal objectives, namely :

- to make the project known to participants
- to sensitize them as to its theme (improvement of the quality of life and the environment)
- to encourage them to apply their knowledge in the field

The principal recommendation of the workshop was for the setting up of a technical unit for the IFOMA project. Participants also committed themselves to work unflinchingly to the improvement, protection, preservation, and beautification of the environment on one hand and on the other for the improvement of behaviours of people towards their health.

c) Sierra Leone: National workshop on the training of teacher trainers in the framework of project IFOMA: Technical Institute Kenema 16 - 18 December, 1991

This seminar brought together 23 people (representatives of the Ministry of Education, teachers, headmasters) Various presentations were followed by discussions on:

- a) the linkage of education with the world of work, listing the reasons why the educational reform in Sierra Leone should try to integrate the individual into his or her society, by offering the individual through formal and non formal education the possibility of acquiring knowledge in agriculture and handicrafts for the greater well being of the individual and the community.

Presentations on this theme defined a few strategies for linking productive work with formal and non formal education. They consist among others, in:

- helping pupils to get organized into productive units
 - giving to each community an agricultural, social and economic training that will enable its members to undertake productive activities
 - linking training to employment opportunities and living conditions in the rural milieu and ensuring that this training corresponds to the aspirations of the people
 - promoting the use of diversified educational materials and methods and of learning by experience
- b) education for the improvement of the quality of life and the environment assessed from the medical point of view (effects of diseases on the quality of life) and also from a demographic point of view (effects of high population growth)

The strategies to be implemented are:

- educating individuals in the management of the environment ;
- sensitizing and educating people in matters of hygiene
- reducing the population growth rate

Suggestions were made for the development of materials for primary and secondary education as follows :

- choosing target groups at the higher primary level and lower secondary level. These are the levels where national examination do not raise many problems
- using certain materials for the training of teachers in particular for training in methodology and practical work
- making primary school teachers and adult educators intermediaries for the promotion of the spirit of IFOMA.

The main constraints observed in the implementation of the project are the lack of materials and infrastructures and the absence of motivation on the part of decision makers, teachers and pupils.

The original guide prepared at the Nairobi seminar was amended on certain points with a view to adapting its content to the realities of each country.

d) Kenya: IFOMA National Training Workshop on Training of Teacher Trainers -22-28 September, 1991 Nairobi - Kenya

This seminar brought together 21 participants (primary school teachers, school inspectors, representatives of the Ministry of Education, and of the Department of Adult Education). Its objectives were to make the IFOMA project known to participants, to promote alternative teaching methods in existing programmes, to encourage exchanges of experiences between participants and to define a methodology for trainers

The working programme was drawn up so that presentations and field visits could enable participants to master both the theoretical and practical aspects of the programme areas selected within the framework of the IFOMA project.

At the end of the seminar an evaluation questionnaire was given to participants to assess its success.

e) Benin: National Training Workshop, Porto Novo 16 - 20 December 1991

This workshop brought together 30 specialists in the educational field and the training of trainers, psychologists and sociologists, inspectors, headmasters, and heads of educational projects. They discussed problems related to linking education with the World of Work and the quality of life and the environment and also issues relating to evaluation. The final report includes the structures of the methodological training guide and the national programme of implementation.

National seminars on the production of didactic materials

a) Mali : National Seminar/workshop on the Development of low-cost scientific equipment -- 2 -7 December 1991 - Bamako

This seminar brought together 22 school inspectors and biology and physics teachers. Its objectives were:

- to introduce participants to the development effective and low cost scientific materials
- to stimulate the scientific curiosity of participants
- to arouse and encourage initiatives, creativity and manual dexterity in participants

The work of this seminar was mainly practical and was directed towards the construction of objects from simple local materials, (magnets, hand balances insect catchers, rheostats, lancing needles). This exercise enabled participants to acquire the methods for the construction of these objects. Technical sheet were prepared and adopted by all participants. The latter should in their turn introduce this practical work in their institutions.

b) Botswana: Training workshop on materials development in Environmental Education, 13-17 January, 1991

This seminar brought together 24 education specialists in the field of (science and social studies,, school inspectors and teachers. Its objectives were:

- to develop prototypes of educational materials in the various disciplines integrating environmental education
- to identify the various methods for production of educational materials
- to define the strategies for preparing materials at the level of the schools
- to disseminate information on the objectives of the IFOMA project, its expectations and contributions.

To achieve these objectives theoretical presentations were followed by practical work on the production of materials. Thus four important stages were identified in the production of educational materials:

- identification of the concept of the theme to be studied
- analysis of target groups so as to sensitize the populations and identify the channels of communication to be used
- development of educational materials
- exploitation of the material, and evaluation

The teaching guide produced at the Nairobi sub regional seminar was discussed and amended. At the end of the

seminar participants were encouraged to organize similar workshops for their colleagues.

Second Tripartite Review

The second tripartite review (Spain. BREDA representatives of participating countries) was held from 29 - 31 July, 1991 in Dakar, Senegal. Its purpose was to take stock of the activities carried out since the beginning of the project in 1989.

Results obtained as of 31st July, 1991 are as follows:

- 35 persons (including 5 women), specialists in training and/or educational materials production, received complementary training
- 35 educators availed themselves of the opportunity to visit some projects in 4 countries (Congo, Kenya, Sierra Leone and Togo)
- 15 documents were distributed.

It can be observed that all participating countries, except Rwanda, have contributed positively to the activities of IFOMA: sensitization/information, training, production of educational materials.

- However, the war in Liberia retarded the implementation of activities in the English-speaking sub-region in general and in that country in particular.

It should also be noted that some countries have since then organized their national seminars (Sierra Leone, Kenya, mali, Botswana, Benin, Burkina Faso)

The perspectives identified at this review are as follows:

- increase in the number of participating countries from 14 to 23. This suggestion has already been made at the first review, and it was now concretized by a new contribution of the Government of Spain.
- As regards publication: the preparation, translation and publication of national training guides (28 to 50) in English, Spanish, French, Portuguese as well as the translation and publication of the reports of regional and national seminars.
- As regards training, classroom application of the training methodology acquired and use of the educational materials produced : 500 pilot primary and secondary

classes: (20 per country) and 100 teacher training classes: will be used as pilot classes for the experimentation of this method :

- strengthening of training capacity in the three Portuguese speaking countries and one Spanish speaking country. The members of these countries could increase.
- there will be evaluation sessions:
 - at the regional level: involving all countries and aimed at the preparation of guidelines and instruments for evaluation
 - at the sub-regional level, on a linguistic basis of linguistic grouping
 - at the regional level, in a final tripartite evaluation.

CONCLUSION

From 1989 - 1992

The programmed activities were executed. A summary of these activities is given below.

- 2 regional sensitization seminars (15 participants)
- 2 sub regional trainer training seminars (28 participants)
- 2 sub-regional seminars on the production of educational materials (21 participants)
- 2 tripartite reviews (14 participants)
- 1 regional synthesis seminar (15 participants)
- 6 national seminars on the training of trainers (86 participants)
- 2 national seminars on the production of materials (46 participants)

Thus 27 trainers of trainers benefitted from some training which enables them to teach more efficiently in the areas of linking education with productive work and the improvement of the quality of life.

At the national level 132 educational personnel and teaching specialists also benefitted from this training and will work towards the concretization of IFOMA spirit.

The figures indicate that four countries namely, Cape Verde, Guinea-Bissau, Equatorial Guinea and Tanzania, have not yet organized their national seminars. However, they

will certainly do so in the near future, as they have already sent out programmes of the seminars which they expect to organize. These national seminars will substantially increase the numbers of beneficiarries as well as the impact of the Project IFOMA, in the participating countries.

