

**IMPROVING THE EFFECTIVENESS  
OF  
CURRICULUM DEVELOPMENT AND REFORM  
IN AFRICA**

*A handbook for curriculum planners*



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## FOREWORD

We are drawing close to the end of a decade since the declaration of Education for All at the World Conference on Education for All which was held at Jomtien, Thailand, in 1990. Education for all implies learning for all, and in this context the curriculum is a critical input to education. During the decade, it has attracted much dialogue and reform. Some improvements have been made in terms of its objectives, content and methods, However areas concerning evaluation and feedback have not received much attention in developing countries.

Creating sustainable improvements in the school curriculum has been a virtual challenge to the school system, particularly in Africa. As far back as 1961, when the Addis Ababa Plan for African Education was prepared, it was recognized that African Education allowed "no room for the African child's intelligence, powers of observation and creative imagination to develop freely and help him find his bearings in the world". There was a call to "revise and reform the content of education in the areas of curricula, textbooks, and methods, so as to take account of the African environment, child development, cultural heritage, and demands of technological progress and economic development, especially industrialization..." *General History of Africa. VIII page, 687.* This call is as relevant today as it was in 1990 when the World Declaration for Education for All was prepared.

The recognition of the importance of curriculum reform in improving school achievement, led to the organization of an international consultation on the topic of "Enhancing the Effectiveness of Curriculum Development and Reform" in May, 1997, in Kenya, which was sponsored by ISESCO and UNESCO. The participants were Directors of Curriculum Development Departments and professors and lecturers in education from 16 African countries (Ethiopia, The Gambia, Ghana, Kenya, Sierra Leone, Uganda, Zambia, Zimbabwe, Benin, Comoros, Guinea (Conakry), Mali, Senegal, Chad, Togo and Malawi. They shared their many years of experience in the field of curriculum development and reform. An outcome of the Consultation was the preparation of this handbook for curriculum development and reform in the African context.

It does not claim to address all the issues concerning curriculum reform and development in Africa, but it provides a critical framework for countries intending to undertake curriculum reform. It emphasizes the need for the evaluation of existing curricula and for special consideration to be given to the cost implications of curriculum design. It supports the new trend for building consensus in the reform process and for providing a feed back channel for curriculum renewal.

I hope that this experience does not end here, but that curriculum developers in Africa will have other opportunities for open dialogue and the exchange of experiences that will lead to improvements in the curriculum reform process.



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# IMPROVING THE EFFECTIVENESS OF CURRICULUM DEVELOPMENT AND REFORM

## INTRODUCTION

Ever since the inception of organized schooling, there has been much discussion about the curriculum and the role of the child in its development and delivery. The extreme positions have been a curriculum designed by the teacher and the learners, to one that has been designed by high level specialists who decide what children should learn. This dialogue has often been linked to the aims of education. There were those who argued for a "child-centred" curriculum, others opposed this approach on the grounds that it was insufficient for the education of children. However, it was undeniable that the nature of the child must have a place in the curriculum. Simultaneously the industrialization of societies demanded that the school prepared people for the labour market.

Thus amid much controversy, curricula evolved in developed countries. The educated classes took responsibility for their development, probably with the objective of accelerating progress in the country. A curriculum determined by specialist, to the exclusion of the beneficiaries, was not considered satisfactory, so over decades of controversy, developed countries have tried to resolve the issue by arriving at a combination of both extremes. Nonetheless, curricula evolved out of their societies.

While the curriculum was being debated in the developed countries, in developing countries, particularly in Africa, the programme for educating the young was directly related to their day-to-day lives, their cultures and their values. The emphasis was on preparation for adulthood. The teachers were the elders and older women in the communities. The girls learnt from the women and the boys from the men. They determined their own set of tests, which were demonstrations of skills that they had acquired. This natural curriculum, therefore, provided learning on the topics of housing, food and nutrition, agriculture, clothing, human reproduction and health, social relationships, cultural festivities, arts and crafts, and religion. Education was the responsibility of the community that provided the models to be followed.

African education did not evolve from this "natural school", but in most respects copied western ideas. This transfer came with the introduction of organized schooling that was accepted by the more affluent groups. It was no accident that the school curriculum reflected the aspirations of this class rather than the needs of the masses of the people. This curriculum approach has dominated African education systems for decades. The result is that only those children who are in an environment that supports achievement in the context of the curriculum succeed at school.

In recent years, there has been a global call for the school to become more meaningful for all children. The opening of new information highways, and the shift into a development paradigm that puts human development at the core of economic reform programmes, now support this growing demand. Human cultures, sensitivities and aspirations are now being considered in development strategies. Education as a contributor to social change and transformation is being emphasized. In this atmosphere, education systems are being brought under pressure to rethink the

aims of education in ways that give the highest priority to human development.

The new paradigm in curriculum reform is to generate curriculum ideas from a broad spectrum of society, and to achieve national consensus on curriculum goals as part of the curriculum reform process. Among the stakeholders included are teachers, community leaders, parents, politicians, private sector representatives, and religious leaders. It is expected that this approach will result in a curriculum that will offer more meaningful learning experiences to children.

The involvement of the wider society in the curriculum reform process is an important breakthrough. Not only will it encourage inputs from various social groups, but it should also generate interest in actual performance at the school level. It will also help the public to recognize what can reasonably be expected of a school system and the role that the environment can play in helping schools to promote learning achievement for all.

