

TEACHER EDUCATION IN AFRICA PAST, PRESENT, AND FUTURE

Selected papers from the proceedings of a regional seminar on Teacher Education, 12-16 September 1994 , Lomé (Togo)

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Teacher Education in Africa: Past, Present and Future

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Introduction

This book brings together 15 selected papers from the regional seminar on 'Teacher Education in Africa' organised by UNESCO/BREDA in Lomé Togo, September 12-16 1994. The objective of the seminar was to examine teacher education in Africa in its vertical and horizontal dimensions. More particularly, the seminar attempted to relate current practices in continuing education of teachers in Africa to the demands and challenges of Education for All by the Year 2000.

The work of the seminar was undertaken in four sessions dealing successively with a general overview of teacher education during the past thirty years, a special focus on in-service teacher education, another special focus on training of specialised teachers, and finally a reflection on the needs of the future. These sub-themes form the four sections of the present publication.

Section A (chapters 1-5) gives a general overview of developments in teacher education in the region. The regional overview is given in Chapter 1 by Taal who discusses problems related to quality, quantity, and relevance in teacher education and gives a brief description of the teacher management support system, which he feels should become an 'in-thing' in teacher education programmes.

The other four chapters of the section are case studies from Ethiopia, Nigeria, Tanzania, and Senegal. These papers examine teacher education as 'part of a reform package, for, as Meyasha rightly says 'teacher education does not operate alone'. The papers show that each of the countries studied has been involved in a search for relevance in education in general and in teacher education in particular. This continuous search for relevance was in fact the 'raison d'être' for the Lomé Seminar.

Section B (chapters 6-8) examines country and institutional experiences on teacher continuing education. The chapters are written by persons who have been actors in this process from Ghana, Senegal, and Togo. Again, the search for continuous improvement is a widely held concern. For Ghana, Addabor (Chapter 6) calls for improved co-ordination, and for Senegal and other national experiences related by Kone (Chapter 7) there is a call for more holistic approaches to the development of teacher continuing education programmes.

The paper from Togo (Chapter 8) is an inside story of an institution specifically set up for in-service teacher education. Again, the undertaking was part and parcel of a wide-ranging national educational reform programme. This inside story approach complements the impact evaluation approach of Nacuzon Sall (Chapter 4), which concentrates on an institution involved in both pre- and in-service teacher education.

In Section C (Chapters 9-12) a wide variety of special areas of teacher education is discussed. Coulibaly (Chapter 9) discusses specialised training for arts, sports, foreign languages teachers, as well as teachers of learners with special needs in Mali. His emphasis is on the lessons from these experiences for the future. An important lesson here, emphasised by the author is that: 'Society must ... create the best conditions for teachers to blossom professionally and socially'. This is a message which UNESCO and ILO have been drumming across Member States since 1966 (UNESCO/ILO *Declaration Concerning the Status of Teachers*).

Chapters 10 and 11 discuss Kenya's experience in developing specialised training for teachers of science and technical subjects. Lessons from the experiences are worth examining by other countries, especially as these institutions have tended to grow with changing times and changing needs. A major problem of such programmes is the profile of the teacher trainers. Kinyna in Chapter 10 draws graphic attention to this when he says: 'Kenya, like other developing countries, will need to address itself seriously to the problem of specialised manpower to sustain the specialised component of teacher training programmes'.

In Chapter 12 Gangbo discusses the issue of teachers in higher education. She illustrates, with particular reference to her own work in the Faculty of Health Sciences in Cotonou, methodologies for the assessment of training needs and the development of appropriate programmes.

Pedagogic training for teachers in higher education has been a crying need in recent years and UNESCO has paid considerable attention to other African institutions. The methodologies are also applicable to other areas of in-service teacher education, like the ones discussed in Section B of this volume.

Education for All by the Year 2000 has been the world's major concern since the Jomtien World Conference on the same theme in 1990. What would be the implications of such a worthwhile goal for teacher education? What type of teachers would be needed to cope with increasing numbers and meeting the challenges of an 'enlarged view' of basic education? These are the questions addressed in Chapters 13 and 14, with illustrations from Zimbabwe and Nigeria. It is interesting that the question of the teacher crops up again here. Ndawi (Chapter 14) states it clearly emphasising the need for 'reviving the sinking status of the teachers'.

The book closes with an overview of the challenges of the 21st century, the education dimensions of these challenges, the role of teachers and their organisations in meeting these challenges. All the issues raised Chapter 15 are controversial enough to spark off further debates on the entire subject of this book. That infact is the rationale for the entire publication. The various authors, who have also been actors in the process of developing teacher education programme in Africa, have not simply related experiences, they have also raised issues needing more in-depth discussions. We do hope that this book as a whole would be a useful instrument in animating such discussions.

June 1995

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Section A
General Overview and Country Experiences

1

Teacher Education and Training in sub-Saharan Africa

*A.H.S. Taal**

The teacher is increasingly becoming the focus of interest because of the key role he/she plays in the delivery of quality education to the learner. The poor or ill preparation of teachers in the past however has some undesirable effects in the delivery system. All available evidence indicates that among many teachers in sub-Saharan Africa, the critical determinants of effective teaching, namely, knowledge of the subject matter ; pedagogical skills and motivation are acutely lacking, although teachers are in the front-line of educational reform programmes. They are considered by school officials to be the key to delivering effective education, by parents and students to be the source of individual success.

These expectations are made more difficult by the challenges that the rapid expansion of the education system poses. Teachers are expected to face economic, academic, pedagogical, structural, social and political matters in spite of little guidance. Once teachers are trained and are put in a class, they often work without supervision from their superiors or help from peers and with little motivation or opportunity to change the teaching environment.

One reason for their situation is the inability of the teacher training system to respond to the difficult task of training teachers to handle an increasingly complex process of education in the context of limited

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and competing resources. This being so, the efficiency of the teachers in the professional situation are crucial to the success of education. The teacher has to keep up with the knowledge explosion and as the curriculum gets more and more crowded with new themes such as environmental education family life and population education, health education and education for peace human rights and democracy, in old subject declined compartments.

Improvements in new teaching techniques must be developed and acquired rapidly. Teacher education and training therefore needs to be a continuous process in which teachers must refresh themselves continuously. On-going professional development is associated with job-satisfaction and lack of it is also associated with high teachers attrition rates and low retention in the services.

Against this background, it is evident that to enhance student's learning, new teachers need to be better prepared and motivated.

In the following the author discusses the critical issues affecting effective teaching namely ; improving teacher education approaches, current concerns over pre-service and in-service training.

Teacher Preparation, Recruitment And Training

The critical determinants of effective teaching are knowledge of the subject matter, pedagogical skills, and motivation to teach. A key factor in teaching effectiveness is the general academic preparation of the teacher, which can take place either before or during teacher training. In most developing countries, in particular sub-Saharan African countries prospective teachers have only nine (9) years of general education and represent the least able of their class mates (the drop-ins). This situation is largely due to rapid expansion of population rates and rapid expansion of the primary education system which has led to a reduction in the amount of general education needed for entry into teacher training programmes.

Such inadequate Pre-entry preparations result in trainees who lack the intellectual and academic background to acquire adequate pedagogical skills. In Nigeria, in 1981, only five (5) years of primary education were required for entry into teacher training programmes.

Teacher training programmes have therefore had to devote valuable time to academic remediation. Students in teacher training colleges spend as much as 80 percent of their time on general secondary

subjects. Providing general secondary education in teacher training colleges is quite expensive averaging about seven times the annual per-student costs in conventional secondary school in many African countries.

In this regard, significant savings can be made by requiring prospective teachers to obtain their secondary education in the school system instead of in the teacher training programmes.

It is accepted that advances in education depend largely on the qualification and ability of the teaching staff on the human, pedagogical and technical qualities of individual teachers, and that teaching requires expert knowledge and specialised skills acquired and maintained through rigorous and continuous study.

The purpose of teacher preparation therefore should be to develop in each student-teacher, his/her general education and personal culture, his/her ability to teach and educate others; an awareness of the principals that govern orderly human relations within and across national boundaries and a sense of responsibility to contribute both by teaching and by example to social, cultural and economic progress. Courses and other appropriate facilities should be so designed to enable teachers to improve their qualifications, to alter or enlarge the scope of their work and to keep up-to-date with their subject and the field of education as regards both content and method. For if the teacher is to be professionalised and his/her status reinstated in the eyes of society, the first step must be to educate him/her to be able to work independently and reflectively, possessing the insight and skills of a professional and practice like his/her counterparts in other professions.

Current Concerns In Pre-service Teacher Training

In terms of professional development, the teacher acquires his/her tools of trade through initial teacher training courses offered by teacher training colleges or faculties of education in national universities. One aspect of Pre-service teacher training which seems to elude training institutions in Africa is the ability and willingness of teacher educators to go beyond traditional curricula to encompass new notions that would up-lift the teaching profession to levels and standards of equivalent professions. In many countries in sub-Saharan Africa, the quality of pre-service teacher training is suspect. Graduates of

these programmes, because of low academic background tend to be of low quality. This problem is associated with low entry requirements and an increasing demand for teacher supply. In many of these countries, efforts to train more teachers have been frustrated by limited and inadequate human, financial and material resources. While the number of candidates for teacher training has risen tremendously, this has not been marked by a rise in the quality of the output of pre-service training. In effect, to solve this problem, entry requirements to teacher training programmes may need to be reviewed and tightened on academic and personal qualifications.

Much of pre-service teacher training in sub-Saharan Africa is devoted to remedial training of student-teachers who have had no general secondary education prior to entry into the training programmes. Because teacher training programmes devote so much time to general secondary education, little attention is paid to pedagogy. Moreover the pedagogical courses often concentrate on broad theoretical issues at epistemological, psychological and sociological studies, rather than on specific instructional strategies.

Pre-service teacher training programmes in many countries need to be revisited to effect reforms that would put emphasis more on pedagogical instructional skills than on general education ; on skills such as questioning strategies, lesson pacing, time management, and practical teaching techniques.

In-service Teacher Training: Current Concerns

In the 1980s and early 1990s, in-service teacher training programmes have become very popular and for very good reasons the high proportion of unqualified or untrained teachers teaching has necessitated the designing of in-service training programmes to up-grade these teachers' qualifications.

Second, the knowledge explosion and technological changes especially in the field of information processing has made retraining and skills development another necessity. Third, the role of the Head teacher as a manager has also alerted authorities need to training school heads in the area of effective school management.

Finally, the large number of teachers in education systems and the need to ensure their effective utilisation has led to the training of personnel in the field of teacher management and support.

In summary, in-service training usually aims at up-grading the following targets :

- untrained or unqualified teachers ;
- skills of already qualified teachers ;
- Head teachers in school management ;
- educational personnel on teacher management and support systems.