Activities in 1992 - 1993 Programme

In accordance with the recommendations of the Tripartite Review, during the 1992 - 1993 phase, activities should concentrate on the implementation of programmes at the national level that is to say in classrooms. In addition to the 6 countries which had already organized their national seminars, one must add that of Benin on teacher training.

From 2 - 13 November 1992 the Regional synthesis seminar was organized in Nairobi in cooperation with the Kenya Institute of Education (KIE). It brought together UNESCO, the participating countries and a representative of the Spanish Ministry of Education.

The seminar recommended the continuation of the IFOMA project of national experimentation with the materials produced and their dissemination as well as the publication of an "IFOMA Bulletin".

In 1993, Guinea-Bissau and Equatorial Guinea organized their national seminars respectively in May and July in Bissau and in Malaboby the organization at Sao Tome in May 1993 of a seminar for the Portuguese and Spanish speaking countries, mainly Angola, Cape Verde, Guinea-Bissau, Equatorial Guinea organized their own national seminars the former in May at Bissau and the latter in July at Malabo. The growth in the number of beneficiaries of the project will be realized by the organization at Sao Tome/Principe and Mozambique. Another tripartite review is planned for December 1993.

BIBLIOGRAPHY

1. Presentation of IFOMA project
2. IFOMA - The Training of educational personnel and the preparation of educational materials related to educational innovation in Africa - Reference Document.
3. IFOMA Project: Regional Sensitization Seminar on the IFOMA Project, 24 - 27 April 1989 Dakar, Senegal, Final Report
4. Atelier sous régional d'élaboration de guides pédagogiques. Projet IFOMA, Lomé, Togo 2 - 6 Octobre 1989
5. Sub-regional workshop on the Development of Educational Materials. Nairobi, Kenya 13 -24 November, 1989
6. Revue tripartite - Projet IFOMA 21 - 23 Février 1990 - Dakar, Senegal. Rapport Final.
7. Atelier sous-régional de formation de formateurs, Brazzaville Congo 19 - 29 Juin, 1990. Final Report.
8. Sub-regional training workshop. Freetown, Sierra Léone 18 - 25 January 1991 - Final Report
9. Séminaire-atelier national sur la relation éducation et travail productif - Lome, 11-15 Mars 1991. Rapport Final.
10. Séminaire-atelier national de formation à l'éducation pour l'amélioration de la qualité de la vie et de l'environnement (Ouagadougou, Burkina Faso, 23 - 26 juillet 1991)
11. Final report of national workshop on the training of teacher trainers in the Framework of Project IFOMA. 16 - 18 December 1991. Kenema, Sierra Leone

12. Linking education with the World of Work and improving the quality of life. Guides and texts - Kenema, Sierra Leone, 16 18 December 1991
13. Preliminary report on IFOMA national training workshop on teacher trainers Nairobi, Kenya, 22 - 28 September 1991
14. Séminaire-atelier national d'élaboration d'équipements scientifiques peu coûteux.
Bamako, Mali, 2-7 décembre 1991. Rapport Final.
15. Report on a training workshop on materials development in Environmental Education Nolepolole Education Centre 13 - 17 January, 1991 - Botswana
16. Tripartite Review: Project IFOMA 29 - 31 July, 1991, Dakar - Senegal
.Proposal for 7 days national workshop for teacher trainers on the use of IFOMA Methodology, Kenya
17. Proposal for 7 day National Workshop for Teacher Trainers on the use of IFOMA Methodology, Kenya.
18. Proposition pour l'organisation du séminaire national du Projet IFOMA : Guinée Bissau
19. Final Report of the national seminar of Equatorial Guinea (Malabo, 12-17 July 1993)
20. Four contributions of BREDA specialists on the Project themes (sensitization seminar 1989)

ANNEX

Summary Table of Types of Material and Beneficiaries

	Materials	Beneficiaries/Purpose
1. <u>Produced Locally</u>		
a)	Education and training programmes	Training of Trainers - Training Training of Trainers - Training
b)	Pedagogic Guides and films	Training of Trainers - Learners
c)	Education and Training modules	Trainers - Learners Trainers - Learners - Policy makers -
d)	Reading and Assignment Manuals	Learners Trainers - Learners - Policy makers -
e)	Information sheets	Learners
f)	large posters and photos, slides	Trainers - Learners - Policy makers - Learners
g)	Sound and audio-visual productions	The general public Trainers - Learners - Learners -
h)	Folders	Educators -
i)	Theatricals oieces, sketches	General public Trainers - Learners - Learners -
j)	Tapestry, sculptures	Educators - General public
k)	Ludic materials	Trainers - Learners - General public
l)	Self-instruction kits	Trainers - Learners
2. <u>Imported</u>		
a)	Projectors and retroprojectors	Trainers of trainers - Formal sector - Non formal sector training
b)	Video tape recorders	Non formal sector training
c)	Tape recorders	Non formal sector training and
d)	Reproduction materials	Learners
e)	Manuals and guides	Trainers of trainers - Personnel
f)	Self-instruction kits	Trainers of trainers - Trainers - Learners Trainers - Learners

II

EXPOSITIONS ON VARIOUS ASPECTS OF THE PROJECT

INTRODUCTION

The IFOMA project (signifying Innovations - Training - Teaching materials), is conceived as a contribution of the Spanish government to the Regional Programme for the Eradication of Illiteracy in Africa. It is aimed at the training of educational personnel and development of educational materials in fields relating to

- Improvement of the link between education and the world of work, especially in rural areas ;
- Education for the improvement of the quality of life and the environment.

Its field of action is innovation which consists in developing new approaches, new methods of teaching as well as materials for this training. Its strategy consists in obtaining the greatest multiplier effect by establishing cooperation between participating countries.

With a view to clarifying the concepts used in the project's fields of action, certain specialists of the Regional office of education for Africa (BREDA) presented their reflections on different aspects during an awareness seminar ; these reflections have continued to guide the implementation of the project.

A synopsis of these views is given here ; they relate to :

- the present context of the planning of innovations in Africa;
- new orientations for teacher training in the context of IFOMA ;
- the links between education and the world of work

1. The current context of the planning of innovations in Africa (A. Damiba)

This paper aimed at throwing some light on the characteristics and dimensions of innovations within the IFOMA project.

- a) The characteristics of the educational field are marked by its diversification ; the stagnation of quantitative growth and sometimes educational wastage caused by the economic crisis ; the decline in the quality of education.

- b) The dimensions of innovation highlight several models of innovative projects in this particular context.
- c) Planning will consist of harmonizing the quantitative approach (enrolment planning) with the qualitative approach (curriculum planning) for an improved output. A planning process in several stages could assist planners in their tasks of preparing a diagnosis, defining the objectives, designing a strategy, detailed programming and implementation, and in establishing a system of evaluation.

2. The IFOMA project and new orientations for teacher training (A. Gnali)

The paper specifies the characteristics of teacher training in relation to the innovations adopted as follows :

- In the formal system, the need "to bring closer together in a more relevant manner, the new content and the more familiar content of education ;
- In the non-formal system, the need "to introduce among the populations concerned, new behaviours which are more in line with the needs of the society..."
- The educational objectives expected of IFOMA should emphasize attitudes and skills, rather than knowledge.

The manner of teaching should be reconsidered to ensure that it is based on an inter-disciplinary or inter-sectoral approach. Training strategies should be aimed at :

- Harmonizing initial training with continuous training and introducing innovations in initial training ;
- Promoting participatory pedagogy and implementing the techniques of social observation ;
- Designing trainer training of programmes so that trainers learn to organize creative, participatory and formative learning.