When education was formalized, the content and methods of 'natural' education disappeared, and were replaced by a programme considered more relevant to a modern or modernizing society. The effect of this was to devalue 'natural' education, and to make it appear inferior to other means of learning. The formal curriculum stressed the importance of the Three Rs - reading, writing and arithmetic - and demanded books, trained teachers, school buildings and supervisors. Local communities, however, did not have the resources or the ability to provide such formal education. There was a lack of publishing and printing facilities, there were few authors to write the books that were needed, and there were few individuals who could be trained as teachers. There was also little understanding of the benefits that formal education could provide. In such circumstances when formal education programmes were developed, reliance was placed upon the curricula and materials, which had been produced elsewhere. This also decided the cost and choice of the educational programmes that were introduced.

African governments are still searching for strategies leading to affordable education systems which are appropriate for the people they are meant to serve, and which will at the same time modernize their societies. They are faced with a dilemma: they recognize the need to establish both an education system which takes into consideration the local environment, but also attempts to keep pace with rapid technological progress. The gap is already wide between Africa and the other world continents. It can be compared to the divide between a chalkboard and a lap top computer.

Educational reform has been proceeding in Africa, however, with the assistance of external donor agencies - notably The World Bank. In the last three decades billions of dollars have been invested in African education. In consequence between 1985 and 1995 the number of primary school enrolments has increased from 75.6 million to 92.1 million. Today there are more African teachers, authors, publishers, printers, and trained personnel in curriculum development, educational planning, testing and measurement, educational research and development and educational technology than ever before. There is a growing number of experiments and projects designed to improve the quality and availability of education. Nonetheless, further effort is still needed to make education both affordable and within the reach of all.

Although much has been achieved, the rapid growth in population has outstripped the capacity to meet the demand. So despite the considerable investments made there were still 141 million illiterates in Africa in 1995, and vast numbers of out-of-school children. The quality of the education that is provided also leaves much to be desired. Enormous problems have to be faced if sustainable education systems are to be established which ensure that the right of every child to good quality education is honoured.

This document is concerned with one aspect of educational development, viz. the curriculum, its reform and development. Many countries have, in fact, carried out curriculum reforms, though the benefits of such exercises have not always been what their planners had hoped. There are a number of reasons for this. When the national authorities decided to implement reform programmes it was automatically assumed that the curricula in use were unsatisfactory, though their inadequacies might have been due to a variety of factors such as the objectives set, the curriculum content, inappropriately or untrained teachers, poor quality teaching and learning materials, and the procedures used for evaluation and obtaining feedback. There have been occasions, too, when changes in the social and economic policies of a government demanded corresponding changes in the school curriculum. This was the case in the 1970s when self-reliance and socialism were advocated in some countries, and educational curricula were changed accordingly.

In many instances the curriculum in use is denied the support system that ensures that it will be effective and, no matter how many reforms are made, it is still incapable of producing better results. Whatever may have been the reasons for changing the curriculum, reforms were made. The challenge today is to carry out curriculum reforms that will result in increased participation in schooling and in improving the quality of the education provided.

**Unit 1: THE ROLE OF THE CURRICULUM IN THE ACHIEVEMENT OF EDUCATION FOR ALL**

**The World Conference on Education for All, Meeting Basic Learning Needs**, held at Jomtien, Thailand, from 5 to 9 March, 1990, was a historic event. It was the largest world conference on education ever held, during which issues were raised, challenges offered, and recommendations made, which produced benchmarks for educators, not only for the 1990s, but also for the foreseeable future. The World Conference on Education for All reaffirmed the right of every individual to education and identified five main principles:

***Broadening the concept:*** To meet the basic learning needs of all demands more than a mere commitment to the concept of basic education.

***Access and equity:*** Good quality basic education services should be accessible to all without exception: boys and girls, young people, men and women, and measures must be taken to remove the inequalities which now exist, and which deny access to education to large numbers of the world's population.

***The acquisition of learning:*** The extent to which the provision of education will result in human development and social and economic progress, depends on whether or not relevant learning takes place, and whether it results in the acquisition of useful knowledge, reasoning skills, technical skills and values. The emphasis must, therefore, be on what is learnt, rather than on enrolment figures and the number of certificates awarded.

***Broadening basic education services:*** The aim of meeting the learning needs of all societies and age groups requires the following to be taken into account:

*Learning begins on the day of birth*

*The primary school is the main source of learning for children outside the home*

*The learning needs of young people and adults differ from those of children, and require the provision of relevant and appropriate services*

*All available means of obtaining and conveying essential information on social concerns should be used*

***Strengthening partnerships:*** While national, regional and local educational authorities have responsibility for the provision of basic education for all, they are unable to provide all the human, financial and administrative resources that are needed. There must be a much wider public involvement in the development of educational services. *World Declaration on Education for All and Framework for Action to Meet Basic Learning Needs, 1990*

These five principles are usually reflected in national education policies and development plans. The aims of education, as stated in African programmes, are both ambitious and complex,



and to achieve them is a wide-ranging and time-consuming exercise, which demands close co-ordination and collaboration with all concerned sectors and partners. The educational system in operation and the curriculum followed have key roles to play in the development of an effective service designed to provide education for all, that is, learning for all.