In-service teacher training programmes are intervention strategies in low-income countries, particularly those in sub-Saharan Africa. Because pre-service training involves financial obligations that many cannot afford, the only option that may be open to them would be to recruit less educated but affordable teachers and invest more on up-grading through in-service.

Apart from the fact that pre-service training is expensive, there is also the view that, the traditional attempts to improve teachers through conventional training that is Pre-service training have had some marked failures, in assuring teacher effectiveness and efficiency.

Effectiveness is a synonym for efficacy. A teacher who accomplishes the goals of a school system might be said to be effective or efficacious. Efficiency on the other hand is a measure of how much is done as a ratio of a unit of time for a unit of energy expended.

An efficient teacher might cover many mathematics questions in the academic learning time available, but his/her effectiveness might be low if the students do not understand the lesson. Much of the intervention strategy for in-service training are based on the assumption that if we know how different types of teachers perform and if we can point out what is alterable in their performance and what is not, we will be able through in-service training schemes to influence their classroom behaviour.

In-service programmes are mainly designed to improve teacher effectiveness in the classroom. They therefore tend to put emphasis on pedagogical practices and on topics such as practical methods of teaching major subjects, ways to adapt the curricula to social and the physical environment of the student ; understanding how children develop and learn, management of the classroom, parent/ teacher and community relations. Some in-service training programmes for teachers involve up-grading their knowledge and on behavioural aspects such as how to observe, to demonstrate, self-reliance, and initiative, and to show ability to work as a team.

To achieve these objectives, some training activities have borrowed unified procedures that combines observation of facts, group-work and in-depth studies in the field of education content. Action-learning, role-playing, projects, problem-solving, experimental learning methods, and practical and theoretical mix techniques are known elements in adult education, and are applicable to in-service training approaches.

Types of In-service Training

In-service training programmes for teachers in sub-Saharan African countries tend to offer the following course :

- English Language: viz, Phonetics, Reading and Grammar;
- Social Studies : Geography, History, and Civics ;
- Mathematics and Science : Numeracy and General Science ;
- Technical Studies : Arts and Craft ;
- Professional Studies and Teaching Practice.

Other in-service teacher training programmes use school-based cluster training. This involves the training of teachers from two or more nearby schools. The main objectives of school-based cluster training programmes amongst others are namely, to :

- Build-up the motivation of the teachers ;
- Involve them in group activities;
- Strengthen their knowledge base;
- Improve their micro - skills of teaching through practice;
- Provide feed-back on their performance.

The idea behind cluster training is to get away from the usual formalized lecture method of teaching and in its place involve the teachers in activity-oriented group tasks and groups discussions on specific aspects of instruction, topics for cluster group in-service training should be carefully selected keeping the practical needs and inexperience of the teacher in mind. Examples of topics may include the following;

- How do I mark essay-type questions ?
- How should I organise an annual sports day ?
- How should I do when a student does not come to school ?
- How can I organise a visit to the local brick-work as part of Social Studies ?
- How can I manage without a blackboard?
- How can I teach handwriting?

Results of field try-outs conducted in Bangladesh by UNESCO of the cluster training programme has shown that by participating in:

- active learning methods, the teacher's attitude is more favourable towards teaching through the activity method ;
- group activities, the teachers improve their power of expression and logical thinking ;
- school-based programmes, the cost of organising residential courses, travel allowances, per diem, etc. is avoided and/or reduced ;
- the programmes twice a month, teachers become more aware of their professional problems and collectively discussed the resolving of problems; and
- as the teachers are locally based, they have a greater awareness and appreciation of local need, problems and available resources.

In-service teacher training programmes can also be carried out through distance education by radio and correspondence. It is particularly useful for improving teachers subject matter knowledge. It has also proven to be cost effective.

One study in Tanzania found that distance education was not only more effective than the equivalent conventional residential programme, but it was four times cheaper per graduate.

Distance teachers training can be effectively conducted through Interactive Radio Instructions (IRI), where teachers lack sufficient subject matter knowledge to correctly instruct students in a particular area by using correct order and pacing of instructions. It is also one of the most cost effective methods. Once the lessons have been developed, the cost per student per year is very low because the same lessons can be transmitted to thousand of new students at minimal cost.

Programme materials for distance teacher training should provide teachers with step-by-step scripts and instructional materials for children to use individually in groups.

In-service teacher training programmes are intended to improve the effectiveness of the teacher towards quality in learning.

Training in Education Planning and Administration Training of School Heads

During the 1980s UNESCO initiated a programme for the training of school headmasters in several sub-Saharan African countries, under the UNESCO/SIDA Funds in Trust Project for the training of school headmasters. This project also had a component on training in educational management and administration. The specific objectives of the project were namely to:

- enable participants to appreciate their basic role as leaders of their establishments ;
- identify and list the important elements in the management process;
- know the stages in the planning process and appreciate how they relate to the operations of a well-managed school ;
- know the crucial elements in communication and be able to state their influence on a well-run school ;
- know the crucial elements in communication and be able to state their influence on a well-run school ;
- state how a school is supervised and indicate some of the crucial actors in the supervision process ;
- list the records necessary to keep ;
- know about the financial set for guide lines schools to observe.

The training programme was conducted through a series of regional and national workshops. The content of these workshops were general discussions on the following issues:

- . role leadership,
- . development of case study profiles based on planning, organising, monitoring and reporting,
- . reinforcement of skills and knowledge on records keeping, storage, retrieval and book-keeping in school management awareness creation and appreciation of communications and public relations for school management.

The sessions were mainly conducted through plenary group discussions, working groups and lectures. Participants to these workshops identified some key problem that the Head teacher is required to solve, namely to:

- plan efficiently ;
- keep proper records ;
- maintain staff discipline ;
- write reports.

The participants to the workshop were expected to become more aware of their roles in the implementation of education reform policies, such as the planning, organising, directing and controlling of activities that concerns staff and pupils in their care.

For the past six years, the Commonwealth Secretariat Education Programme (EDP) has attempted to mobilise national and international resources for improving teacher management in African education systems. With the primary objective of improving the morale and

commitment of teachers in Africa and thereby their performance. During the past three years attention has again inevitably been turned to the question of management of schools, the way in which teachers are motivated to do their best, the extent to which they are treated like professionals and supported in carrying out their duties within the school environment.

Following the World Conference on Education for all in Jomtien Thailand, 1990, education ministries and agencies the world over agreed on action plans to improve the performance of schools. The plans generally point to the fact that the Head teacher is in the front-line in the battle to improve the quality of basic education.

School Heads must carry the burden of implementing curriculum reform, maintaining and developing school premises, allocating equipment and materials. School heads, in Africa at least, often work under the most difficult conditions and in many countries have few resources or back-up support. Only rarely do they train for the task they undertake. It is however accepted that strong leadership from heads is essential for teacher performance and morale especially where the school support systems from inspectors and others are unreliable.

The trained school head who is effective as a manager, should be able to perform the following functions well :

- manage and deploy school resources efficiently.
- allocate school accommodation appropriately and ensure satisfactory standards of maintenance and cleanliness of school premises.
- guide curriculum implementation and change and organise self development programmes.
- create a professional methods within the school by involving promoted staff in decision-making.
- keeping laboratory and workshop equipment and facilities secure.
- maintaining equipment.
- mobilising community resources on behalf of the school.

In many parts of Africa today, head teacher school management training is being given priority. In most cases however, training is mainly in-service and on ad-hoc basis by ministry units, or within a course structure by teachers training colleges, institutes, faculties of education, Head teacher associations, and teachers' unions or associations.

In a recent study conducted by Daddy and Clever Herber Training and Professional support for Headship in Africa, the following picture of the working life of an African Head teacher is starkly pointed :

- schools without transport, electricity, telephone, paper, and basic office equipment and staff.
- poorly qualified and untrained staff.
- general low level of professional discipline morale and motivation.
- heavy pressure from the community with regard to admission, examination results, school fees, the use of school facilities and accountability.

Considering the ever expanding role of school heads in Africa and the expectations of governments, communities teachers and pupils it has become all the more necessary to put priority on Head teacher training programmes for better schools. This should take the form of Pre-service, Pre-employment, induction and in-service.

Yet Head teacher training needs are hardly addressed progressively throughout their career. The result of the training coverage is generally very low. Workshops upgrading most often are on a one-off, ad-hoc basis which is insufficient in terms of time, money and energy expended. Whilst there is a multiplicity of training initiatives, the main problem is that this training is not co-ordinated nor is it clearly linked to the career-path of teachers and heads. Not surprisingly, concern has been expressed on funds invested on in-service, particularly on workshops, when there is no apparent improvement in the way schools operate.

Providing training opportunities in Africa is however inhibited by a number of factors, namely :

- scarcity of funds,
 - lack of liaison with ministries for the development of training programmes,
 - selection, appointment and promotion of school heads is seldom systematic and rational,
 - responsibility for training and supporting school heads often rest with disparate agents including institutions and faculties of education training colleges, administrative staff college, local education authorities, teaching service commissions, school management boards, education resource centres, Head teachers Associations, ministry, officials, teachers unions, but with little liaison or consistency of approach among such bodies.
 - lack of a national training policy.
-

Towards the Development of Training Policies

The prospects of a further broadening of access and participation and continuing rapid changes in other economic, social and cultural environment; the concern in many countries over the quality of schooling and in particular learning outcomes is likely to grow. For several reasons teachers and teaching are likely to emerge at the forefront of education policy debates in the 1990s especially now that the World Bank and other donor agencies are putting priority on teacher education and training.

Arguments which stress human resources development in other sectors of the economy and society apply with equal force to education. The quality of education generally and learning outcomes in particular cannot be improved without the co-operation and assistance of good teachers. The issue is not just teacher quality in some formal sense of training or diploma. It is also of motivation and commitment. Without the latter there can be little interest even in monitoring pupils learning let alone in helping to improve it.

Teaching is a larger profession than is commonly thought. There were some 44 million teachers employed in the formal sector of education representing nearly 1 percent of the world total population. The projected teacher requirement for sub-Saharan Africa to the year 2000 for first level education is 1.3 million teachers and for second level education 0.9 million, over the period 1988-2000. This growth will largely be determined by growth in pupil enrolments which is expected to increase from 55 million in 1988 to 104 million in the year 2000 for first level education in the same period.

The increase in projected enrolments in first and second level education would prove a formidable challenge to recruitment and training of teachers in many countries in sub-Saharan Africa, well into the twenty-first century.

One of the major constraints in teacher education and training is the lack of national training policies. The ANC's (South Africa) white paper on a Policy Framework for Education and Training provide the following principles :

- development of a national system in which the management and professional support of teachers is concerned as a coherent and integrated process,
 - the support and professional support of teachers shall be central aim of the management system.
-

- teacher appraisal, supervision and inspection shall be linked to the professional development of teachers.