3. New objectives, new challenges, new educational tools (P. Obanya)

This presentation defines the characteristics of a pertinent education system by virtue of its capacity to adapt to the socio-cultural and economic milieu. It describes in particular :

- a) The immediate and future challenges of African education which are interrelated and which consist inter alia, in making the educational process itself regenerative.
- b) The new general and specific objectives stemming from these challenges which consist of :
 - training persons who are useful to themselves and to society in general;
 - creating in every society, a form of regenerative education
- c) The new tools for education in Africa that is to say teaching materials in their different forms (textual and non-textual). These should be rethought by underscoring two levels of integration (content and methodology) and the enhancement of non-textual materials ;
- d) The constraints which are often financial ; but the most important is the change in mentality ;

4. The link between education and the world of work : lessons to be drawn from some African experiences (A. Fofana)

In this presentation, the emphasis was on the objectives of education and its relationship to productive work (sensitization of pupils and students to the values of the types of work, promotion of community development, improvement of employment prospects and a better understanding of economic and social relationships in active life) :

- the analysis of the experiences in the field of education linked to work in some African countries underscores the obstacles to the implementation of the different projects (insufficient funds, inadequate teacher training, lack of educational materials and equipment suited to this training) ;
- the interest and advantage of these articles will lie in their capacity to stimulate a more profound discussion on the

implementation of educational projects in Africa. Finally it is to be noted that the views expressed in the various chapters are those of the authors' and do not necessarily reflect the official views of UNESCO.

Amara Fofana

OUTLINE OF PRESENTATION

The present context of the planning of innovations.

Introduction : The Educational field and its principal characteristics.

- Diversification of the educational field
- Stagnation in quantitative growth
- Decline in the quality of education.

I. Dimensions and fields of innovation

- Dimensions (types)
 - . Type 1 : the grand solution
 - . Type 3 : controlled expansion
 - . Type 3 : crusade
 - . Type 4 : local change
- Fields
 - . Priority themes of NEIDA
 - . Priority themes of IFOMA

II. The Planning of innovation

Diagnosis

- Determination of objectives
- Development of strategies
- Programming and implementation
- Evaluation

Conclusion: A Systemic Approach to the Implementation of the IFOMA Project.

THE PRESENT CONTEXT OF THE PLANNING OF INNOVATIONS IN EDUCATION IN AFRICA AND THE IFOMA PROJECT

by

Aimé DAMIBA

PRINCIPAL CHARACTERISTICS OF EDUCATIONAL FIELD

In the contemporary development of African education, three principal characteristics can be noted: the diversification of the educational field, the stagnation of quantitative growth and , the decline in the quality of learning.

Diversification of the educational field

This is indeed a notable fact. The African educational heritage itself, in spite of everything continues to be dynamic in its forms for the acquisition of knowledge within the community, through an interaction between age groups and in a permanent link with life in all its manifestations. In deliberate avoidance or even opposition to this background, other forms of education were developed in Africa.

The school established by colonization is one of the forms of education whose development has been particularly expanded with the accession of African countries to independence. All levels of education were established, from primary to university education, and attracting considering enrolments. "In primary education, the gross enrolment rate rose from 36% in 1960 to 75% in 1983. In higher education, the number of students in African institutions rose to 437,000 in 1988 as against only 21,000 in 1960". This educational development was not enough to extricate Africa from illiteracy since to date, sub-Saharan Africa has the highest illiteracy rate in the world; about 56% in 1985.

The struggle against illiteracy is one of the explanations for the emergence of some new forms of education outside the formal systems of education. To the

youth, adults, men and women, and within national contexts, a wide enough variety of a second chance of access to another kind of education has been provided of a kind that would stimulate their capacity for self-promotion.

The diversification of the educational field also involves a variety of actors with motivations as different as those of the Koranic school teacher, the voluntary literacy worker or the teacher employed by the State. The relative weight of the different categories of actors: the State, the communities and the private promoters, is a fact to be taken into account in the process of education development.

Stagnation in quantitative growth

This observation refers particularly to the formal systems of education. The effort made in education since 1960 declined steadily from 1980 onwards. "This decline was felt at all levels, but most especially in primary education, where the annual growth rate of 8.4% registered between 1970 and 1980 fell to 2.9% between 1980 and 1983. If the primary school-going population increases as projected by 3.3% a year, a 2.9% increase in enrolments per year will not be enough to maintain the status quo". A phenomenon of falling enrolment can be observed in several countries, both in those which have already attained a high rate of elementary school enrolment as well as in those which, in spite of their efforts, are still far below the 50% bar. This trend will give rise to disparities between the urban and rural areas, and between the regions and between the sexes as regards the access to education.

The burden of financing formal education systems which may absorb 30% of the State budget provides an obvious explanation for the ceiling reached by quantitative growth. Indeed, the latter cannot be sustained because of the persistent crisis in the economies of the countries of the region. The question is, will this crisis generate some alternative forms of educational provisions ?

Decline in the quality of education

The effort to increase enrolments, quite often at the expense of quality, is a sad reality. One arrives at this conclusion by way of several attestations of the severe lack of certain factors indispensable to a certain quality of education. School buildings, furniture, educational supplies and manuals are lacking to a considerable degree. In elementary education alone, the deficit may be evaluated at 50% in the urban area and more than 60% in the rural area.. Also the number of teachers does not increase at the same rate as that of pupils and students, and these teachers can only practice a form of oral teaching in the absence of teaching materials in sufficient quantities.

Other factors can also affect the quality of education, the most important being the increasing difficulty in integrating school leavers in the national economic and social fabric. Paid jobs which correspond to the aspirations nurtured throughout the educational cycles are difficult to find. This and the inability to create a remunerative activity for oneself through training are indices of a lack of relevance in the quality of education.

Here briefly summarized, then, are some major features of the African educational context for the benefit of policy makers and educators. Solutions to the present problems need to be envisaged, in order to achieve an expansion of education and at the same time an improvement in its quality.

What should be done ? How should it be done? It is necessary to innovate, and to do so with the aid of systematic and systemic planning.. In order to help in this effort, an attempt will be made to describe firstly the dimensions and fields of innovation and secondly, some considerations as regards the planning process.

I. DIMENSIONS AND FIELDS OF INNOVATION

Dimensions of innovation

Innovation as necessitated by the situation described above, and this fact leads to a discussion of the need for an overall re-consideration of education in national contexts or even in the vaster context of Africa. Thus, one is led to review the whole educational reform effort undertaken over the last twenty years.

Here are some titles relating to some reforms presented in a rather unsystematic manner: Practical middle level education in Senegal, reform of basic education in Mali, development oriented popular education in Tanzania, the new school in Benin, the People's school in Congo, innovative reform in Ethiopia, tele-education and mass education in Kenya, television education in Côte d'Ivoire... There is no need to extend the list further to understand the nature and dimension of the innovations projected.

"Educational innovations involve for most countries, a profound transformation of the system. They are most often ambitious enterprises by virtue of the time, energy and material resources devoted to them and the rapidity and scope of changes expected of them". The above-mentioned reforms placed again within their present national contexts have resulted in less numerous successes than the failures, even if these have no effect on the merit of having attempted them.

According to Havelock and Huberman, in this type of innovations, one notes a cycle of the resolution of problems running with giant studies from the initial estimation of the need for change up to the design of a solution and its implementation. Implementation effort is carried out without delay and on a large scale. The promoters of this type of solution are either foreign advisers, technical advisers or senior local officials responsible for planning. Thus planners are not the most suitable for giving lessons in the field under consideration, since they are compelled to adopt ambitious and far-reaching projects, out of line with the resources and technical capacities required for their implementation.