From the time of Plato and Aristotle the importance of the school and the curriculum in bringing about change in society has been recognized. It is because of the catalytic role of these two factors that they are also the first to be attacked when inadequacies occur in the education system. The part played by educational planners in the promotion of effective education for all programmes, is a crucial one. They have a duty to determine objectives, decide how they are to be reached, indicate the resources to be used, develop the curricula to be followed, and formulate the evaluation procedures to be adopted.

There is no doubt that African educators recognize the crucial role of the curriculum in achieving learning for all. The challenge today for curriculum planners is to evolve a curriculum or curricula that reflect the principles of education for all. Since the 1960s much work has been done to improve curriculum development in Africa. Many countries established institutes of education with the objective of improving curriculum development and producing good quality educational materials. In order to build the capacity for curriculum development and reform in the Institutes, educators obtained undergraduate and post graduate degrees in both African and foreign universities. As a result of these efforts the Institutes of Education became the focal point for curriculum reform. The curriculum process then evolved. The integration of subject areas, (e.g example, geography, history and civics education) became social studies in the lower primary grades, a rethinking of the content and scope of the primary education curriculum and the introduction of innovative approaches and methods were among the changes that took place.

What has not been clear is the extent to which the Institutes monitored the learning outcomes of the curriculum.

Some questions that are now being asked are to what extent the curriculum:

1. incorporates the culture of the environment, so that knowledge is gained by meaningful learning?
2. supports individual development and learning achievement while giving consideration to national development?
3. is sensitive to social inequities - gender, socio-economic status, and ethnic minorities, thus providing the variety of learning opportunities that will support achievement for all?
4. prepares children for lifelong learning?
5. prepares children for a productive adult life and for meeting the challenges of a changing world or being able to shape their own destinies?
6. supports individual aspirations and simultaneously works towards building national unity.

In addition to these questions, curriculum planners are expected to follow a participatory approach in both planning and the implementation of the curriculum. In illiterate societies or communities,

this approach requires creative and imaginative strategies for meaningful participation. Ultimately education standards have to be maintained and children who attend primary school should at least acquire basic numeracy and literacy – which are fundamental to lifelong learning.

### **When to Reform the Curriculum**

Curriculum reform is necessary when the one in use is no longer responsive to the needs and interests of the society it is intended to serve. Curriculum reform may be either evolutionary or revolutionary. In any case a number of factors, such as those listed below, must be taken into consideration. Among them are:

- a) There should be an analytic assessment of the existing curriculum in order to justify any proposed reform.
- b) Learning needs should be reviewed from the point of view of both individual learner requirements and national development needs.
- c) A consensus relating to curriculum reform must be established.
- d) Curriculum objectives, content and methods must be appropriately determined.
- e) Materials needed to support the curriculum must be provided.
- f) Personnel needed for the design, implementation and evaluation of the reformed curriculum must be available.
- g) The reformed curriculum must be accepted by educators and followed in educational institutions.
- h) Evaluation and feedback procedures must be established and used.
- i) The means of costing and financing the reform programme must be determined.

It is a lengthy and laborious process to satisfy all the above criteria. However the extent to which curriculum reform brings about the desired change will depend on the attention given to them.

The starting point of a curriculum is critical to the child's ability to construct knowledge in the context of formal education. A study conducted by UNESCO in the developing countries showed that, by age six, children have already learnt some concepts that should form the beginning of their learning experiences in school. They already have methods by which they learn and the assessment of their achievement is by doing. In an atmosphere where the individual is being put at the core of development, countries should be encouraged to undertake their own studies on the learning experiences of children before they start primary education, in order to determine the appropriate starting point of children in the various areas of the curriculum. Such an approach should result in a curriculum that provides no opportunity for the young child to fail, in other words a "failure proof curriculum."

## UNIT 2: REFORMING THE CURRICULUM

### 1.0 Issues Leading to Curriculum Reform

As stated before, a careful assessment of the existing curriculum is essential before any reform is undertaken, and must take into account the country's education policy and political, economic, demographic, cultural, social and technological environment. Problems to be solved, needs to be satisfied, and priorities to be addressed, must be identified, and recommendations made for action. Related matters such as access to learning, the extent of participation, retention, relevance, efficiency and the quality and effectiveness of programmes, and the provision of training, must also be considered. Major changes in the objectives, content and methods of teaching used in the curriculum should be reviewed, against the background of existing educational achievement and the constraints that have to be overcome. In the process of curriculum evaluation there are many questions to be asked. An important question is whether the support system was put in place for the implementation of the existing curriculum. If not, will it then be put in place for the revised curriculum?

The challenges faced in the implementation of curriculum programmes vary from one country to another. In developing countries, however, many common issues are encountered. Among them are the following:

***Focus on examinations:*** In many developing countries education is geared mainly to the passing of examinations on a narrowly selected number of subjects and competencies. Poor achievement in examinations can lead to charges of inadequate curricula or incompetent teaching or both.

***Untrained teachers:*** Those who teach are only as good as the training that they receive and use. Large numbers of teachers are ill prepared to deliver the curriculum. Many classrooms have remained teacher centred and efforts to introduce a child-centered approach on a national scale have been fruitless.

***Social, economic considerations:*** In some countries the prevalence of unemployment is attributed to poor curricula. In Zimbabwe, for example, as in many other countries, demands are made for curricula that will promote entrepreneurship and technical skills, and which enable school leavers to create employment for themselves, rather than become job seekers. Questions have been raised regarding the extent to which the school can adequately address technical skills development and whether school education should concentrate on the basic competencies needed for adult life. Such competencies would include, problem-solving, decision-making, analysis and communication skills, as well as those which are not trade specific, such as designing and pattern-making, etc.