Translating training policies into effective action however is a more complex activity. The major aims of a teacher education and training plan is to improve teacher effectiveness in the education service, either nationally, locally or at school. The major objectives of such plans usually relate to improving the quality of teaching in schools. This will involve reviewing areas where improvements in the present service can be made.

To translate a teacher education and training plans into reality an action plan is essential. This permits the efficient targeting and allocation of resources both at the Ministries of Education level and at school level. An effective action plan must establish a direct link between the following :

- Aims.
- Policies.
- Priorities.
- Targets.

A training plan should contain strategies that includes the following.

1. Setting the aims and objectives of the training plan.
2. Establishing priorities for training development over defined period.
3. Setting targets for each element of the training programme.
4. Outline the expected outcome.
5. Establish criteria to assess success.
6. Use external evaluators.

The details of the steps to achieve a successful implementation of training objectives requires the designing of a plan which indicates more specifically:

1. Target which the plan is designed to achieve,
2. Time-scale for the completion of the training plan,
3. Those who will be involved in the training programme and the extent of their involvement,
4. The strategic approach to be adopted,
5. The resources required for development, viz, financial, human and materials,
6. External assistance required,
7. Monitoring and evaluation procedures,
8. Criteria of success.

The type, content and length of teacher training courses be such as to ensure the best available preparation for teaching as a career.

There should be an appropriate mix of theory and practice and that relevant links between the two be established in Pre-service training.

Entry and induction into teaching should provide a sound start to working within the particular school and system a sound basis for the teachers subsequent career.

There should be appropriate and effective opportunities for the continued professional development of teachers throughout their career to meet their professional needs and the need of the system in which they are employed.

Career opportunities and working conditions should be such that the great majority of (proven) and experienced teachers enjoy job satisfaction, maintain good moral and remain in teaching.

Teachers are the most important resources in education programmes. To ensure the best possible quality in the teacher workforce, the policies implemented by government ministries **MUST** take into account the interplay of all these critical variables that influence teacher effectiveness.

These variables include Pre-employment training, in-service training, recruitment, remuneration and personal development.

Conclusions

The following key issues still continue to be major problems to those concerned with education : low morale and motivation among teachers and teacher educators, the large proportion of poorly qualified and unqualified teachers in the profession; lack of materials to update teacher educators and teachers knowledge, lack of continuous in-service training programmes, lack of co-operation amongst teacher educators and limited financial resources.

These problems are common in all countries of sub-Saharan Africa. In order to overcome them, it would be necessary to promote co-operation amongst teacher educators in Africa in order to tap the resources available in the region.

There is also need to improve the resources of financing teacher education. This could be done by allocating adequate funds to teacher education in national government education budgets. This should be done through a proper evaluation of the national needs for teacher education at all levels of the education system and allocate the resources accordingly. Adequate financing of teacher education should

yield results that would impact upon teacher motivation, ameliorate teacher morale, efficiency and effectiveness.

2

An Overview of Teacher Education in Ethiopia

*Mano MENGASHA**

Ethiopia is a country of great geographical diversity. The country covers a total area of about 1.22 million square kilometres, including Eritrea, which became an independent country in 1992. The rugged and high mountains, flat topped plateau, deep gorges and river valleys, the Great Rift Valley system of East Africa which stretches along the Red Sea southward, and its proximity to the equator characterise the geographical features of Ethiopia, resulting in varied climates, soil and vegetation. The 1994 population is estimated to be 53 million. Preparations are now under way for the second country wide census to be carried out in October 1994. The most striking demographic feature reflected in the estimates has been rate of population growth which is estimated as 3 percent per year. If this trend continues, the size of the population is expected to double by the year 2010, according to the latest projections. However, more precise information will be available after the October census. Young people, aged 0-14, account for about 48 percent and older people aged 65 account for about 4 percent of the total population, creating a high ratio of dependency upon the rest of the productive population (47 percent). When unemployment and physical disability are taken into account, the burden placed on the economically active population becomes even heavier. The economy of the country is based mainly on agriculture, characterised by peasant farming and traditional methods of production. As

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a result the principal export items are agricultural products like coffee, oil seeds, pulses cotton, sugar cane, fruits and vegetables.

All these realities - a big land mass with undeveloped infrastructure facilities across the rugged mountains, highly populated and poorly cultivated agricultural areas, low economic development based on peasant farming and traditional methods of production have obviously affected the educational system of the country.

The Educational Policy and Reform Context

Education does not operate alone, rather it is part of the total Socio-economic and political system. The education system of Ethiopia in the last two decades had been affected by Government coercive policies, civil war and economic crises. Consequently the educational system has been in crisis since the 1980s.

After the overthrow of the preceding government in 1974 up to the beginning of 1980s educational expansion had been relatively high at the expense of quality. However, the trends could not keep on that enrolments have been decreasing at all levels, about 22 per cent in 1991-92 in primary from 35 per cent in 1985, schools were distracted, resulting in the country's primary school participation one of the lowest in the continent.

Successive literacy campaigns have also made significant gains in increasing national literacy rate but this also subsequently declined due to the effects of turmoil and lack of follow-up materials to enable adults to retain literacy.

The education sector has suffered not only from poor quality and decreasing enrolments rates but also from low opportunities for females, urban bias (Annex 3), insufficient resources, poor educational infrastructure, and lack of relevance of curriculum.

Ethiopia has now started a new era of peace and hope after two decades of civil war and natural disasters. Every effort is being made to rehabilitate education by introducing new and total reforms to overcome deep-rooted educational problems and to serve future development strategies. In response to these problems and as a foundation for educational reforms the Transitional Government of Ethiopia (TGE) has formulated new educational and training policy, with specific objectives aimed at increased access, relevant and quality education, and more equitable distribution of opportunities.

The specific objectives of the New Education and Training Policy are:

- i To promote relevant and appropriate education and training through formal and non-formal programs.
- ii To develop and enrich student's inquisitive ability and raise their creativity and interest in aesthetic.
- iii To enable both the handicapped and the gifted learn in accordance with their potential and needs.
- iv To provide basic education and integrated knowledge at various levels of vocational training.
- v To satisfy the country's need for skilled manpower by providing training in various skills and at different levels.
- vi To make education, training and research be appropriately integrated with development by focusing on research.
- vii To provide secular education.
- viii To make education a supportive tool for developing traditional technology, and for utilising modern technology.
- ix To provide education that promotes democratic culture, tolerance and peaceful resolutions of differences and that raises the sense of discharging social responsibility.
- x To provide education that can produce citizens who stand for democratic unity, liberty, equality, dignity and justice, and who are endowed with moral values.
- xi To provide education that promote the culture of respect for work, positive work habits and high regard for workmanship.
- xii To recognise the rights of nations/nationalities to learn in their language, while at the same time providing one language for national and another one for international communication.
- xiii To gear education towards reorienting society's attitude and value pertaining to the role and contribution of woman in development.
- xiv To provide education that can produce citizens who possess national and international outlook on the environment, protect natural resources and historical heritage of the country. To provide education that can produce citizens who have developed attitudes and skills to use and tend private and public properties appropriately. (TGA - Education & Training Policy 1994)

To achieve these objectives the development of implementation strategies were to be tried in 1994/95 as of September in grades 1 and 5 of the primary level. The strategic issues to be addressed include focuses on:

- i Structure and size of each level, which is intended to be wide at the base and free up to grade 10, although cost recovery will be introduced at higher levels;
 - ii The involvement of the private sector and the encouragement of community participation in the education sector to promote expansion and achieve a balance between social demand and the supply of education ;
 - iii Priority for increased enrolment of girls at all levels;
-

- iv Improvement of internal efficiency in terms of reductions in drop-out and repetition rates, and achieving full utilisation of the existing capacity;
- v Placing emphasis on vocational and technical training, geared to self employment, right from the grass-root level for artisans and up to technician level for youth and adults;
- vi Improving the relevance of curricula, encouraging a problem solving approach to learning and providing practical experience which will start from clear definition of objectives for each level of the formal and non-formal system;
- vii Improvement of the examination system and selection process, in terms of both what is tested and how it is tested, so that they will as a means of improving the learning and identifying skills that contribute to development; the standard or quality of education, which is considered to be in crisis in terms of facilities and instructional materials decline of teacher quality (again related to low remuneration and absence of career prospects and low status of teachers), and low societal value for education; here special emphasis to be given to mathematics, science, and English as a subject in primary and as the medium of instruction at the secondary level and above.

As the implementation of the New Education and Training Policy gains momentum, the limitations of the old system can obviously lay constraints. The constraints can be many and diverse, therefore the focus will be limited to teacher education.

- i The objective and content of teacher's Education and training of all levels do not correspond to the relevant level of curriculum the teachers are trained for. In this respect the teachers were poorly trained and are not professionally ready to implement the new curriculum to be developed.
- ii During the Socialist regime of the Derg, there were relatively higher enrolments which called for more teachers while the teacher training colleges and institutes were not operational. The measures taken were to recruit untrained students of different levels for teaching particularly to the primary level. These measures, although relieved the pressure, soon resulted in poor quality. Therefore the teacher training institutes had to be set in motion to operate over-capacity throughout the years to provide pre-service training for new entrants and remedial in-service program for the untrained teachers during the vacations (Annex 4). This in-turn resulted in dilapidated and antiquated teacher training institutes.
- iii The situation in higher levels are not any better in that university graduates with degrees and diplomas levels used to be directly assigned as teachers of secondary education regardless of their field of study. Even then about 60% of the high school teachers are academically and professionally below standard. Most of the teachers in junior secondary schools are those from the primary level.
- iv The different programs (special education, non-formal sector, vocational training, kindergartens) need teachers with pertinent training, but for almost all of these, there are no adequate and well organised institutions.
- v Teacher's motivation is one of the constraints of quality education reflected on school outputs, high repetition rate and drop-outs particularly at the primary level. Be-

cause of lack of career development for the teaching force, it is not only the existing teachers who are unmotivated but also unable to attract good students to the field.

- vi The number of female teachers is low (Annex 2) that it cannot exceed 30 % in recruiting new entrants to primary teacher training institutes even with the allotment of 20 per cent quota for girls alone. The situation is worse at the higher levels. The number of female head teachers in primary level is about 1 % and almost non-existent in secondary levels. The number of female teacher trainers in 12 Teacher Training Institutes (TTIs) is 22 (6.6 per cent).
- vii Teachers (instructors) of higher institutions colleges and universities usually have no initial training, and most of them follow their own approach as if teaching has not got its theories and principles to be applied.
- viii Teachers and head teachers once trained and assigned, they are left by their own and lack opportunities of updating and professional support. The teachers training institutes are poorly integrated that they had little or not direct relations with regional offices, schools and communities they are serving for feedback. Primary teacher training programs, in response to the primary school language of instruction, have to be conducted in different languages in a country with many different nation/nationalities. This has pedagogical reasons, and it is also the right of nationalities to determine what is appropriate to them. The implication is that such issues have to be handled carefully to successfully implement the policy.