To conclude our discussion on the dimension of innovations, it is worth recalling the four models of innovative projects identified by the above-mentioned authors. The first model is called "the grand solution". This is the model adopted by a good number of educational reforms arising from a profound desire, and a felt need for radical change as often felt during the process of independence.

The second type i.e. "controlled expansion" corresponds to a rather widespread situation. Indeed, the inherited educational system is not called into question; it continues to be the only frame of reference for teachers and parents and continues to prevail in higher studies and for obtaining diplomas. In this context, an innovation will remain a pilot project for as long as it does not interfere with anything, before it appears.

A third type "the crusade" is rather uncommon, and it requires exceptional conditions charted by a personality with a charismatic power. The doctrine or policy which governs this type of project is highly socialist or collectivist.

Finally, the last type of innovation is a small scale innovation consisting in making changes at the local level. This problem resolution cycle is slow, focussed on the relevant innovation consisting in making changes at the local level. This problem resolution cycle is slow. The cycle of problem resolution is slow, and is focused on the relevant search for a consensus on the objectives and means of achieving them.

It is important to note these different types of innovations in order to properly situate their activities. One does not embark on a nation-wide crusade in the same manner as in the closed confines of a village confronted with a specific problem, for example, the need for the provision of a literacy centre.

In the implementation of the IFOMA project, in what type is each innovation going to find itself ?

Fields of innovation

Whatever the level of success registered by educational reforms, someone must first have identified different types of

fundamental problems and have created a first picture of how they could be tackled and resolved.

The evidence that there is no "miracle" solution, and that it is necessary to resort to various trials inspired on the most successful experiences, has given use to the need for systematized cooperation.

This is how the Network of Educational Innovation for Development in Africa (NEIDA), emerged.

African countries which cooperate mutually through this network focus as a matter of priority, on the seven fields below:

- education and productive work ;
- education for development in rural areas ;
- training and retraining of teachers ;
- administration and supervision of educational systems ;
- use of national languages in education ;
- production and distribution of teaching materials ;
- science and technology education.

The last Conference of African Ministers of Education and Those Responsible for Economic Planning held in Harare in 1982, confirmed the relevance of the priority areas of NEIDA by identifying three major orientations in educational policy.

- The first concerns the struggle against illiteracy, through certain global strategies articulating the efforts at generalizing primary education among children with efforts aimed at the eradication of illiteracy among the youth and adults.
- The second orientation relates to the need for a policy of national mobilization for science and technology integrated into the total system of school and out-of-school education and taking into account the relations of education and the world of work.
- The third orientation relates to the contribution of education (and research) to the development of African societies and particularly, the need to adopt resolute policies to strengthen science and technology, as specified later in 1987 at the Conference of CASTAFRICA II.

These orientations are accompanied by two basic instrumental aspects which are:

- the planning, administration and management of education ;

- the use of national languages in education.

It is within these orientations, which will undoubtedly remain valid for the decade ahead that the IFOMA project is situated with its specific objectives. The project is specifically aimed at promoting the pooling together of experiences in these fields and the exchange of ideas between specialists in the implementation of innovative projects in the following areas:

- improvement of the link between education and the world of work, especially in the rural areas;
- education for improvement of the quality of life and of the environment.

These activities of the project revolve around two major axes: to the training of teachers and other educational personnel with multiplier effect, and the preparation of appropriate teaching materials for teaching in each of the selected fields of activity at the basic education level.

Whether it is maximum innovation which constitutes the total reform of the system of education or whether it be other types of innovations more limited in scope and regardless of the field of application of innovation: expansion of the access to education or improving the quality of education, a planned approach is necessary.

II. PLANNING OF INNOVATION

Planning in general and educational planning in particular, is dominated by work of quantification aimed at establishing a rapport between the number of people to be educated and to be taught to read and write, and the human, material and financial resources available. This type of activity performed by planners does not completely cover educational planning whose methodology can also be applied to the search for a certain quality of education equally in relationship with the means. If the reforms and innovations in education were often total failures, the explanation lies partly in the fact of a separation of the quantitative approach to education from the qualitative approach. The rigorosity of planning methodology is not applied to each of the two approaches. When one feels compelled to follow a systematic approach in one or the other of these fields, this

happens at different times and in a non integrated manner. An example will make things clearer; Increasing the number of newly enrolled pupils in elementary education by 5% a year is a quantitative objective that can be easily planned. At the same time, if one decides on a new curriculum for primary education, will it be possible for newly enrolled pupils to benefit from this new programme? It is not certain, because the planning of enrolments and the planning of curricula may not be harmonized due to their specific rhythms and the different kinds of specialists required.

The stages of a planned process

Whether it is the specialists of the Ministry who design educational development plans and projects, or whether it is specialists of pedagogic institutes who design new curricula, a systematic approach in five stages may be recommended as follows :

- determination of objectives;
- preparation of a strategy;
- detailed programming and implementation;
- development of system of evaluation.

The establishment of the diagnosis consists in knowing the initial situation through data collection and in the first place, in all specific cases, some statistical data. The school statistics bulletins that statistical departments usually publish represent an indispensable base, more or less valid for enrolments planning, but always deficient for curricula planning for example.

Data collection for qualitative planning leads to the need to prepare a specific research project. Indeed, over and above the statistical information, useful information concerning the real pedagogic practices in institutions and classes and the target public (students) in its physical, social and cultural environment; teachers not as a statistical group but teachers in their physical state in their working conditions, their various qualifications, their relations with the community, their ethics and aspirations; the community itself in its expectations with regard to education. It is not from the capital city, neither is it through questionnaire that such information can be obtained. Only the teachers themselves, who are in

the classrooms every day, are capable of providing the right information. This is why it is necessary to set up together with them, some research and action units within which teachers will assist in undertaking the reform instead of submitting to it one day or another. In order to form research and action units and to have them function,, some financial, material and human resources will be required; yet, one generally forgets to estimate and forecast them.

Determination of the objectives. It is not necessary to dwell at length on this issue with those who are familiar with the literature of Mager, Hainut, and De Landsheer.on the definition of pedagogic objectives. However, we wish to emphasize that in Africa, the setting of objectives especially in countries with a high level of centralization, stops at the national level whereas it should be carried out at different levels and be the result of the concerted effort of various sectors of the community: both politicians and educators, parents. Concerning pedagogic objectives, their definition should not be dominated by specialists as is too often the case. "The formulation of education objectives is the responsibility of men of wisdom and specialists are not all wise as far as their speciality is concerned".

Preparation of a strategy. Several paths can lead to one same place; hence, there are several ways of attaining an objective. Strategy is nothing other than the exercise of identifying the possible ways of choosing the most suitable.

This stage is really the stage at which the study of means becomes significant. Whatever the innovation or its nature and scope, strategy can be defined as an optimum combination of resources; these resources are physical, financial, human, institutional, spatial and temporal. The absence or scarcity of resources is a constraint. It is worth noting however that the existence of a constraint may be the source of an innovation. For example, the shortage of teachers necessitates the adoption of the system of part-time classes, double shift classes, multiple course classes whose efficient implementation normally entails pedagogic (i.e. qualitative) changes.

For qualitative changes, one tends, all too often, to neglect this stage of strategy preparation and consequently, the importance of the constraints is minimized. Among these

constraints, even when the financial resources are available, time is not extendable, and the latter is the greatest enemy of innovations and reforms; let us just think of the time required to retrain 10,000 teachers in a country if the decision was taken to make them use national languages in teaching.