***Exposure to new technologies:*** These often serve to provoke and encourage curriculum reform, since school leavers often find that they need new skills and knowledge to live and work in the modern world.

**Appropriate research:** Research often helps to identify those curriculum areas that require in-depth assessment.

**External interventions:** The work of international organizations and conferences (such as The World Conference on Education for All), and the work of external agencies and financial institutions, such as UNESCO, UNICEF, UNFPA and The World Bank, all bring influence to bear on the development and formulation of curriculum projects.

## 2.0 Needs Assessment

The main purpose of needs assessment surveys is to identify the strong and weak elements in existing programmes, and to find ways of improving the quality of the learning they provide. This is fundamental to curriculum reform. A needs assessment exercise has the potential to do a number of things. Some of them are listed below. It:

- a) identifies what society expects the curriculum to achieve and describes what it actually accomplishes.
- b) reveals the constraints in the way of achievement of curriculum goals.
- c) exposes the difficulties met by teachers and learners when using the curriculum.
- d) considers the views of all members of society and potential beneficiaries regarding the curriculum
- e) requires a cost-benefit analysis, prepared on the basis of reliable data, if the proposed curriculum reform is to be successful.
- f) takes into account the needs of all possible target groups, and considers all the problems that are encountered when trying to satisfy them.
- h) indicates the personnel requirements for the implementation of the programme, e.g: the number of school principals, supervisors and officials required in Ministries of Education.

A needs assessment does not, however, ensure that cost-effective curricular reform will follow. The cost effectiveness of the curriculum reform depends largely on whether the education system as a whole accepts cost effective approaches to education management and administration.

### UNIT 3.0      CONSENSUS FOR CURRICULUM REFORM

A consensus is essential if curriculum reform is to succeed. It is often asserted that a curriculum is only as good as the teacher who teaches it, and the society that accepts it. When teachers do not approve of a curriculum they may refuse to co-operate in teaching it, and may even undermine its implementation. A society that does not accept a curriculum may reduce opportunities for those who have learnt by means of it to take part in social, economic and political activities. The importance of consensus is such that all educational planners and curriculum developers must explore the various means whereby consensus can be reached.

The following are some of the ways in which consensus has been obtained:

- a) Seminars and workshops have been held with all those involved. The private sector and service organizations may be brought in at the earliest stage.
- b) Commissions have been established with the necessary task forces, for the purpose of obtaining the views of all members of society, including teachers and beneficiaries.
- c) Consultations have been held with teachers and their organizations. Curriculum reform often leads to changes in methods of teaching, and this may lead to an increase in teachers' work loads which may, in turn, lead to demands for increased remuneration. Financial increments could encourage an acceptance by teachers of any proposed reforms, but would have budgetary implications.
- d) Closer ties have been developed between the community and its school(s). For example a school board, with representatives appointed from the local community, can become involved in discussions on curriculum reform; or a local craftsman/craftswoman can be recruited to help to plan and teach the practical skills included in the curriculum.
- e) Teachers have been recruited from the community rather than outside it. This will promote the feeling that the school belongs to the community and is supported by it.
- f) School management and curriculum content have been subjects for public debate and frank discussion.
- g) Communities have been consulted beforehand on any impending changes to be made to the curriculum.
- h) The reasons for, and the aims of, any proposed curricular reforms have been widely circulated and discussed in order to remove any possible misunderstandings and in order to reach a consensus.
- i) Local needs have been respected and taken into account. One example is the use of local languages as media of instruction, or the introduction of an agricultural programme in a

farming community

- j) Addressing such areas in the curriculum reform process is by no means easy, particularly in the face of resource constraints. However, the importance of consensus building demands that ways be found to ensure that the curriculum belongs to society.

Educational planners and curriculum developers should be aware of issues of curriculum development and reform and be prepared to respond to them. Among them are:

- a) A rigid centralization of curriculum development fails to take into consideration the fact that learning needs differ from one community to another. The learning needs of rural and urban societies, for example, are not always the same, and this may not be taken into account.
- b) Cultural and religious differences among the beneficiaries may militate against consensus being achieved. Some religious bodies, for example, are opposed to sex and population education.
- c) It may be unacceptable in certain societies to include political studies in the curriculum.
- d) The practice in some ministries of education of making all curriculum decisions at only the highest level, often inhibits the achievement of a consensus.
- e) Disparities in the distribution of educational resources may result in a neglect of the most disadvantaged regions, which may then fail to acquire the necessary capabilities to co-operate in the introduction of curriculum reform.
- f) The use, or non-use, of a local language or the official language as a medium of instruction in schools may cause dissension.
- g) A lack of the necessary administrative structures and mechanisms may make the achievement of consensus difficult. Where there are the necessary community, regional and provincial organizations for political and other purposes, then it is usually easier to hold widespread discussions and debates on proposed curriculum reforms.

Political and administrative structures exist, and have been used as a means of promoting discussion and debate on curriculum reform. Nonetheless, many more countries can make use of these structures.