Policy Framework and Strategy for Teacher Education

The new Education and Training Policy has primary focus on teacher's affairs, which is very much interrelated with quality instruction, consequently quality school outputs of all levels.

The policy statements of the TGA concerning teachers state :

- i As certain that teacher trainees, have the ability, diligence, professional interest, and physical and mental fitness appropriate for the profession.
 - ii Create a mechanism by which employers, training institutions and the Teachers' Association participate in the recruitment of trainees.
 - iii Teachers education and training components will emphasise basic knowledge, professional code of ethics, methodology and practical training.
 - iv Teachers will be certified before assigned to teach at any level of education.
 - v Teachers, starting from kindergarten to higher education, will be required to have the necessary teaching qualification and competency in the media of instruction, through pre-service and in-service training.
 - vi The criteria for the professional development of teachers will be continuous education and training, professional ethics and teaching performance.
 - vii A professional career structure will be developed in respect to professional development of teachers.
 - viii Teachers training institutions, including higher education, will function, autonomously with the necessary authority, responsibility and accountability.
-

- ix Teacher training institutions of all levels will be required to gear their programs towards the appropriate educational level for which they train teachers.
- x Special attention will be given to the participation of women in the recruitment, training and assignment of teachers.
- xi Teacher training for special education will be provided in regular teachers training programs.
- xii Various steps will be taken to promote incentives to motivate teachers specially to those assigned in hardship areas.

To overcome the challenges and implement the policy in line with the favourable political environment of decentralisation the assessment of capacities and potentials is vital. Some of the capacities, potentials, and trends to be followed and available are :

- i Regional self-governments and education bureaux are established with their authorities and responsibilities defined, and legally proclaimed, accordingly most issues related to education are going to be handled by the regions. In this regard teacher training of primary level will be the responsibilities of the regions; and the central ministry provides technical assistance, ensure standards, and act on national policy issues. The implication is that capacities, management and organisation of training institutes and their relations with their immediate beneficiaries will be enhanced.
- ii There are 13 primary teacher training institutes with 378 academic staff in the regions and these institutes will be utilised for both in-service and pre-service training programs and as well for orientations about the new curriculum. Thus, the existing Teacher Training Institutes, with necessary renovation, will be able to train about 6700 trainees at a time with boarding facilities.
- iii In higher institutions also we have got capacities of training about 1254 in pre-service and about 1665 in the in-service programs for diploma level teachers. At degree level, the capacity is an average of 177 graduates a year in the in-service program, and about 380 annually from the pre-service program. (1988-1993). The local post graduate level teacher training program has an intake of 417 participants in the last 14 years of establishment out of which 164 (about 40 %) have completed their studies.
- iv Using the existing capacity and potential teachers of all levels will be trained in in-service and pre-service programs for all levels of the structure. The structures of education can be summarised as:
 - Kindergarten for children of age 4-6 .Primary from grade 1-8 with basic education from grades 1-4 and general education from 5-8
 - Secondary education from grade 9-12 with first cycle of grades 9-10. and second cycle of grades 11-12 including vocational training of all levels.
 - Beyond grade 12. higher education consists of diploma, first degree, and post graduate programs of specialisation's up to Ph. D level.
 - Accordingly, teachers of kinder garden and primary level (1st cycle) will be recruited from grade 10 level and be trained for two years (10+2). and 12+2 college diploma level for the second cycle. the minimum requirements of

teacher's qualification for secondary education will be 1st degree in teaching or education.

- v Curriculum of teacher education will be improved to correspond to the levels these teachers are trained for with adequate teaching practice. @OUTDENT = iv Raising of the proportion of female teachers at all levels with the aim of improving female enrolment rate.
- vi Development of career structure operational plans for teachers is underway, discussions and analysis on the proposals prepared by professionals have already started at higher levels of the government. The proposed grades for promotion of teachers are six, specifically: the beginning teacher, the junior teacher, senior teacher, associate leading teacher, and leading teacher.

The ultimate goals of the career structure are to attract competent entrants to teacher training programs, to motivate the teaching force, and to retain qualified and experienced teachers consequently to achieve quality education.

In order to achieve these goals, distinct job descriptions are prepared for teachers of different levels so that in-built supervision system is established in the schools, teaching materials and text books updated and adapted by teachers themselves, short term training programs organised in schools, research and evaluation be part of the instructional activities of teachers.

- viii Establish kindergarten and special education teacher training units within the existing TTIs so that the programs will be integrated.
- ix Courses of non-formal education be introduced in teacher training curricula.
- x Conduct primary teacher training programs in nation/ nationality languages which are used in the instruction of primary education ; this has already started and a good deal of experience gained.
- xi Studies are conceived to be conducted as whether some of the existing primary school TTIs be promoted to college level by making necessary organisational improvements, and/or both 10+2 and 12+2 level teacher training program can be conducted within the same institute. It is however too early to deal with this issue further at this moment.
- xii Orientation of the existing teaching force to the implementation of the new Education and Training Policy is at a planning stage and the first try-out program to be carried out before the end of September 1994.
- xiii Distance method is sought to be one of the potential we have to train teachers on their jobs. Some preliminary activities such as training TTI instructors as tutors have already started.
- xiv Recruitment criteria for new teachers will be designed soon.

Currently most of the strategies are at proposal levels and further refining and planning activities are going on. Thus innovative/peculiar experiences can be gained in the implementation process with the

participation of regions, teachers and the community at large in the future.

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**Annex 1: Number of In-service Teacher Training Programme
Participants (Primary school Grades 1-6)**

Year	Plan	Actual
1980	2,000	1,530
1981	3,000	3,811
1982	3,500	3,033
1983	3,600	n/a
1984	3,600	1,429
1985	3,600	No program
1986	3,600	978
1987	3,600	1,485
1988	3,600	669
1989	3,600	738
1990	3,988	3,512
1991	3,532	3,008
1992	3,478	2,762
1993	4,480	4,567
Total	49,178	27,522

**Annex 1.1 : Teachers by Gender
Government and Non-Government Primary School**

Year	Male	Female	Total	Female Percentage
1960	8283	1242	9525	13.0
1961	9044	1295	10339	12.5
1962	10600	1406	12006	11.7
1963	11835	1679	13514	12.4
1964	13421	1775	15196	11.7
1965	14827	2373	17200	13.8
1966	16034	2610	18644	14.0
1967	17803	3048	20851	14.6
1968	20690	3779	24469	15.4
1969	21857	4295	26152	16.4
1970	23786	5030	28816	17.5
1971	23796	5283	29079	18.2
1972	24410	6277	30687	20.5
1973	26026	7296	33322	21.9
1974	29245	8609	37854	22.7
1975	32335	10012	42347	23.6
1976	35211	11411	46622	24.5
1977	36010	11781	47791	24.7
1978	37866	13056	50922	25.6
1979	42928	13756	56684	24.3
1980	44393	14007	58400	24.0
1981	50825	15194	66019	23.0
1982	50109	15531	65640	23.7
1983	52028	16341	68367	23.9
1984	51360	17097	68457	25.0
1985	51932	17820	69743	25.6

**Annex 1.2: Teachers by Gender Government and
Non-government Junior Secondary Schools**

Year	Male	Female	Total	Female Percentage
1960	1392	302	1694	17.8
1961	1631	300	1931	15.5
1962	1813	319	2132	15.0
1963	1906	261	2167	12.0
1964	2205	310	2515	12.3
1965	2600	339	2939	11.5
1966	2838	381	3219	11.8
1967	3360	348	3708	9.4
1968	3614	347	3961	8.8
1969	3701	321	4022	8.0
1970	2128	219	2347	9.3
1971	3443	421	3864	10.9
1972	4310	497	4807	10.3
1973	4365	454	4819	9.4
1974	4918	534	5452	9.8
1975	5386	621	6007	10.3
1976	5482	647	6129	10.6
1977	6120	787	6907	11.4
1978	6566	749	7315	10.2
1979	7684	952	8636	11.0
1980	8196	1087	9283	11.7
1981	9408	1113	10521	10.6
1982	9270	1082	10352	10.5
1983	9757	1183	10940	10.8
1984	9935	1330	11265	11.8
1985	9670	1126	10796	10.4

**Annex 1.3: Teachers by Gender, Government and
Non-government Senior Secondary Schools**

Year	Male	Female	Total	Female Percentage
1960	1155	253	1408	18.0
1961	1224	244	1468	16.6
1962	1453	361	1814	19.9
1963	1604	333	1937	17.2
1964	1907	392	2299	17.1
1965	1990	410	2400	17.1
1966	2513	442	2955	15.0
1967	2181	347	2528	13.7
1968	2463	367	2830	13.0
1969	2740	337	3077	11.0
1970	3176	334	3510	9.5
1971	3428	342	3770	9.1
1972	3897	450	4347	10.4
1973	4594	549	5143	10.7
1974	5127	605	5732	10.6
1975	5821	742	6563	11.3
1976	6255	808	7063	11.4
1977	6739	877	7616	11.4
1978	6952	951	7903	11.5
1979	7614	933	8547	12.0
1980	8385	918	9303	10.9
1981	9743	983	10726	9.9
1982	10231	1031	11262	9.2
1983	10710	1071	11781	9.2
1984	10811	1057	11868	9.1
1985	10164	1010	11174	9.0

3

Thirty Years of Teacher Education in Nigeria: A Review of Developments

*Nwabuno C. NWABOKU**

The importance of teacher education to a developing country like Nigeria is best described in the words of Ukeje (1988) :

Any nation that fails to invest adequately on teacher education and training, but rather invests heavily on production of engineers, medical doctors, etc. and on ammunition, will find that schools will produce unimaginative mediocre products, its pipes will always be without water, the dams and bridges will often collapse, the roads will be death traps, electricity supply will be erratic, hospitals will kill more than they cure and justice will be prevented and purchased.

A well planned and implemented teacher education programme is a precondition for the effectiveness and efficiency of all other educational programmes. In Nigeria, much thought and effort has been put into the planning and execution of an educational system which was expected to move the country forward in the direction of its national objectives. These objectives are :

- . free and democratic society ;
- . just and egalitarian society ;
- . united, strong and self-reliant nation ;
- . great and dynamic economy ;
- . bright and full opportunities for all citizens.

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In consonance with these objectives, the country has developed, through the years, a system of teacher education within the framework of the broad educational system. This paper traces the historical developments of teacher education in Nigeria since independence to date. Emergent issues are then examined and discussed.