Programming and implementation: When the objectives are acquired and the general strategy adopted, it is necessary to embark on a detailed programming and implementation of the innovation. It is at this stage that the integration of all aspects particularly the quantitative and qualitative aspects should be studied. Here too, time is a constraint. Between the moment when an innovation is decided and its early stages of implementation, three years can easily elapse. In pedagogic reforms, this delay is the indispensable minimum based on the assumption that the design of new programmes and teaching materials takes 9 months, the experimentation in schools one year and the review and development for the purpose of dissemination another year. This time is too long for political leaders who should satisfy the impatience of public opinion especially when the innovation has gained the widest publicity. The time taken by innovations to mature and to be implemented does not correspond to the rapidity of changes made by policy makers. If the arrival of a new minister does not spell the doom of an innovation, it changes at least its course.

Evaluation. This is perhaps a final stage where one seeks to measure whether the objectives have been attained. But this depends on the nature of the innovation and the processes followed.

For innovations in pedagogy, experts have distinguished between formative evaluation which takes place throughout the implementation phase, and summative evaluation which takes place when the innovation cycle is over. Thus, a curriculum reform passes through four successive phases during the implementation process: the phase of monitored experimentation, the stage of small scale application often in the form of a pilot operation and the stage of evaluation, prior to the stage of generalisation.

Evaluation especially of the quality of education, has become a complex domain. "For many people, the very word evaluation evokes the idea of rigorous scientific methods,

involving the use of instruments (another word that frightens teachers) and the results of which, almost certainly in their view, must be analyzed by computer". If this is true one understands why there has been less and less of a recourse to evaluation. Hence, it is necessary to find some forms of evaluation within the reach of man, and within the reach of the teacher.

CONCLUSION: SYSTEMIC APPROACH TO THE IMPLEMENTATION OF THE IFOMA PROJECT

The planning process described above should be adapted to each specific innovation, and one way of doing so is to adopt a systemic approach. It consists in considering education in its totality "as a set of distinct elements which react on one another in relation to a specific goal". Each element can constitute a sub-system within the macro-system.

The IFOMA project will be focused on an education sub-system to promote through teacher training and the production of teaching materials, the two areas that form its priority.

In this context, it will be useful to take into consideration the following aspects:

1. the innovation will be a basic innovation on a rather reduced scale. A modification of scale will also modify the conditions of implementation of the innovation;
2. a basic innovation causes indifference or hostility because it conflicts more or less with the macro-system and therefore runs the risk of being neutralized;
3. to survive the crisis situation caused by basic innovation, the latter should give conclusive results in the short run;
4. if the basic innovation aims at changing the operation of the macro-system in a sustainable manner, it must achieve a critical mass.

DOCUMENTATION

- Politiques de l'éducation et de la formation en Afrique sub-saharienne UNESCO 1987.
- L'éducation en Afrique sub-saharienne Banque mondiale 1988.
- Innovation et problèmes de l'éducation R.G. Havelock
A.M. Huberman
UNESCO, 1980
- Planification des programmes de l'enseignement primaire dans les pays en voie de développement.
R. Hawes, IIEP, 1972
- L'éducation et l'approche systémique.
UNESCO, 1981.

THE IFOMA PROJECT AND THE NEW TRAINING ORIENTATIONS FOR TEACHERS

by

Aimée GNALI

INTRODUCTION

It is almost a truism that one speaks about teacher training with regard to IFOMA which, as its name indicates, is essentially a training project. But since IFOMA is also a project relating to the promotion of educational innovations in Africa, it is not superfluous to specify what should be teacher training in relation to the selected innovations

Although the project is "designed as a contribution to the improvement of education programmes" IFOMA's aim is not so much a change of contents, as an overall change of perspective in education, since IFOMA addresses itself at the same time to both formal and non formal education. In the formal system, the idea is less the addition of new disciplines to the already numerous concerns of the curriculum, than the approach in a more relevant manner, both to new content and to the more familiar content already in education. And in non formal education, where the curriculum is generally flexible and closer to the socio-economic and cultural realities of the milieu, the idea is basically to induce, among the populations concerned, new behaviours that are more in line with the needs of a changing society and more likely to ensure a better utilization and management of resources.

In both cases, it is therefore the relevance of educational programmes that is sought within the context of the Regional Programme for the Elimination of Illiteracy in Africa (RP), a regional programme which articulates the education of youths with that of adults, links education and the world of work, and aims at securing the education - society -development interaction.

This concept of relevance which underpins the regional programme and the IFOMA project requires :

- taking into account of the conditions of the environment and the needs of the populations ;
- the promotion of interdisciplinarity, not only between specialists and practitioners at various levels of education, but also between education specialists and specialists and agents of various sectors of development, from an inter-sectoral point of view ;
- the concern for success with regard to the education of learners.

This means that the education expected from these education programmes responds adequately to the new triad of educational objectives, which emphasizes attitudes and skills rather than knowledges.

Traditional Triad (hierarchy)

- I. Knowledge
- II. Know-how
- II. Attitude and skills

New Triad

- I. Attitudes and skills
- II. Know - how
- III. Knowledge

Under these conditions, the training to be given to teachers should also emphasize attitudes and know-how rather than knowledge and should not be designed in relation to the content but to all demands involving the concept of relevance.

What orientations should be given to the training of educational agents in order to meet these demands ?

I. THE PRESENT SITUATION

In spite of all what has been written on the new roles of teachers or their new profiles, and in spite of the ever-increasing areas of contents to be mastered, most African training institutions continue to promote so-called scientific training based on knowledge to the neglect of pedagogic training. One only needs to observe the time table of these institutions to realize that scientific training often represents the greatest percentage of the working hours.

Worse still, this conservatism is more pronounced in initial training institutions than in the structures of in-service training. While in-service training consists often of retraining

teachers in relation to the innovations introduced in the educational system initial training continues to behave as if these innovations did not exist. How many initial training institutions train for the teaching of African languages ? For the practice of productive work ? Or for environment education ? Given the growing importance of contents as already indicated, and also what has been said regarding the need to re-orient training, it will be out of the question obviously to base initial training on the present orientations of in-service training, but to develop a new philosophy of training in conformity with the objectives and contents of education and which applies both to the initial training and in-service training of teachers.

The new trends of education and in particular, the orientations of Regional Programme give priority consideration to the inter-disciplinary and inter-sectoral approach, but in the reality of training sub-systems, the integration and articulation of different personnel training policies are still at the experimental stage, and the idea of a common core in the training of all categories of educators, which UNESCO is striving to promote, is still far from being a reality.

If it is necessary here to pay tribute to the wisdom of education authorities, who were cautious in not initiating changes insufficiently thought out and tested, one can however immediately identify, in the current situation, certain strategies which need to be promoted.

II. STRATEGIES

These should aim at :

- 1) Reaching the maximum number of teachers and to achieve this, it is worth starting with the training of trainers for a greater multiplier effect and linking pre-service and in-service training ;
- 2) Proposing training schemes which have more precise and better organized relationships with pedagogic research, the design of programmes and the production of teaching materials, that modern pedagogy also assigns as tasks for new teachers

- 3) Envisaging some types of training or retraining which will make it possible to promote the participation in educational activity, either on a full time or part time basis of some personnel with a varied initial training.

This training should promote the inter-disciplinary approach and ensure, through some common trunks of training, vertical articulation between the training of trainers, be they policymakers, administrators, education personnel and the personnel of other development sectors. Indeed, it is necessary that one same spirit and a common attitude, based on a scheme of learning that is in line with the set objectives, should animate all this personnel, guide all this personnel with varied professional profiles.