Among those who have been involved in needs assessment surveys and in consensus building are the following:

- a) The beneficiary learners
- b) Parents
- c) Teachers and teachers' associations

- d) School administrators, school principals, supervisors, etc.
- e) Policy makers
- f) Employers
- g) Politicians
- h) Community leaders
- i) Religious leaders
- j) Social workers
- k) Health workers (including traditional health workers)
- l) Private sector organizations

## **UNIT 4.0: THE IDENTIFICATION OF CURRICULUM OBJECTIVES, CONTENT, METHODS AND PERSONNEL REQUIREMENTS**

Unless there is a clear and competent identification of curriculum objectives and content, and of the teaching methods to be used and the personnel required, then there is little likelihood of curriculum reform being effective. Curriculum planners and developers have considerable responsibility in this regard, and some of the major concerns that they have addressed are listed below.

### **Curriculum Objectives**

There are many factors that contribute to the identification of curriculum objectives, and they depend to a large extent on the society for which they are designed. There are eight principal ones:

- The needs of the learners
- The needs of society
- National goals and ideals
- Educational policy
- The requirements of religious groups
- The requirements of professional groups
- The requirements of politicians
- The recommendations of international organizations

The curriculum planner has an obligation to take all these factors into account, and to draw up the curriculum reform plan accordingly.

### **Curriculum Content**

Curriculum content, which is a major aspect of curricular reform, is closely related to curriculum objectives. The curriculum planner is faced with the need to translate the national goals and ideals, the national policies and policy objectives for education, into a set of disciplines and teaching and learning activities. All three domains of education - the cognitive, affective and psychomotor - have to be addressed. The affective domain is rarely given the attention it deserves and yet it is crucial for the development of a value system and the behaviour of pupils.

Many considerations affect curriculum content. Among them are:

- Curriculum objectives
- The competencies to be achieved
- The different stages of the education cycle
- The ages and educational levels of the learners
- The national education infrastructure and the environment
- The teacher trainers and the teachers
- Materials available for use in teaching



The special needs of learners, e.g.: the disabled, slow learners, gifted learners, etc.  
The amount of learning time available for covering the curriculum  
Teacher/pupil ratio

The reform of curriculum content must ensure that it is relevant and appropriate for the potential learners. It must, therefore:

- a) Take into account the findings of needs assessment surveys and of research studies.
- b) Be flexible and able to adapt to different needs and environments (e.g. large and small classes, different geographical locations and social and economic conditions).
- c) Take into account what children already know before they go to school.

Once the broad outlines of the curriculum objectives and content have been drawn up, they must then be elaborated in greater detail to include the following:

- A framework of the learning required, e.g.: knowledge, personal development skills, practical and wage-earning skills required, cultural considerations, values and attitudes, and the ability to work and live in the modern world.
- Number of subjects to be taught at each level
- The number of weekly hours per subject
- The methods of teaching to be used
- The materials to be used for learning
- The qualifications of the teachers
- The school environment to be provided

The scope and sequence of the curriculum content is an essential first step. It permits a logical approach to the acquisition of knowledge. Nonetheless it should not be so rigid that teachers are unable to change the learning sequence to meet the learning needs of their pupils. A major problem is the source of the curriculum content. Should it relate to the urban or rural environment? Should it relate to the experiences of the more affluent members of society? What are the advantages or disadvantages of the sources to be used? The response to such questions will determine the extent to which the curriculum is relevant to the needs of learners.

### **Methods of Teaching**

The methods of teaching used will also depend, to a large extent, on curriculum objectives and content. Many factors determine the methods to be used in teaching. Among them are:

- The curriculum objectives
- The content to be taught
- The stage in the education cycle at which a subject is taught
- The subject to be taught
- The level of experience of the teachers

The availability of teaching materials

The classroom and workshop facilities and availability of access to libraries and laboratories

Number of pupils in class and multi-grade or single grade groupings

Target learners (e.g. disabled pupils, slow or gifted learners, etc.)

The formulation and implementation of effective curriculum reform is a major challenge to curriculum developers, and requires the utmost skill in the identification and introduction of the most appropriate methods of teaching. Six possible methods of teaching are recommended:

Competence or skills-based teaching

Pupil centred learning

Spiral teaching

An interdisciplinary approach

An integrated or thematic approach

Activity-oriented approach

It may well be that none of the methods listed is appropriate for application in a particular country and, instead, a combination of several of them would be more effective. Each country will have to decide for itself what to do. The need for a close linkage between objectives, content and methods in curriculum reform has already been cited above. However it would be unrealistic to assume that such a linkage will automatically ensue. Care has to be taken to ensure that it does, and this demands that:

- The reforms are in line with the national education policy and its aims.
- A clear definition of curriculum priorities has been made.
- A strategy has been adopted to ensure that the curriculum meets the learning needs of the target groups.
- The findings of research studies have been taken into account.
- Surveys have been carried out and observations made during the planning of reforms.
- Examination and assessment techniques have been reviewed.
- A critical analysis has been made of the content of the curriculum at all levels.

### **Personnel Required**

The personnel requirements for the determination of curriculum objectives, content and methods are listed below:

Curriculum specialists/experts

Curriculum developers

Teachers

Teacher trainers

Subject specialists

Researchers

Examiners

Members of the community: parents, pupils, religious leaders, representatives of trade unions, etc.

Politicians

Members of professional associations

Members of the teachers' associations

Members of the business community

Different countries use different approaches to the technical development of syllabuses for the subjects in the curriculum. Separate commissions may be appointed to describe the objectives and determine the content of a particular subject. On the basis of the recommendations made by commissions, assessment findings or expert steering committees, panels of experts may then be appointed to develop the objectives and content of a particular subject to be taught. These panels may be composed of curriculum developers, school supervisors, teachers, examiners, university lecturers and representatives from the professions, industry, trade unions, the financial sector, etc. The curricula developed should be used on a trial basis, and modifications made, whenever necessary, before being implemented at the national level.