Development in Teacher Education in Nigeria since 1960

Nigeria took its destiny in its own hands at independence in 1960 and naturally the primary focus was on education : the major instrument for shaping the future of the young nation. The machinery for educational reforms were set in motion. Earlier in preparation for independence, the Federal Government appointed in April 1959 a commission on Post-School Certificate and Higher Education, to conduct an investigation into Nigeria's higher educational needs, to satisfy the projections on anticipated middle and top-level demand for the following two decades. This commission was headed by Sir Eric Ashby and popularly labelled the Ashby Commission.

The commission submitted its report in September 1960 thus providing Nigeria with a sound leverage for the take off for post-independence educational expansion. The report was appropriately titled '*Investment in Education*'. It introduced systematic planning into Educational Development in Nigeria. The main proposals of the report with regards to the supply and training of teachers included recommendations for :

- remedial education for primary school teachers. using university buildings during vacations.
- teacher-guidance services. to maintain primary school teaching standards.
- university degree course designed specifically for intending teachers to include teacher training.
- new structure for the training of Grade I teachers through three channels of approach :

a) Advanced Teachers College

b) Through departments of Teachers Training in Technical Institutes

c) Additional sixth form streams to combine Higher School Certificate work with Teacher training

With continued expansion of primary school enrolment in the early 1960s and observed fall in standard, each region set up a commission to examine the development and problems of their primary school

system. Reports from each region advocated a corresponding increase in facilities for teacher training.

The Ashby Report had also recommended a diversified expansion in secondary, technical and vocational education. By the mid-1960s, the inadequacy in supply of qualified teachers had become a cause for concern. As reported by Taiwo (1980) in 1963 only 17% of teachers in primary schools were qualified. The case was not different for post primary institutions.

More Grade II teachers colleges were therefore opened. Entry into the grade II programme was now open to students with grade III certificates and from various levels of the secondary school system. With the phasing out of the grade III certificate, the grade II programme was extended to a five-year course.

The Ashby Commission had recommended the establishment of Grade I teachers colleges. This was implemented by the creation of Colleges of Education or Advanced Teachers Colleges, in all parts of the country. About five of such institutions took off between 1962 and 1964. These colleges were affiliated to universities which moderated their programme and supervised the standards of final examinations. Products of the colleges were awarded the Nigeria Certificate in Education (NCE) which qualified them to teach in the grade II teachers colleges and the lower forms of secondary schools. A national Technical College was started in Lagos in 1968.

Also, as a result of Ashby Commission report, the University of Ibadan introduced courses leading to B.A. and B.Sc (Education) in 1962. The University of Nigeria Nsukka also had a similar teacher education programme from inception in 1960. UNESCO agreed to assist substantially in the establishment and staffing of Advanced Teachers Colleges in each of the three Regions by 1962.

The developments described above varied from region to region. However, by the end of the 1960s it was apparent that the decade had been one of self determination in the educational sector for the nation. Monumental changes had been achieved in the educational sub-system of the nation in spite of the fact that the decade was characterised by turbulence on the political scene. Progress in the educational sector was not deterred by the regional riots, military coups and counter coups, the creation of new states, the secession of a region and ultimately the civil war in 1967.

It became necessary to set a guide for further progress. A major landmark in the development of education occurred in 1969 with the holding of a National Conference on Curriculum Development organised by the Nigeria Educational Research Council. The report of the proceedings of the conference was entitled 'A Philosophy for Nigerian Education'.

The 1970s witnessed unprecedented expansion in both primary and secondary education and the corresponding shortage of qualified teaching personnel.

The 1969 conference made far reaching recommendations for further developments in the educational system. It set the guidelines for the different programmes and processes. It attempted to re-orientate the educational system for self reliance effective citizenship and a new national identity. In 1973 the Federal government organised a seminar that translated the recommendation into a new school structure, the 6-3-3-4 structure.

- 6 years of universal primary education (UPE)
- 3 years of junior secondary school (JSS)
- 3 years of senior secondary school (SSS) with its parallels in teacher training school, technical schools and trade schools.
- 4 years of higher education. See appendix A.

This new structure posed the following challenges to teacher education :

- 1) Enough teachers had to be produced quantities to the proliferating classrooms.
- 2) A change in teacher training curriculum to match the national objectives, and provide teachers for the new disciplines mainly in the area of technological education.
- 3) The training of specialised personnel (like guidance counsellors teachers in special education, school health personnel, etc.) to cope with the demands of modern educational trends.

The Universal Primary Education Scheme was introduced in 1976, before the official promulgation of the National Policy on Education in 1977. The teacher training component had to be met urgently. For teacher education, the National Policy on Education set the Nigeria Certificate of Education (NCE) as the ultimate minimum qualification for teachers in primary schools (the target year for achieving this is set at 1998). In the interim the National Teachers Institute (NTI) was set up with a fourfold objective :

- To identify and clarify professional requirements of teachers and teaching.
-

- To design and mount programmes with objectives of teacher improvement.
- To operate and maintain a nation-wide programme which must work harmoniously with existing and similar programmes.
- To incorporate a strategy for change and innovation within its conceptional and operational frame work.

The NTI has its initial audience as the unqualified primary school teachers. It moderated and examined the grade II teachers certificate. Part of its programme is also the upgrading of the qualification of serving grade II teachers to an NCE level through part-time and distance learning systems.

To meet the demands of the new system the expansion of teacher education took many forms. The teachers colleges introduced new entry points ; a one year programme for holders of the school certificate, 2 years for students who failed the school certificate, 3 years for secondary school leavers at S75 (Secondary School Class 4) and Modern School Certificate holders, and 5 years for primary school leavers. The Federal Government took over the funding of the colleges in the nation.

Changes also occurred the tertiary education level in the 1970s. Seven more universities were opened and taken over by the Federal Government bringing the total number of universities to 14 by 1979. All these universities had teacher education programmes. Trainee teachers at the tertiary level were all entitled to bursary awards as incentives.

With the return of civilian rule in 1979 and the bid to make good the election promises of free education at all levels by some state governments the nation witnessed another 'bursting' of enrolment registers, this time at the secondary school level. As an emergency solution to the teacher vacancies created in secondary schools new Colleges of Education were established in 1979 bringing the number to 40 nationwide. The curriculum in some of the new schools required teachers to be on practice teaching for one academic year in the second year of their enrolment (Aghenta 1983). This alleviated the acute teachers needs to some extent.

The National Policy on Education at the secondary school level was implemented from 1982-1986 (all the states did not start at the same time). Apart from the stress on teacher procurement by the large enrolment figures, the wider range in curriculum offerings had to be

matched by teacher training curricula. The 1980s saw the expansion of the school curricula at all levels and the accompanying panic over provision of resources for technology education (Table 3.1).

Table 3.1 : Projections : JSS & SSS Enrolment (in 1000s) and Technical Teacher Needs (in 1000s) for 1985-91

Year	JSS	SSS	Technical Teachers	Shortfalls (in percentage)
1985/86	7424	-	102	94.52
1986/87	7526	1761	109	94.19
1987/88	7719	3505	118	93.11
1988/89	7835	5254	126	92.25
1989/90	7955	5434	128	90.28
1990/91	8072	5573	130	88.23

Source : Federal Ministry of Education (1986) report of study panel on Technical Teacher Education production in Nigeria Vol I.

The establishment of more technical Colleges of Education was the main option open to Governments. The number of such colleges rose from two in 1984 to nine in 1988. Another effort aimed at providing qualified teachers for secondary schools was the proliferation of part-time courses at the undergraduate and post graduate levels. These programmes were NCE sandwich programmes, Associate Certificate in Education courses (ACE) for grade II teachers, part-time degrees in Education, and Post Graduate Diplomas in Education for graduates, of the universities and holders of Higher National Diploma from Colleges of Technology.

A National Commission on Colleges of Education (NCCE) was set up in 1989 to co-ordinate the programmes of the Colleges of education. Entrance examinations into all higher institutions are conducted by the Joint Admission and Matriculation Board (JAMB) to ensure even standards. Each institution has its own Governing Council which takes care of all internal programmes and problems.

In the 1980s the teaching profession lost more prestige than ever before. The working environment for teachers was as deprived as could be. The growth in the number of schools at all levels outweighed any contingency efforts at equipping and staffing them.

This meant that there was a decline in the adequacy of the teacher training programmes and a consequent poverty of the products. This trend has continued into the present decade ; mass education in the face of an ailing economy. There are currently about 42 degree awarding institutions (with teacher education offerings in 30 of them) and 55 Colleges of Education. The present structure of teacher education in Nigeria is shown in Fig. 3.1. With the current phasing out of the grade II teachers certificate the recognised teacher education programmes are mainly at the Colleges of Education and the Faculties of Education of the universities.

NCE Programme of the Colleges of Education

The NCE programme is intended to provide teachers with adequate intellectual and professional background for teaching in the primary schools and the junior secondary schools. For admission into the programme a candidate must have a minimum of three credits of West African School Certificate (GCE O' Level) or a grade II teachers Certificate with credits in at least two subjects. The credits must include English Language and the two subjects the candidate proposes to offer.

The NCE programme has a duration of three academic sessions. The disciplines offered are in Languages, Humanities, Sciences (Basic and Applied). Technical subjects, in addition to Education. A teacher takes courses in Education, two major subjects within an area of discipline, General English and one minor subject.

Each college of education is affiliated to a University which moderates its programmes. The Administrative structure is shown in Figure 3.1.

Regulating Agencies For Teacher Education

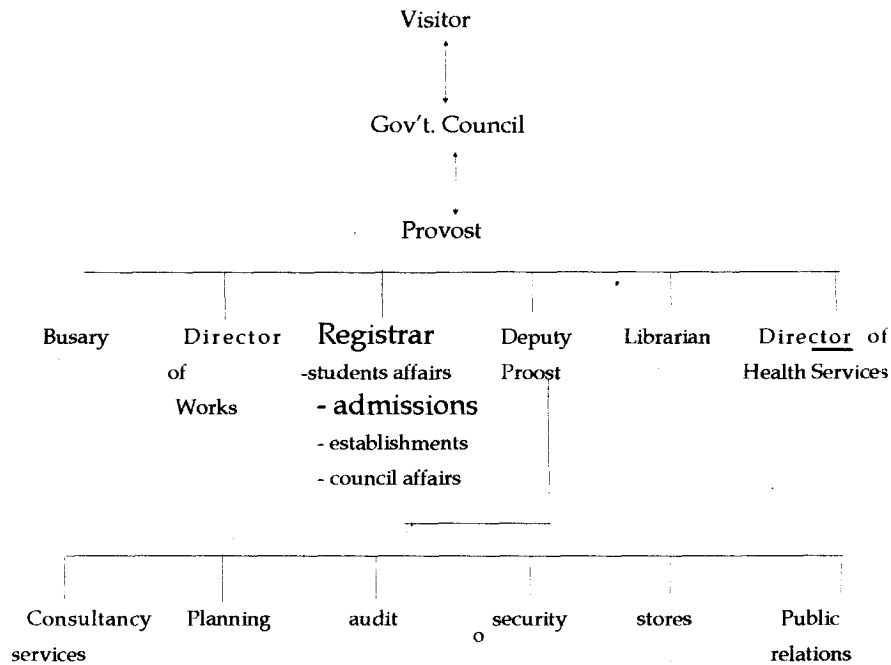
Quality control in teacher education programmes in tertiary institutions are ensured by the activities of three main agencies.