III. TRAINING ORIENTATIONS

1) Learning orientations

Given the character of the IFOMA project, it may be considered that education personnel to be trained within the framework of this project are already specialists in certain areas, hence "employed learners", who already have some general intellectual capacities and professional aptitudes. Their training may therefore be based on specific problems such as :

- the analysis of human behaviours, both individual and collective, in a learning situation ;
- understanding the very different levels of language, both, those of policymakers and those of the very heterogeneous populations of learners ;
- communication and efficient transmission of knowledges, skills and attitudes.

To achieve this, they should learn to master four categories of teaching approaches to teaching :

- i. understanding and identifying the educational needs of learners,
- ii. identifying, determining and clearly stating educational intentions,

- iii organizing and managing situations of learning,
- iv conceiving and applying certain evaluation techniques which will make it possible to verify the efficiency of learning.

2) Pedagogic Orientations

Because it conforms to the concept of relevance and deals with educational innovations, the IFOMA project requires a participatory pedagogy to which teachers could be trained according to an approach which promotes the learning of communication, the systemic approach to a development problem and the training -environment relationship.

Such a pedagogy or teaching method puts into play the techniques of social observation : the approach based on interviews, surveys and field trips, as well as simulation and role play techniques of communication and group work methods.

3) Training of trainers

Since teacher trainers, heads of schools, staff teachers colleges, supervisors and inspectors are responsible for the pre-service and in-service training of teachers, it will not be proper to change the orientations of teacher training without first of all, making modifications as regards the training of trainers.

In most African countries, the training of trainers is carried out in teacher training colleges or "schools of education" attached to universities or directly established as part of the University itself.

It has been assumed up to now that the " academics" responsible for this training regardless of their discipline, were themselves "equipped" with a good pedagogic experience. But the mediocre results registered in many higher educational institutions have produced an awareness of the need to secure pedagogical training for all higher education staff. This is why the Executive Committee on Higher Education in Africa, set up in 1986 to advise the Director

General of UNESCO, recommended that pedagogical training be provided in institutions of higher education.

As regards trainers who receive pedagogic training, L. Vandeveldé remarks that the training represents most often, only 10 to 30 % of the programme, with scientific expertise overriding training even in this case. And L. Vandeveldé concludes that they are "prepared rather as researchers in different disciplines than as educationalists supposed to organize creative, participatory and formative learning, this then, should be the goal of the IFOMA project's training programmes, to organise such a creative, participatory and formative learning.

4) Common trunks of training

In order to develop one same spirit and attitude among the different educators of the IFOMA project and guide them to form an inter-disciplinary group, their training could be conceived according to the common trunks of training approach. This approach can be succinctly summarized as follows :(1)

- choice of a problem (educational, in relation to development), common to the personnel of various categories (agents/actors) and to which are linked the needs and demands in education ;
- establishment in common, by such personnel of a diagnosis of this situation or problem, which in itself already constitutes an aspect of training, that geared towards the search for relevant information ;
- identification of the tasks that each of the agents/actors should normally accomplish, according to his speciality, in order to contribute to the solution of the problem and the performance of the tasks deemed useful in the light of the diagnosis;
- research concerning the skills, knowledge, attitudes and know-how that the entire personnel should have, regardless of their specializations ; these should include, for example, aptitude in communications, human relations, the use of

¹ Training needs of education personnel, UNESCO document ED-86/WS/20, December 1985, p.129-130.

educational facilities, the approach to inter-disciplinary problems, the evaluation of the results of an action etc... ;

- preparation of a common core of training curriculum making it possible to inculcate these common qualifications in the entire personnel concerned, and more generally, definition of a strategy for implementing such a common trunk, bearing in mind the resources available (optimum conditions for their use, administrative, institutional and financial constraints).

The inter-disciplinary approach is a training method which promotes cooperation: since all participants are trained together, they become more keenly aware of their respective responsibilities and their complementarity, but it is also a method which strengthens participation and communications. It is therefore particularly suited to the training of teachers within the scope of the IFOMA project.

BIBLIOGRAPHY

Norman M. Goble *l'évolution du rôle du maître*. UNESCO, 1977.

G. Berger et E. Brunswic: *l'Education et l'approche systémique*, UNESCO, 1981.

S. Rasseedk et G. Vaideau : *les contenus de l'éducation*, UNESCO, 1987.

R. Lallez : *la formation des formateurs d'enseignants*, UNESCO, 1982.

J. Poth : *langues nationales et formation des maîtres en Afrique*, UNESCO, 1979.

UNESCO - *Les personnels de supervision pédagogique : nouvelles fonctions et formation*, , 1986.

UNESCO - *L'éducation en matière de population et la formation des enseignants*, 1984.

UNESCO - Guide pour ateliers de formation de formateurs de personnels d'éducation, 1982.

UNESCO - Les enseignants et les autres professionnels de l'éducation : nouveaux profils et nouveaux status, 1975.

UNESCO - Pour une étude sur le rôle du directeur d'école dans la formation en service des enseignants, 1979.

UNESCO - Atelier sur le travail productif et la formation des enseignants , 1982.

UNESCO - Consultation sur la recherche de troncs communs de formation au Sahell, 1983.

UNESCO - Besoins en formation de personnels de l'éducation, 1985.

UNESCO - Colloque inter-régional sur les politiques et plans intégrés de formation des personnels de l'éducation.

J. Poth : L'enseignement des langues maternelles africaines à l'école... Comment ? UNESCO, 1988., 1988.

UNESCO - Programme régional d'élimination de l'analphabétisme en Afrique, 1984.

THE LINK BETWEEN EDUCATION AND THE LABOUR WORLD - LESSONS TO BE DRAWN FROM SOME AFRICAN EXPERIENCES

by

Amara FOFANA

INTRODUCTION

Most African countries after independence, have sought to make their educational system more suited to meeting the socioeconomic needs of their populations. This restructuring was characterised by the importance given to education for productive work, the use of national languages, and the production of teaching materials.

The inclusion of productive activities in education curricula was one of the promising measures adopted by African States in order to increasingly link the school to life and to the world. of work. However, the systemization of the modalities for the application of the principle of the integration of productive work in education took place later, during the proceedings of the 38th Session of the International Conference on Education organized in 1981 on the theme "Interrelationship between Education and Productive Work".

During the discussions in which the majority of African Member States participated, the expressions "education" and "productive work" were used in a wide sense to include all types of socially useful activities.

In this context, the discussions were broadened to focus on the relationships between education and the world of work several activities of which (concretely creative and socially useful activities) were embodied in the curricula of educational institutions and had following objectives:

- a) to teach pupils and students to assess the economic and social value of different types of work;
- b) to contribute to the relevance of educational curricula and the promotion of the economic, cultural and social development of the community;

- c) to contribute to improving the employment and career prospects of all individual by providing equal access to all levels of training in the differenc fields of the urban and rural economies;
- d) to assist in securing a better understanding of the economic and social relationships in active life by giving special attention to the preservation of the physical environment.

EXPERIENCE IN LINKING EDUCATION WITH WORK

1. Pilot experience in Sierra Leone: the Bunumbu project

The Bunumbu project was designed in 1974 by the Sierra Leonean Government as a contribution to the programme for improving the quality of primary education in the rural areas.

Hosted by the Bunumbu Teachers College, the project has developed a primary education programme adapted to rural areas and consequently has restructured the classical programme. of teacher training

Graduates of the programme were trained to serve as teachers, community development agents and adult educators. By creating a school/community interrelationship, the programme has strengthened and improved the quality of education and living standards in the village communities of the Bunumbu region.

Starting as an experimental pilot project initially limited to a teachers college, 20 pilot schools and 10 associated schools, the project is now to be generalized for the benefit of the greatest number of children and for the overall development of Sierra Leone.