## 5.0 CURRICULUM EVALUATION AND FEEDBACK

Curriculum development and reform is not an occasional exercise, but a continuous activity that reflects the constant changes that are always taking place in society. It is, therefore, the feedback, that is obtained from regular monitoring and evaluation, which provides the impetus for further improvements to the curriculum.

A careful evaluation is essential throughout the implementation process. Some of the main requirements are:

- a) To determine which elements should be evaluated, e.g.: the content, the methods used, the findings, etc.
- b) The selection of the best way to conduct an evaluation.
- c) The selection of the best way to collect data, e.g. through observation, questionnaires, or interviews.
- d) The collection, analysis and use of data, for the purpose of improving the curricular reform programme.

In some countries evaluation is first made by means of consultations with local leaders and chiefs, and with the teachers of subjects in schools. There are six main areas that should be evaluated. They are:

### 1. Human resources

The qualifications of the teachers  
The number of teachers per subject  
The number of male and female teachers  
The number pupils per teacher  
The education supervisors

### 2. Pupils

Educational achievement  
Social and economic background  
Type of learning experiences  
The number of male and female pupils  
The number of handicapped pupils  
Discipline

### 3. Learning Environment

School location  
School administration

Facilities: e.g. laboratories, library, number of classrooms, sports ground, etc.  
Leisure facilities, e.g. clubs, sports, cleanliness, discipline  
Community

#### 4. Instructional Materials

Number of textbooks available per subject and per pupil  
Number of teachers' guides available  
Number of lesson plans used  
Number of chalkboards  
Number of wall charts on display or available  
Number of flip charts used  
Number of school or class library books  
Equipment for the teaching of science, health, or sports activities

#### 5. Methods of Teaching

Rote learning  
Teacher dominated instruction  
Group work  
Multi-grade teaching  
Inter-active learning  
Use of learning aids, e.g.: radio or TV programmes, cassette players, etc.  
Activity-oriented teaching

#### 6. Other areas

Teachers' relations with other school staff and with the school principal, supervisors, curriculum developers, policy makers, the community, etc.

Evaluation findings will include assessment of:

Cognitive skills (e.g. in science and technology, literacy and numeracy, etc.)  
Affective skills  
Psychomotor skills  
Wage-earning skills  
Performance in examinations  
Parental acceptance of the reform  
Community acceptance of the reform  
Curriculum developers' acceptance of the reform  
Educational administrators' acceptance of the reform  
Teacher training (by pre-service and in-service courses)  
Learning environment

It has to be admitted that some curriculum evaluation strategies have been more successful than others. It is desirable that studies be made of those evaluation exercises which produced useful

results and those which did not. Curriculum evaluation results were found to be most useful in situations where:

- a) the curriculum developers were not members of the evaluation team and unduly influenced its findings.
- b) the curriculum developers who reviewed the learning materials used were not biased, since they were not themselves authors of books on subjects taught in the curriculum.
- c) there were adequate financial resources, which permitted the recruitment of a sufficient numbers of evaluators.
- d) evaluators were professionally qualified to carry out the work entrusted to them.

Curriculum evaluation is not carried out in a vacuum. It is done in order to obtain the necessary feedback, which will ultimately lead to an improvement in the quality of learning and bring positive results. Most recommendations made as a result of evaluation should be adopted, after discussion with the beneficiaries. Financial constraints and shortages of textbooks and learning materials may prevent some proposals from being implemented. There is often a failure to invite comments and suggestions on evaluation reports by not giving them a wide enough circulation.

Monitoring of curriculum reform is essential. It is the process by means of which the results of an evaluation is used to improve a curriculum. Monitoring requires a systematic collection and organization of data and information related to the elements included in a curriculum. Such information may reveal which of the stated objectives of the curriculum are given greater emphasis than others, which instructional materials are available and in which quantities, the number of teachers available to teach certain subjects and how many are needed, and the main problems to be overcome. The purpose of the exercise is to ensure that remedial action be taken quickly (e.g. to provide instructional materials where they are in short supply).

After an evaluation has been made, a committee or subject panel may then discuss its findings and, if they are acceptable, may then integrate them into the curriculum and submit them to the responsible national body for approval for general implementation. In certain instances it is the school that conducts the evaluation and sends its report to supervisors or to a committee, which then submits the findings to the National Curriculum Development Centre for consideration. The Centre will then invite comments from educational supervisors.

The findings of evaluations can affect the making of decisions regarding educational policy and operations in a number of ways.

They affect curriculum revision.

They affect the setting of national examinations.

They may demand the re-training of teachers.

They may require the provision of new or supplementary teaching and instructional materials.

They may have implications as far as political decisions are concerned.

They can determine the type of assistance needed for educational reform programmes.

It is essential that competent staff, who have had the necessary training and possess the necessary skills, are employed in evaluation exercises and in the provision of feedback. Evaluation is often entrusted to curriculum developers and supervisors employed by ministries of education. It is the task of supervisors to ensure that standards in education are maintained through frequent visits to schools. Independent consultants are sometimes requested to carry out evaluations. In most countries there are national examination boards that set all school examinations (apart from those at university level), and award certificates. They also carry out evaluations and provide valuable feedback on curricula. In practice no training is provided for supervisors, but experienced teachers are recruited to do this work.