The National Universities Commission (NUC)

This is a statutory body set up in 1962 and charged with the responsibility of co-ordination, development and financing of Nigeria universities : The NUC is empowered to appoint inspectors to oversee the academic programmes in the universities. It specifies the minimum standards of resources for the different courses, determines the physical facilities required by students and staff, accredits individual de-

partment for the degrees awarded and sets the maximum space for admission available at each university.

Fig. 3.1 Administrative Structure of a Nigerian College of Education



Source : Gbadamosi an Adekoya (1993)

The National Commission for Colleges of Education (NCCE)

The NCCE was established in 1989 as the co-ordinating body for Colleges of Education. Its functions include : the setting of minimum standards, accreditation of programmes and certificates awarded. Under the auspices of the NCCE, Colleges of Education are expected to grow into professional teacher education institutions awarding

certificates, diplomas and degrees such as Associateship Certificate of Education, NCE, B.Ed, M.E, and E.d. D. Currently some colleges of education run degree programmes.

The Joint Admissions and Matriculation Board. (JAMB)

JAMB was set up in 1978 to conduct matriculation examinations, and place suitably qualified candidates into the universities. Its scope was extended in 1989 to include the control of admissions into the colleges of Education and Polytechnic (Colleges of Technology).

In placing qualified candidates in institutions, the Board takes into account the vacancies in the tertiary institutions and preferences indicated by candidates for institutions and courses.

Contemporary Issues and Problems in Teacher Education in Nigeria

Most contemporary issues in teacher education can be anchored on the qualities and quantities of teachers training in the higher institutions. These will be examined in the light of the purposes of teacher education as outlined in article 58 of the National Policy on Education:

- a) to produce highly motivated, conscientious and efficient classroom teachers for all level of our educational system ;
- b) to encourage further the spirit of inquiry and creativity in teachers ;
- c) to help teachers to fit into the social life of the community and society at large and to enhance their commitment to national objectives ;
- d) to provide teachers with intellectual and professional background adequate for their assignment and make them acceptable to any changing situation not only in the life of their country, but in the wider world ;
- e) to enhance teacher commitment to the teaching profession.

The Question of Quality

With the acceptable minimum teaching qualifications set at the Nigeria Certificate of Education (NCE) Nigeria has set very high standards for itself in teacher education. The NCE programmes run by the Colleges of Education are very similar to the graduate programme run in the universities except for depth of content.

The supervising bodies for both institutions : the National Universities Commission and National Commission for Colleges of Education set the minimum standard for the programmes and resources and accredit institutions for the programmes and resources and accredit institutions for the programmes which meet the required standards.

specialise in two subject areas. At the university level specialised courses are also available. (e.g. guidance counselling, physical and health education and special education).

Quality control is further strengthened by admission of students through a Joint Matriculation Examination. In addition to passing the matriculation examinations at the set score candidates are required to have passed at least at credit level in three 'O' Level subjects for Colleges of Education, and five credit passes for the university courses. The weak point in the programmes arise from the high demand for tertiary education. With the large numbers of institutions and programmes available, many institutions have to contend with the barest minimum of facilities and personnel. While the younger institutions cannot buy equipment, older ones have broken-down equipment that cannot be repaired or replaced. The economic instability of the country is taking its toll on teacher education.

Also militating against the production of skilled teachers is the issue of practice teaching or internship for student teachers. The pre-service student teachers are bugged down by the ever expanding theoretical aspects of education and courses in the teaching subjects, and may not have enough practice at acquiring and improving teaching skills. In the past four years, the political instability in the country, and in the higher institutions, have caused disruptions which distort the school year and make it difficult for teaching practice exercises to be fully implemented. This is in spite of a minimum of 12 weeks of teaching practice prescribed by the NUC for the universities.

Some Colleges of Education however send out their students for teaching practice for a whole session or semester. In the universities, extended periods of teaching practice is not possible because of the inability of servicing faculties to reschedule time tables to suit the education students. An attempt by the Lagos State University to introduce internship into the training of trainee teachers could not continue.

The School Attachment Programme (SAP) introduced in 1984 at the inception of the university required student teachers to be in contact with a school system throughout their 4-year study, gradually increasing their degree of involvement in the activities in the school through

four stages. The programme was discontinued in its tenth year because of time scheduling problems for staff and students. In smaller university towns it could also be difficult to find enough schools near enough to the university for easy access of faculty to trainee teachers.

Teacher Demand

The problem of providing enough teachers for the school system in Nigeria has so far defied easy solution. As efforts are made to produce enough teachers many factors militate against a balancing demand and supply. These include :

- 1)The low image of the teaching profession ;
- 2)Limited funds for expanding the capacity for intakes into existing institutions ;
- 3)No enhancement in salaries of some NCE & B. Ed. in-service products, and ;
- 4)Uneven production of teachers by states and teaching subjects.

Over the years, the image of the teaching profession has suffered. In the face of more attractive and lucrative professions (like Medicine, Law and Banking). Teachers have ceased to be all knowledgeable as they appeared in the past. Admission places for teacher education are filled in the higher institutions only because most students who did not secure admission in their choice courses will rather enrol for education than sit at home (A few do prefer to sit at home). The teaching profession was worse hit in the early 1980s when even basic salaries of teachers could not be paid. The trend still continues.

The teachers became the poorest group of all Nigerian workers. With the down turn of the economy, the teacher has been neglected, marginalised and frustrated. Graduates with teaching qualifications accept teaching jobs only when they are unable to secure any other.

Yearly, many qualified candidates cannot be admitted into tertiary institutions because of limited spaces. Existing facilities are overstretched and funds are not readily available for expansion. As a result many institutions mount part-time courses as mainly revenue generating functions rather than academic. Serving teachers take advantage of such courses to upgrade their qualifications and pay the exorbitant fees.

Unfortunately most teachers who upgrade their qualification in-service, through part-time programmes do not have their remunerations enhanced. Their prospects in the professional line is however advanced. Many of these leave the system as soon as the opportunity arises.

From the foregoing it can be concluded that teacher education programmes as envisaged in the National Policy on Education and programmes set up within the universities and colleges of education are adequate for the quality of teachers needed for the Nigerian school system (Udoh, 1984). However the bottom line for any educational achievements in the developing world is financial solvency. The purposes of teacher education may not be achieved until sufficient funds are available to institutions for the building up of essential facilities and equipment for teacher education.

Funds are also necessary for alleviating the status of the teacher by way of an enhanced remuneration structure, social welfare considerations, teacher supporting programmes, etc. Until then the problem of attrition of school personnel would not be solved.

Future Prospects

The waves of teachers strikes at all levels in the past five years has drawn public attention to the educational sector and teacher stress. Response to these problems have come in various ways.

The co-ordinating bodies the NUC and NCCE are currently in the process of accrediting the programmes of the universities and Colleges of Education. In appreciation of this the institutions and governing bodies are engaged in efforts to meet the conditions for accreditation of their courses.

The various trade unions involved in the teaching profession have sustained a dialogue with the various governments on the funding of education and the conditions of service of teachers. These bodies include the Nigeria Union of Teachers (NUT) ; The Academic Staff Union of Universities (ASUU), and All Nigeria Conference of Principals of Secondary Schools (ANCOPSS). As a result of this sensitisation the Federal Government by 1992 had released Rehabilitation Grants to all the Universities and Colleges of Education. In 1993 the Federal Government directed that 2 % of the yearly profits of companies operating in Nigeria should be contributed towards a National Education fund. Also Government has put in place a number of agencies to oversee the educational sector. These include the National Primary Education Commission (1990), the National Commission for Seco-

dary Education (1994), and earlier, the National Board for Technical Education (1995). Unfortunately the present political climate in Nigeria is hampering work of these commissions but it can be hoped that problems in the educational sector bothering on the environment in which the teachers work and qualities and quantities of teachers available in the school system would improve.

The agencies and the institutions of higher learning with teacher education programmes need to embark on a massive campaign for public support. Assistance from the international organisations like UNESCO and UNICEF should also be solicited for teacher education.

International movements for the upliftment of the quality of teacher education should be mounted. Programmes like the Mass literacy campaign, EFA, Environmental Education, Education of Women, would have limited success without a corresponding campaign to train teachers.

Finally, Nigeria should consider the establishment of Universities of Education or the facilitated development of some Colleges of Education into Universities of Education. This would enhance the restructuring of the teacher training curricula at the higher level to cater for needs for in-depth development and mastering of pedagogic skills and strategies. Such institutions would be diversified enough to produce specialist in all disciplines relating to teaching and learning ; instruction should be much more than a knowledge of content.

Conclusion

Nigeria as a nation has made concerted efforts to build up the type of educational system it needs for the achievement of its national goals and for development along the desired technological lines. The teacher education sector has not been left out in this effort.

The new educational structure recommends that teacher education should be undertaken at only the tertiary level. This is to ensure that the educational enterprise is entrusted to only nature and knowledgeable individuals. The lower certificates of education are being phased out systematically.

The elaborately planned teacher programmes have however run into problems mainly as a result of funds. This has limited the level of expansion of the programmes and the consequent production of enough teachers for all levels of the educational system. Another

factor which has been identified as militating profession which has become more bothersome in recent years. This is also indirectly related to the non-release of adequate funds to the educational sector.

In view of all the above, issues relating to teachers and teacher education need to be viewed in a new perspective. Teacher education is fundamental to the success of the whole school system. It should be given international attention. An international campaign should be organised to focus attention on the plights of teacher education. Programme like 'The international year of the teacher'. Teachers day etc. should be organised. The teacher is a more "endangered species" than any other.

International, campaigns geared towards the stimulation of teacher education would yield more funds for the provision of facilities necessary for producing a competent force of skilled teachers needed for technological progress and self-reliance in African states and eventually lead to economy independence.

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4

Teacher Education in Tanzania : Innovations and Constraints

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Teacher education in Tanzania is carried out in teacher training colleges (TTCs) and universities. By 1993, 40 TTCs and the University of Dar Es Salaam were engaged in the training of teachers at various levels. In 1994, the Open University of Tanzania began offering degree programmes including education.