2. A Pilot experience in Kenya: Basic education for street children

In the towns, certain parents are opposed to the practice of productive activities by schools because these would leave the children "to the street" and hence at the mercy of accidents and without surveillance. One of the objectives of the Undugu

basic education programme (UBEP) consists specifically in improving the living conditions of those children popularly known in Nairobi as "car park boys". The UBE schools are aimed at providing for these youths, a training which will reinsert them into a rural environment where they will be able to acquire skills that would serve them in their communities of origin. They spend three years studying, for example, animal husbandry particularly, poultry and rabbit breeding, health education, home economics, and commercial practice. Some schools have their own whose vegetable produce is sold in the neighbourhood.

3. Practical middle-level education in Senegal

As from 1971, Senegal entered a period of education reform. The experience of practical middle-level education arose from the need to offer educational opportunities to the youth leaving the primary cycle and the first cycle of secondary education by providing them with a training in order to integrate them into the agricultural and artisanal production structures of their villages.

From the start of the implementation of the project, some socio-cultural and socio-economic obstacles emerged. The weight of gerontocracy and seniority is sometimes averse to the access of the youth to independent circumstances. Moreover, the dependency of the rural economy on the urban economy is reflected basically by the benefits that the latter derives from the investments made at the level of the former, and this compels the rural youth to migrate to the centres which attract considerable revenues.

4. The Tanzanian Experience in Community Education linked to development

After the Arusha Declaration (1967) the United Republic of Tanzania embarked on the renovation of its educational system with a view to linking the school more closely to life, to the community and to work. There is active participation of teachers and students in village activities, based as a matter of priority, on production in the rural and agricultural sector.

Some significant results were registered such as the general acceptance that education and work are inseparable, and especially the idea of integrating the school with the community. However, the total output of primary and secondary schools managed to cover only 7.2% of the current educational expenditures for the 1978 - 1979 school year instead of the 25% envisaged, according to a Tanzanian education official ("Learning and working" pp. 218-220). According to his analysis, the experiment sometimes produced the opposite effect in certain regions; the students leave the village at the end of their studies.

Like most African countries, Tanzania also suffers from the negative effects of the crisis or the economic situation or both, this making insignificant the financial resources capable of promoting a real implementation of projects which were highly promising at the start.

5. Introduction to productive work in Benin

The reform of education and basic education in Benin, conforming to the directives of the 1975 Orientation Law gave priority to the integration of productive work in education. The new school of Benin is considered as a central motor of economic and social development. Its objective as a unit of production is not only the introduction to production but also the familiarization of students with the management of resources derived from the sale of products which resources should supplement the operating costs of educational institutions. Inadequate funding and other difficulties are currently a limitation to the scope of the experience.

6. Education for production as a motor for educational progress in Nigeria

The General secondary technical school of the African Church at Ikere Ekiti, Ondo State, Nigeria.

In a study produced for the Experts' Meeting on the promotion of productive work in education (1980), Oyewole Jegede, the founder of this secondary school, declares that "the philosophy of the school is centred on the idea of production for education and survival". The school is

established in an agricultural zone, and its club activities include food production. The school also provide training in various trades such as building, painting, electricity, carpentry and bricklaying; and students have a relatively free hand to choose from these options.

Initially the students were unwilling to support the implementation of this programme since it was not a part of their final examination. Its success according to the author depends on the training of competent teachers and the preparation of new methods of evaluation and mobilization on the basis of the education -production relationship.

CONCLUSION

In spite of the efforts made, no country has completely resolved the problem of the integration of productive work at all levels of education. Some implementation are considered as common to the whole region: lack of financial resources, lack of appropriate teaching materials, the poor alignment of the initial training of teachers with their future tasks.

In the face of the difficulties, some deviations are observed: at one place the productive activities are constantly increasing, at another, they are completely ignored. The balance is difficult to achieve because of frequent changes in options in this regard.

The evaluation conducted up to now has been based essentially on quantifiable results such as the objects produced, the quantity of work achieved and the accumulation of monetary gains. But difficulties arise when it comes to evaluating such elements as changes in attitudes, self-realization, the aptitude for community life. Attitudes are deemed "positive on the whole".

The 8th NEIDA Regional Consultation meeting made a certain number of recommendations in these different areas for activities to be undertaken in 1990-1991:

- the organisation of training seminars geared towards the procedures and techniques for the evaluation of practical programmes of productive work in Africa;
- the continuation of studies of these evaluations in order to strengthen the combination of the two programmes

"education and productive work" and "education for development in rural areas".

However, the similarity in the objectives of these priority fields of intervention should not make one forget that "Education and productive work" concerns not only the rural areas and populations even in Africa. Urban and sub-urban areas should also be taken into account not only because of the social value of work whatever may be its nature, but also because it is in these areas that the unfavourable attitude to manual work is mostly observed. Especially is this so if it is considered that a large number of the youths leave school prematurely, while others leave the rural areas for cities in search of a hypothetical employment and not less hypothetical improved living conditions.

NEW EDUCATIONAL OBJECTIVES , NEW CHALLENGES AND NEW EDUCATIONAL TOOLS IN RELATION TO THE PROJECT

by

Pai OBANYA

Any adequate form of education is characterized by its relevance. This implies that the form of education in question should conform to different levels. At the philosophical level, it should conform to the current line of thinking and values. At the socio-cultural level, it should be adapted to the cultural environment for which it is designed. At the historical and developmental levels, it is expected to transform the evolutionist trends of the environment in terms of its past and its foreseeable future.

This presentation is designed to focus attention on deeper issues relating to the relevance of African education. To this end, it will attempt to study the immediate and future challenges of African education and examine from that standpoint, the objectives and tools of education which should help African countries to meet these challenges.

IMMEDIATE AND FUTURE CHALLENGES

The discussions on African education have rested on some analyses derived from three principal fields: Socio-cultural, economic and pedagogic. Socio-cultural analyses tend to predominate. They were also the first form of criticism levelled against African education at the time of accession to independence. Some questions were raised as regards the "Africanness" of African education and the plethora of reforms which have been undertaken since then, have been especially centred on the "acculturation" of national educational systems. Curricula were Africanized, especially in terms of the contents of subjects such as the social sciences and languages. The promotion of the cultural

heritage also became the priority objective of education in many countries.

The economic literature on African education seems to have developed with changes in the line of thinking in the field of development economics itself. Initially, the discussions were based on the contributions of education to development in general, leading to such exercises as manpower projections, cost-benefit analyses, calculations of schooling rates, unit costs, class repetitions and the financing of education together with a vast diversity of methodology developed to this end. Nowadays, the economic debate on African education is dominated by the prescriptions of the IMF and the World Bank on structural adjustment. From prescriptions on the need to reduce educational expenditures, the debate has now turned to the possible cures for the social evils of structural adjustment particularly in relation to the quality of education.

The pedagogic discussions on African education are deeper particularly when the debate is centred for most of the time on educational results. How much and how have students learned? What have schools and teachers contributed exactly to the learner? Of what use is the learner after leaving school? Such questions have been raised and their answers are often designed bearing in mind the "input" variables which characterize the economic and socio-cultural variables on education.

Although, the discussions on African education tended to target the special interests of the discussants (economists, donor agencies, teachers, etc.), there is an essential unit in the preoccupations which could be summed up as follows: by saying that there is certainly a need for new orientations in African education, what these new orientations are (or ought to be), constitutes the immediate and future challenges of education in the region.

In clearer terms, the challenges can be summed up as follows:

1. making education accessible to all strata of the population
2. making education usable by all strata of the population, and
3. making the education process itself regenerative.

These three major challenges are interrelated. Each has the right to and should benefit from education. The education of each person should improve the beneficiaries (the individual and the society). Education should not only improve the society and the individual but should itself be also improved, both as a service and a means of enriching the individual and the society.