## 6.0. THE PLANNING, COSTING AND FINANCING OF CURRICULUM REFORM

### The Main Elements for Planning a Curriculum Reform

This framework should be prepared as soon as the possibility of a curriculum reform exercise is considered. It permits the planners to be more focussed and to be able to discuss the reform with both technical and non-technical individuals. As indicated before, the curriculum reform process starts with the analytic evaluation of the existing curriculum. The main elements of curriculum reform, along with the essential planning, costing and financial requirements are listed below:

In summary the curriculum framework should:

- a) Identify goals to be achieved through specific subject areas and methods and those to be reached primarily through curriculum delivery methods. For example, productivity can be taught through creative arts and crafts, and through teaching methods which reinforce output and presentation; helping children to think critically, democratically and to acquire universal values through any subject discipline; and teaching children to be independent through project work and other teaching and learning strategies.
- b) Match curriculum objectives to national goals and objectives, eliminating those curriculum objectives that are no longer relevant.
- c) Determine by subject area, the essential competencies to be achieved by all children, the content required for enrichment, and those items to be retained from existing curricula and the proposed methods of satisfying learning needs.
- d) Outline the various teaching approaches and ensure that they are consistent with the curriculum and indicate the differences between the methods of the existing curricula and the proposed ways of improving educational achievement.
- e) Outline the curriculum assessment and evaluation strategy, identifying what would improve curriculum assessment and feedback.

The evaluation exercise should address among other things, some of the questions listed below:

#### a) Curriculum Objectives

To what extent are the objectives:

- linked to the national model for socio-economic development and progress?
- consistent with the national goals and policy direction?
- achievable within the human and financial resources allocated to education?
- flexible so that they accommodate the needs of the various social groups in society?



## **b) Curriculum Content**

To what extent does the content:

- offer knowledge consistent with the objectives?
- provide a sequence that promotes teaching and learning?
- allow for a build-up of knowledge and methods based on the child's previous experience?
- permit participatory teaching methods (learner-centred, group work, project work) within the specified period of the school year
- permit the development of manipulative skills?
- identify the specific competencies to be acquired at various levels in the primary cycle?
- incorporate the local culture to enhance learning?
- cover values and moral development?

## **c) Curriculum Method**

To what extent does the method:

- require participatory teaching and learning approaches?
- emphasize the development of the affective domain (attitudes and values), acceptance, sharing, tolerance, caring, peaceful resolution of conflicts?
- encourage self-learning, self-evaluation, and independent research?
- draw on human resources as well as others in the local community?
- allow group work and recognize group achievement?
- accommodate individual differences among pupils from various social and economic backgrounds?
- allow for mastery of competencies to be acquired in each subject discipline?
- encourage freethinking and choice with responsibility?
- create in each child a sense of achievement and belonging?
- use positive aspects of the children's culture to enhance learning?
- provide pleasure in the teaching and learning process?

## **d) Curriculum Assessment and Evaluation**

What are the strategies for curriculum assessment and evaluation?

How are the results of pupils' performance on tests used to improve curriculum objectives, content and methods at the national and school level?

To what extent does the curriculum promote gender equality?

To what extent does the curriculum contribute to a reduction in poverty in the community?

To what extent does the curriculum encourage leaning for all?

**e) Curriculum Support Materials**

To what extent:

- is the quality of teaching and learning materials suitable in terms of content and the presentation of concepts consistent with the curriculum and appropriate for specific age groups?
- do children have access to learning materials? What efforts have been made to use the environment as a source of teaching and learning aids?

**f) Identifying Critical Areas for Reform**

It is important to identify for each area of the curriculum to be reformed, what is needed in terms of personnel, materials and school management and administration. For example, a revision of the content and methods of the social studies programme may require supplementary readers instead of the re-writing of text books, in-service training for teachers, and revision of the social studies syllabus in the pre-service teacher training course, as well as new reference materials. It may also require the re-training of teacher trainers in the field of social studies. On the other hand revision of the science curriculum may not require a new science textbook.

**g) Introduction and Institutionalization of the New Curriculum**

A detailed plan should be prepared for the introduction and institutionalization of the reformed curriculum.

**h) Identify Available Resources.**

If costs exceed available resources one of two decisions can be made:

- i) Within resource limitations the most urgently needed aspects of the reform should be undertaken.
- ii) The curriculum reform process could be phased according to the resources available, starting with the most critical areas.

**i) Strategy for Curriculum Monitoring, Evaluation and Improvements**

The framework should include a strategy for supporting and making the curriculum adaptable to the needs of the various learning groups. This implies special attention to remedial learning.

**j) The Teacher**

Since the teacher is the pivot for all education provided in the classroom, attention must, therefore, be given to the teacher's:

- i) Knowledge and understanding of the national goals and their linkage to the curriculum
- ii) Willingness and experience in using the teaching methods required by the curriculum and needed by the learners
- iii) Knowledge and teaching experience in the content of the subject to be taught
- iv) Ability to adapt the content and methodology to the local situation
- v) Ability to diagnose learning problems and alleviate them
- vi) Experience and skills in developing and using classroom tests
- vii) Effectiveness in using teaching and learning materials provided to support the curriculum
- viii) Creative use of the environment as a source of teaching and learning experiences
- ix) Conditions of service which are likely to disrupt teacher performance
- x) Availability of support systems for improving pedagogical skills and techniques
- xi) Gender sensitivity in the classroom
- xii) Sensitivity to the needs of children from various social backgrounds

#### **k) Design of the Curriculum Reform Process**

The curriculum planner should be aware that curriculum reform would not address all the problems of the education programme. It is, therefore, necessary to identify the most critical areas of change and concentrate on them. On the basis of the results of the evaluation, decisions should be made on the design of the curriculum. Such decisions should take into consideration the scope of the change to be made and the elements of the curriculum which will be most affected by such change. The reform framework should cover the changes to be made, personnel and institutions to be involved, cost and financing, and scheduling.