The 40 TTCs under the Ministry of Education and Culture (MEC) train teachers for primary and secondary schools. Teacher education for primary and secondary schools. Teacher education for primary schools consisted, until 1992, of two main levels : Grade A and Grade B. Grade A enrolls Form IV leavers with a minimum of two credits plus two passes in the Certificate of Secondary Education Examination (CSEE). The train for two years in academic subjects and pedagogy. Grade B, which is being phased out (since 1992), took four years of training : two years in academic subjects (equivalent of up to form II) and other two years of professional training. Grade B had involved Standard VII (primary school) leavers. Successful candidates of grades A and B are awarded certificates in teacher education. For example, in 1993, 8057 and 3,491 students were enrolled in Grades A and B respectively (MEC, 1994 : 27).

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Nine out of the 40 TTCs also offer a two years diploma course to Form VI leavers who at least have two principal passes in the Advanced Certificate of Secondary Education Examination (ACSEE) in the case of Arts students or three subsidiary passes for the science students as in the case of the latter the failure rate is very high. In 1983, for example, 2,366 students were pursuing diploma courses. Diploma holders are normally expected to teach in the lower forms (especially Forms I-II) of secondary schools, but due to shortages of graduate teachers they often teach up to Form IV.

Universities train teachers for four years. They normally admit high achievers in the Form VI ACSEE and train them in at least two academic subjects and pedagogy. Between 1964 and 1990 training was a three year crash programme to meet the demand for teachers in secondary schools and TTCs. In the country's efforts to raise the quality of education, the crash training programme has been abolished to allow adequate time for teachers' preparation. University graduates normally teach Form III-VI students and a few are posted to TTCs where they prepare primary and secondary school teachers and some tutors who remain in the TTCs to prepare other teachers. In 1993/94, for example, 523 students were being trained as teachers at university level (Ministry of Science, Technology and Higher Education, 1994 : 13).

The teaching staff by qualification by December 1993 was as shown in Table 1. Ministry of Education and Culture, Basic Education Statistics in Tanzania (BEST) 1989-1993, June (1994 : 30).

Early Patterns of Teacher Education

The Primary School Teachers

Some of the Grade A teachers were trained through a one year programme. Due to shortages of primary school teachers in the late 1960s training was reduced from two years to one year. However, those trained after 1984 have had a two year training period. This reduction of training period was equally true for the Grade B teachers who trained for two instead of three years. After 1984 their period was lengthened to four in efforts to improve the quality of education following public complaints against falling standards in education. Among 70,352 Grade B teachers, 37,998 (54 %) of them were trained under Distance Teacher Training Programme (DTTP) to meet univer-

sal primary education (UPE) demand for teachers. The DTTP which was carried out in the late 1970s and early 1980s was of three years duration using a combination of various strategies: face to face instruction, correspondence lessons, practical teaching, radio broadcast, audio-cassette programmes and six weeks of residence TTCs at the end of the final year. The quality of these teachers is debatable. Some think that they are as competent as those trained in conventional TTCs (Chale 1983 ; Mahlck and Temu 1989). Others such as Ishumi (1985) and Malekela (1993) are skeptical due to the fact that those entering this level were academically weaker students (as the better ones had joined secondary schools, TTCs and other post-primary training institutions), they were selected haphazardly and trained under constrained environments. Some of the DTTP teachers are said to be able to teach only soft subjects like civics and sports.

**Table 4.1 : Teaching Staff by Qualifications, 1993
(in percentage)**

Level	Graduate		Doplama		Grade A		Others		Total
	Male	Female	Male	Female	Male	Female	Male	Female	
Primary	-	-	-	-	19.5	-	39.8*	28.4*	101,816
Secondary (public)	12.1	4.7	53.3	26.3	-	-	2.3*	1.1	5,262
Secondary (private)	16.4	0.7	46.7	3.3	-	-	31.4	1.3	4,306
TTCs	17.1	3.4	43.5	16.0	15.1	3.3	1.4	-	1,171
Total	1.4	0.3	4.7	1.5	17.8	11.8	36.7	25.8	112,535

Source: Ministry of Education and Culture (1994:30)

* Grade B teachers

Secondary School Teachers

As shown in Table 4.1 there are three categories of teachers at the secondary school level : university professionally trained teachers, diploma in education holders and others who are normally not professionally trained teachers. The most adversely affected by having unprofessional group of teachers are the private secondary schools as one third of their teachers are untrained. Due to the rapid expansion of secondary schools, especially the private ones, the owners of these schools are compelled to employ even those without the required

qualifications - diploma or a degree plus professional training in education, contrary to the Education Act of 1978. The majority of them are Form VI leavers with a poor performance in their ACSEE. Partly as a result of this poor cadre of teachers, private secondary school candidates have poorer performance results in public examinations than their counterparts in public secondary schools.

For those who have a diploma in education some had two years of training at a TTC, while others have had only a one year crash training programme (for those trained between 1968 and 1993). The university graduates have a three/four year training programme. Those with three years have been trained between 1964 and 1990 as the four year programme was condensed in three. Following complaints by both the trainers and trainees, a four year programme has been reinstated.

The major innovation in pre-service teacher training was the DTTP which began in July 1976 and ended in 1984. During the period 37,998 teachers successfully completed the programme and greatly helped in the implementation of UPE which came into effect in November 1977. Without this approach of teacher training, the realisation of UPE would have been a dream, especially in the rural, poor remote areas.

Continuing Teacher Education

Inservice training is necessary for teachers as they need to advance themselves academically and professionally. Secondly, the rapid growth of science and technology requires teachers to update themselves. Inservice programmes may be of several types : they may range from weekend seminars, workshops/seminars that last for a week or two, residential programmes lasting for two or more months, upgrading courses, etc.

Primary School Teachers

In the 1960s up to early 1980s there were two months residential courses run under the auspices of MTUU - a joint venture between the Tanzania government, UNICEF and UNESCO. The programmes were expensive and could cater for very few teachers. Between 1970 and 1981 only 10% of the 98,000 primary school teachers were retrained through MTUU's two months programme (Mrutu 1992). This programme could not meet the needs of the majority of the teachers.

As stated earlier, Grade B is being phased out. This means that the current 70,352 (69%) teachers out of the total 101,816 primary schools teachers will have to upgrade themselves to attain Grade A status. It means that they will have to study privately through correspondence, sit for the CSEE ('O' -level) and go for a one year residential training at TTCs after attaining at least Division III in the examination.

Between November 1980 and 1992 some Grade B teachers who were interested in upgrading themselves to Grade A were provided with one year 'O' level education and a one year course in pedagogy at TTCs. Due to the high cost involved in this inservice programme, it has been phased out as TTCs were seen to be partly functioning as secondary schools.

During the same 1980-92 period there was an inservice programme for Grade A to Diploma level involving Grade A teachers by providing them with a one year of 'A' level education followed by one year of methodology in TTCs. The new policy of the Ministry of Education and Culture is for both grades to study the academic part through correspondence at their schools, sit for the examinations as private candidates and those attaining Division III and then go for a one year residential course at a TTC.

Correspondence education is cost effective. However, given the country's vastness, poor communication system, lack of reading materials and the fact that poorly qualified and trained teachers tend to be concentrated in rural and remote areas, the new policy might discriminate against this category of teachers. They will have very limited opportunities to interact with colleagues of higher academic standing.

In the past, Grade A teachers who had gone for Diploma inservice upgrading moved to teach in secondary schools or TTCs. Instead of strengthening the primary school teaching capacity it was weakening by removing the better talented. The new policy is to retain them in primary schools. However, there may be a danger of being 'poached' by private secondary schools unless their status and working environments will be improved.

Other inservice programmes are for special subjects. These include Home Economics, Physical Education, Theatre Arts, Fine Art, Commercial subjects, Agriculture, Science, Technical subjects and the teaching of the three 'R's, i.e. reading, writing and arithmetic. For

example, in the 1993/94 financial year 1,023 teachers attended an inservice course in the teaching of the three 'R's, science, mathematics and English as pupils seem to face difficulties in their mastery (Sarungi 1994).

Innovation in Inservice Programmes for Primary School Teachers

Teachers' Resource Centres

In 1986 the Ministry of Education and Culture issued a circular to set up Teachers' Resource Centres (TRCs) at centrally located primary schools and TTCs. TRCs were to make qualitative improvements in the teaching-learning environment of primary schools. In some districts plans are under way to establish one TRC for every ward. Constant changes in curricular require specific training of the teachers.

The implementation of the circular has been very slow due to a lack of clear guidelines on implementation strategies, and financial resources and management constraints. Once operational, TRCs are expected to undertake the following activities :

- training and conducting seminars for head-teachers, teachers, ward education co-ordinators, school committees and village government councillors;
- development of innovations to improve the learning in school such as making teaching gadgets from locally available resources ;
- distribution points of correspondence materials for the academic upgrading teachers ;
- meeting place for weekend support sessions to the participants of correspondence courses, and ;
- storage of textbooks and other instructional materials that can be loaned to teachers of schools clustered in the area.

If resources (both human and fiscal) could be made available, TRCs could become centres of innovation, quick dissemination of curricula changes, meeting places for academic exchange of ideas and places for ease of reference materials. The few that operate have started being used as places where teachers meet for evening classes in preparation for 'O' and 'A' level examinations. They are less expensive and closer to teachers than the TTCs.

The recurrent budget given to the Ministry of Education and Culture has been falling over the years. Whereas the Ministry was allocated 4.8% of the central government budget in 1988/89, for example, this financial year (1994/95) is the worst ; it is only 1.7% of the budget. The government does not seem to be serious in raising the quality of

education. Since last year there have been a lot of problems : teachers' strikes and go-slows, and some students, especially in public boarding schools, have burnt school property for very poor and inadequate meals. After the June-July vacations, most public boarding schools opened late as there were no funds to run them. The meagre allocation of resources will definitely disrupt the establishment of new TRCs and operation of the existing ones.

Meagre funding allocated to education has forced even the dilution of the quality of training of certificate and diploma teacher trainees. With effect from 1992, Block Teaching Practice has been scrapped off as part of the training component due to a lack of funds. This is a very serious weakness in the programme of teachers as it now concentrates mainly on theory at the expense of practice which is essential in any professional training.

Primary Education Programme (pep)

The Ministry of Education and Culture has recently introduced Primary Education Programme (PEP) the Danish International Development Aid (DANIDA) assistance to address the declining quality of primary education. PEP aims at qualitative improvement of the learning environment. Quality improvement is done through:

- the establishment of TRCs
- developing more effective teaching-learning materials.
- improving the school environment through rehabilitation of existing buildings, construction of additional classrooms, and developing preventive maintenance systems for schools, and
- raising the quality of leadership and management.