TOWARDS SOME NEW EDUCATION OBJECTIVES

The objectives of education, which mean the expected goal that education should attain (and the visible and positive changes that it should produce) are often the products of the challenges. By revealing the exact nature of a societal (or educational) challenge, we find ourselves formulating the objectives of education as follows :

To help the appropriate objective formulation process to cope with the needs of new orientations in African education. Thus, it would be appropriate to go into some details regarding the challenges mentioned above.

Making education accessible to all means a re-conceptualization of education as well as a determination of the specific form of the education that each segment of the population should receive. A re-conceptualization of education will take us beyond the school and will be concentrated on the appropriate opportunities for discovering for oneself and ensuring the continued improvement of oneself. For such opportunities to be accessible to all, the key term is "matching". The opportunities will thus be diversified to meet the continual needs for improving among children, teenagers, adults, the aged, the rural dwellers, urban dwellers, the handicapped, both sexes, the unemployed, skilled persons, the employed, unskilled persons, during the various stages of life, in all types of life situations, and engaged in a large variety of day-to-day activities.

For education to be usable by its beneficiaries, it should satisfy the individual needs of learning, knowing and serving; hence, there is an aspect of self-satisfaction and also an aspect of service for the society. On the one hand, the beneficiaries should develop themselves to be useful to themselves. On the other, the society in general should

benefit from the result of educating the individual. Indeed, one great dimension of the challenges of "education" today is that the beneficiaries are not useful either to themselves or to society in general. To be useful to oneself and to one's society is therefore a timely objective for the future orientations of education in Africa.

One form of regenerative education is a form which satisfies the major conditions. It is a form which is aimed at making the beneficiary of education a better person, who continually gives account of his deficiencies and who is capable of using the most appropriate resources of the society to remedy such deficiencies. It is also a form of education in which a system of self-criticism is established in order to constantly ensure the search for answers to this criterion of adaptability through education. An active, regular and positive regeneration should therefore, be an appropriate objective of every future educational orientation in Africa.

These three general objectives may be split into more specific objectives to show how they can be linked to the new challenges of education in Africa in a more appropriate manner. We shall present them in two columns: column A for general objectives and column B for more specific objectives:

A. General Objectives

1. To create opportunities for the discovery of oneself and for the improvement of one's capacities

B. Specific Objectives

i. To create opportunities of learning for different social and age groups of the population of a country: the youth, old men, persons of different activities

ii. To create opportunities of learning for different social and age groups of the population of a country : the youth, old men, persons of different activities..

- iii. To take account of structures out of the school for education, the system of learning, informal economic activities in most African societies, traditional organizations, etc.
 - iv. To "give full value to" the activities of the recreative life of African societies (fishing, agriculture, cottage industry, banking and insurance systems, childcare centres, sports, traditional medicine, etc.) by making them the objects of serious studies at the level of formal and non-formal education.
 - v. To give the necessary recognition to the qualifications required outside the school; this is the case with the official certification of the products of the systems of learning in Togo.
2. To train persons who are useful to themselves and to the society in general
- i. To promote creativity, learning by discovering the habit of questioning, and the practical qualifications appropriate for all classes of the population of a country.

- ii. To use "what is good" in the society as a method of teaching and learning in all forms of education, that is, to preserve and improve the environment, preservation of cultural heritage, cultural adaptation of technology, culture of maintenance, improvement of living conditions and living standards.
3. To create in all societies, a form of regenerative education
- i. To use the inventions of ordinary persons as a method of enriching the content and method of education.
 - ii. To ensure that the "ordinary person" becomes the actor and the determinant of innovation and change in education.
 - iii. To ensure that any "act of education" (policy, methods of teaching and learning, teaching materials, curricula, etc) is considered only as a stage of the development process that is to say, something which should be treated as provisional and subject to adaptation in changing times.

These more specific objectives are only indicative of the type of ideas which should guide the type of education that strives to cope with the immediate and future challenges of Africa. The list is in no way exhaustive.

WHAT NEW TOOLS FOR EDUCATION IN AFRICA ?

The challenges of development and modernization facing African education are such that it needs to be accessible, usable and regenerative. To achieve this, we should begin to think of the type of textual objectives described in the preceding section. The objectives should be more operational through the instrumentality of the appropriate type of tools. By this latter term, we refer to what is commonly known as teaching and learning materials. The argument here is that the new challenges and new objectives of African education that are envisaged, require new types of teaching and learning materials.

The teaching and learning materials are usually classified among the textual materials and non-textual materials. While some progress has been made in the field of textual materials, Africa was relatively slow with unprinted materials. With the two types of materials it is necessary to have a new approach.

The textual materials should become more active. The passive textual materials are characterized by a type of information, in the form of tales, explanations of principles to the reader, and so on. Therefore, they tend to demand more memory work on the part of the learner and are thus, more adapted to those who have an intellectual inclination.

Such materials also require speedy reading and concentration since a lot of information is crammed on each page.

The active materials, on the other hand, lay greater emphasis on the practical work which should be done by the reader. The presentation in prose is relatively short. The illustrations and exercises are done at each stage and greater importance is given to what it does outside the text. Such materials have the advantage of encouraging reflection on and the practical application of knowledge. They are not a novelty in Africa, because they were used successfully in materials developed under the influence of SEPA (Programme for the teaching of science in Africa).

One useful form of active materials is that generated by the learner. The stories written by the students can thus be used for different reasons, within and outside the class. At the

non-formal stage, they become very useful, since the learners have a variety of experiences capable of enriching the teaching-learning process.

The new challenges to African education will also require more integrated materials. The integration can be achieved in the form of content and methodology. The integration of content is a process by which the same printed material can be used for teaching different discipline. In some African countries, science materials were developed to include the applications of science to agriculture, health and nutrition. In other cases, new subjects such as environmental and population education were simply included in texts produced for traditional educational disciplines.

The integration of methodology is a process by which teaching material combines some texts with unprinted materials. In such cases, the learner does not only learn but also undertakes other activities which help him to ask questions, discuss, discover and resolve problems. The above-mentioned SEPA materials are of this nature.

It is beneficial to continue the two types of integration (that is, content and methodology) in the same materials. This helps to expand particularly the learner's field of activity for a greater transfer of learning.

In addition to the creation of more active textual materials, the current challenges of education in Africa would require that greater emphasis be placed on non-textual materials. Thus, in formal and non-formal situations, natural activities (leisure, earning one's living, managing a company, buying and selling in the market, etc.) could be reproduced in graphical or audio form and "exploited" for teaching purposes.

The same remark can be made with regard to concrete objects. Thus agriculture is better thought about on the farm, while food preservation can be better studied by working with persons who preserve food, and the manufacture of soap by really manufacturing soap etc. These ideas are not entirely new, but in practice, they have not received the required attention in Africa, particularly, at the formal education level. The least formal sectors which depend more on such activities and objects still need to be enhanced.

CONCLUSION

This document has attempted to describe: (a) the major challenges facing African education, (b) the general and specific objectives of education which could be derived from such challenges, and (c) the implication of such tools for the development of teaching materials. If education is to be seen as something which goes beyond the school, as an opportunity that delights everyone and as something which should transform society for the better, the ideas deserve at least to be tried out.

There are some constraints to giving concrete expression to the suggestions made in this document. Finance is a constraint often mentioned but the problem goes beyond that. In most cases, the problem has been the constraint of a change in mentality. It appears therefore, that the battle for educational reforms in Africa should address this aspect of our problems. Finally, what has been described in this document represents only an indication of what the line of development could be. These suggestions are not made to be adopted, but to motivate subsequent reflections.