#### **l) Stages of Curriculum Reform**

The main steps to be taken include:

- Programme formulation
- The organization of special subject panels and committee meetings
- Proposals for new syllabuses
- The organization of workshops for: the drafting of syllabuses, writing of textbooks and teachers' guides, and production of learning materials.
- Trial exercises in using the draft materials
- Review of the use of draft materials
- Production of syllabuses, textbooks, teachers' guides and instructional materials
- The organization of orientation programmes and in-service training courses for teacher trainers, school supervisors, head teachers and teachers in the use of the new materials
- The distribution of the instructional materials to schools

### **m) Curriculum Implementation**

The main activities to be undertaken are:

1. Large-scale implementation - distribution in urban and rural areas after orientation of key groups
2. Monitoring and evaluation exercises
3. Periodic in-service training for teachers, teacher educators, school supervisors, head teachers

### **o) Participation of Beneficiaries in Quality Control Exercises**

As stated earlier, consultation and participation are essential if curriculum reform is to be accepted and implemented successfully. Officials in the Ministry of Education, curriculum specialists, parents and community leaders, can be involved in curriculum quality control exercises through a variety of programmes, which include publicity campaigns, the use of the media, consultation, discussion and debates. The extent to which the general public can be successfully involved in the reform process depends largely on the care with which it has been formulated and planned. The role of the planner is, therefore, a crucial one.

### **p) Institutionalization of the Curriculum**

Careful calculation and foresight on the part of the planner are necessary to ensure that curriculum reform is understood and accepted by society as a whole. This is of particular importance as far as the beneficiaries are concerned.

Some of the measures needed to ensure institutionalization are:

- a) Needs surveys should take into account the social, economic, cultural, and geographical differences within the country.
- b) Membership of subject panels should include representatives from different groups in society and from different parts of the country.
- c) Trial exercises should be undertaken in both remote and more accessible parts of the country.
- d) The reformed curriculum should be incorporated into teacher training programmes

### **Major Cost Requirements**

A careful calculation of the cost of curriculum reform is essential to ensure that the necessary finance is made available. Major costs should first be identified and then broken down in relation to the various activities required. Most activities in curriculum reform have cost implications. The main ones are listed below:

## **Preparatory Activities**

Curriculum evaluation  
Needs assessment survey  
Consensus and advocacy

## **Curriculum Design and Development**

Programme formulation  
Syllabus design  
Subject panels  
Academic board  
Consultation meetings  
Materials writing workshops  
Test exercises in use of materials, printing and distribution  
Monitoring and evaluation programmes  
Revision of materials used  
Publicity and media programmes for curriculum reform

## **Personnel Orientation and Training**

Curriculum developers  
School supervisors  
Teacher trainers  
Teachers, head teachers  
Education officers  
Community personnel  
Printing and delivery of the curriculum (attention paid to the most remote areas)  
Costs for all activities will have to be taken into account.

## **The Control and Phasing of Cost**

It is evident from the above that the cost of curriculum reform is considerable. When it is financed by means of outside assistance, or repayable loans, both of which are short-term in nature, then the question of sustainability will arise. It is, therefore, desirable that the resources used should, as far as possible, be provided from internal sources. Costs can be met by:

Phasing the reform process, starting with the primary level and subsequently progressing to the secondary and tertiary ones. Another possibility is to deal with specific subject areas first and move on to others later, and by:

- Making contingency plans
- Producing financial statements of available resources
- Using a phased approach based on resources actually available
- Making a rational allocation of available resources

- Cost-sharing among communities and the government

### **Training Needs**

Training is required for nearly all the activities associated with curriculum reform. The most important ones are in the fields of:

- Institutional management skills for the establishment of a Curriculum Development and Research Centre, if one does not exist
- Curriculum development skills and understanding of methods of teaching
- Research, evaluation and monitoring skills
- Educational management skills, including those in planning, organization, supervision, co-ordination, evaluation, reporting and budgeting
- Specialists for orientation and subject teaching training courses, and for those acquainted with human development programmes, intervention techniques, and the production of instructional materials.

### **Conclusion**

This manual is by no means prescriptive. It recognizes the existence of a variety of approaches to curriculum reform and development. The ideas suggested in the manual have been drawn from real experiences with curriculum reform in developing countries. It is hoped that it will be an inspiration for all those who embark on a curriculum reform exercise with the objective of improving the quality and efficiency of education.

The frequent transfer of qualified or experienced staff has challenged building curriculum development capabilities. The strength of this capability is particularly important at a time when education is seen as an instrument for change and social transformation. In promoting learning, there is, indeed, the need for African education to incorporate the richness of its cultures - its music, dance, stories, festivals, and proverbs. Its rhythms have much to offer in enhancing the teaching and learning process.

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