The approach emphasises the involvement and commitment of the communities to participate in the planning and implementation of the decision in line with local capacity.

The PEP is being implemented on experimental basis in Mbeya, Songea, Mbulu, Maswa, Bukoba and Kilosa districts. Donors involved in the exercise include, besides DANIDA, TAMOFA (Tanzania-Mozambique Friendship Association), the World Bank and the governments of the Republic of Ireland and the Netherlands. The Netherlands government has coined the project Basic Education Programmes (BEP) as to them education should also lead to the participation and empowerment of adults.

The major problem of this attempt is the question of sustainability once the donor component is removed. The local contribution and enthusiasm should be maintained at high levels as otherwise the approach may collapse once the donors cease pumping in resources. The approach seems to be good as it involves local communities although we are not sure how much input the communities have in the programmes.

Innovation in Pre-service Training

The only notable innovation in the area is the phasing out of Grade B teachers and stoppage of recruitment of primary school leavers to teach their primary school peers. This constituted about 70% of the teaching force at the primary school level.

As the quality of primary education has been on a geometrical decline, it is proper that this cadre of teachers should not be relied upon over the years. Due to the increasing number of Form IV leavers, the latter have now been recommended to replace the former candidates. Despite the policy insisting that the minimum entry qualification should be Division III in the CSEE, the high failure rate forces the officials to shop for a few among the better holders of Division IV. For example, out of 35,025 Form IV public and private school candidates in 1993, only 21% of them attained Division I-III. The rest would have been unwanted by the new criterion of recruitment as 59% had Division IV and 20% failed completely (Ministry of Education and Culture 1994:19). Since they have to go to other sector as well, the number required in TTCs falls short of the expectations.

This therefore calls for an improvement in the quality of secondary education as well. Failure to address this means either continuing recruiting weak teacher candidates or leaving vacancies in TTCs which is and which in turn will mean less supply of teachers for primary schools.

Secondary School Teachers

Pre-service innovation is in the recruitment criterion policy. Only those with a minimum of Division III in the ACSEE are to be recruited.

However, due to high failure rate in science subjects, mediocre performance is currently tolerated as otherwise it would lead to more shortages in secondary schools.

Inservice training is an acknowledged necessity for teachers as they regularly need to be exposed to new methodologies and approaches of teaching consonant with the ever changing world. Again due to meagre budgets, even programmes such as the teacher Inservice Science Education Training (INSET) programme for secondary school teachers established at the Faculty of Education, University of Dar Es Salaam, have been suspended since 1992 for lack of funds. Inservice programmes that seem to be less affected are those with donor support. Included is the English Support Project funded by the British Council.

Diploma holders and those without professional training if they have the minimum qualifications to join university education have since January 1994 an opportunity to apply to the Open University of Tanzania (OUT) that started offering its programmes then. A good number of the diploma holders and others who found difficulty in the past to enrol in conventional universities for one reason or another are now having university education through correspondence. According to Mmari (1993), 382 students are pursuing teacher education programmes. The Ministry of Education and Culture has this year set aside Tshs. 7.4 million (about US \$ 13,883) to pay for part of the costs of the upgrading teachers enrolled at the OUT (Sarungi 1994:19).

Setting aside more funds for scholarships should motivate more teachers to upgrade themselves academically and professionally. It is cheaper to upgrade teachers this way despite the known problems of correspondence education with its disproportionate discrimination against working women.

Teacher Training Colleges

The policy is to liberalise the establishment, ownership and administration of TTCs (Ministry of Education and Culture and Ministry of Science, Technology and Higher Education 1993:47) to supply enough teachers with the requisite qualifications. To date the Education Act N25 of 1978 has not been amended to allow non-governmental agencies establish their own TTCs. Non governmental owned TTCs were nationalised in 1969.

Innovation policy in TTCs is the insistence on owners and managers of such institutions to ensure the availability and access of standard infrastructure, facilities, equipment and instructional and professional

development and improvement of teachers. Its implementation, however, will depend on committing adequate resources by the concerned parties.

Another innovative policy is on qualification of tutors in TTCs. The minimum qualification for trainers of teachers at certificate and diploma levels shall be possession of a valid university degree, with the necessary relevant professional qualifications, specialisation and experience. Theoretically it seems to be a move in the right direction in efforts to improve quality of education. Resources must be committed to meet this policy if it is not to remain on paper.

Conclusion

Teacher education is important in any system in order to ensure an adequate supply of qualified teachers. The training of teachers should not be treated in isolation with the teachers' living and working conditions. Even if highly trained, a teacher may fail to deliver the goods if the working environment is uncondusive - lack of good quality resources and materials and infrastructure. Teachers also need to be adequately remunerated and properly housed in order to perform their functions. There is also a need to have incentive packages and a well established inservice training programme for self and professional advancement.

Once the living and working conditions are conducive it is possible not only to attract but also retain good quality teachers. The contrary will see poor quality and lowly motivated teachers and the better ones leaving for greener pastures elsewhere.

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5

Evaluation of the Education of Teachers

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The training of primary-level teachers is carried out according to patterns which are as varied as different depending on countries. Apart from the traditions which were inspired by the French system of teacher training institutions, training at university level seems to be gaining ground gradually. In a growing number of countries, the faculties of Education or similar institutions - like the faculties of pedagogic training and of psychology for example - provide training for teachers or play an important part in that training.

Determining a framework for the education of teachers raises the duo question of the nature of the training and, of the level of admission/completion for the trainees. Generally, primary-level teachers and secondary-level teachers do not receive the same training whereas teachers in higher education still seem to escape any pedagogic training policy.

As regards primary-level teachers, in places where teacher training institutions (Ecoles Normales d'Instituteurs and Centres de Formation Pédagogiques) still exist, trainees are recruited at a level at least equivalent to that of the end of form four (4) (or CITE 2 according to the Standard International Classification of Education [Classification Internationale Type de l'Enseignement]) in order to be trained for a period of two to three years duration.

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However, due to the fact that priority should be given to basic education as advocated by the World Conference on Education for All held in Jomtien, Thailand from 5th to 9th May, 1990; there seems to be a new trend towards the establishment of Teacher Training Institutions (Ecoles de Formation des Instituteurs-EFI).

With regard to secondary schools, there may still be teachers who are recruited after completing secondary education (end of secondary level or CITE 3) and sent, without training, to teach students. One may assume however that the Teacher Training Institutions (Ecoles Normales Supérieures) created in French-speaking Africa in the 1960s, with the support of UNESCO, should be able to meet the needs. Here also, there is a tendency to set Teacher Training Institutions (Ecoles Normales Supérieures) up as Faculties of Education.

The preceding brief overview reveals the existence of quite diversified situations which may be appreciated in different ways. Some people fight the expansionism of the discipline of Education where others express doubts about the competence of the most experienced teachers for providing good-quality training for secondary-level teachers in Teacher Training Institutions (ENS). Some people sometimes maintain even that there is no need for training in order to be a good teacher.

In spite of these various opinions, one may assert that the quality of education greatly depends on the professionalism of the teachers. Professionalism implies that the teacher must feel at ease in front of his/her students. Therefore, he/she must be able to listen, to plan and answer questions, to provide motivation, to organise and communicate contents, to express himself/herself correctly and fluently without being pedantic, to use teaching-learning materials and audio-crypto-visual aids, to evaluate, to organise the classroom. Professionalism also implies that experience only, even if it is coupled with a good knowledge of the contents to be taught, is not enough to make a good teacher and that an immutable training pattern cannot prevail in all times and in all places.

The education of teachers, whatever the level it is intended for, must be a permanent quest. It must be based on the questioning of convictions. It must take into consideration the views of people involved and the scientific and technological development.

Since 1982(1), the Teacher Training Institution (ENS) of Dakar, which is meant to contribute positively to the professionalism of teachers, endeavours to have critical opinions on its own practices and assesses the situation regularly.

In 1992, it organised a seminar on Training and Research, at the local level. In 1983, the section of the governing bodies adopted a training programme. In 1984, it was decided to issue a complete diploma to the graduates, thus breaking with the tradition of giving tenure to them during their first year of practice.

In December 1992, a National Seminar was organised in order to discuss the results of the evaluation of the training and the products of the training. In June-July 1993, an International Colloquium on the same theme was held in Dakar.

In fact, the National Seminar and the International Colloquium gave the ENS of Dakar the opportunity to develop an evaluation pattern.

The Evaluation Pattern

Determining a Theoretical Framework

The ENS is a complex institution which comes under the university that is to say higher education which is itself a sub-system of the national educational system. Therefore, it did not seem useful to try to make a classical macro-evaluation or a systemic evaluation which would have covered all the aspects related to:

- the context;
- the inputs;
- the process; and
- the products.

It is simply a matter of collecting and processing information in order to determine:

- whether the types of training provided at the ENS correspond to their (implicit or explicit) "objectives";
- whether the types of training that are carried out satisfy those who benefit from them (the graduates their users and trainers).

The evaluation is focused on training (and not on the institution) (2). According to De Ketele (1988 b), training is both the systematic process of the acquisition of knowledge, know-how, of learning to be, of being equipped with life skills and the result of that process. Thus,

this definition makes it possible to consider training (as a process) and its products (as the results of the training process) critically.

How to Look Critically at Training as a Process and as a Result?

The stated aim of those in charge of the evaluation, who were appointed by the ENS, was to find out whether the products (the graduates in practice) are 'good', if not, what corrections are to be made to the intention and process which made it possible to train them.

The evaluation carried out in that perspective was inspired by the pattern(3).

According to Stufflebeam 1980, 'education evaluation is the process whereby one determines, obtains and provides useful information in order to appreciate the possible decisions'.

However, this definition has been supplemented by the one proposed by De Ketele (1988), according to which 'evaluation is a process consisting of collecting relevant, valid and reliable information and considering the extent to which this information matches the criteria appropriate for the set objective with a view to taking a decision'(4).

Three sources of information were identified in order to evaluate training and the products of the training at the ENS:

- 1 the macro- and micro-decisions formulated by the authorities organising the training and by the institution ;
- 2 the training provided: the process and the results;
- 3 the views expressed by the graduates who have left the institution for two years at least, by the users and trainers on the macro- and micro-decisions and on training.

The evaluation pattern based on the principle of *triangulation* consisted of comparing the data related to these three sources in order to determine their appropriateness and relevance.

To this effect, attempts were made to:

- define precisely the general guidelines and the missions entrusted to the institution by the organising authorities;
- determine the extent to which the knowledge, know-how, the notion of learning to be and that of being equipped with life skills, that have been acquired, are relevant to the general guidelines and the missions on the one hand and, to the realities of the environment on the other hand;
- determine whether the quantity and quality of the products match the general guidelines.

The Objectives of the implementation of the evaluation process were:

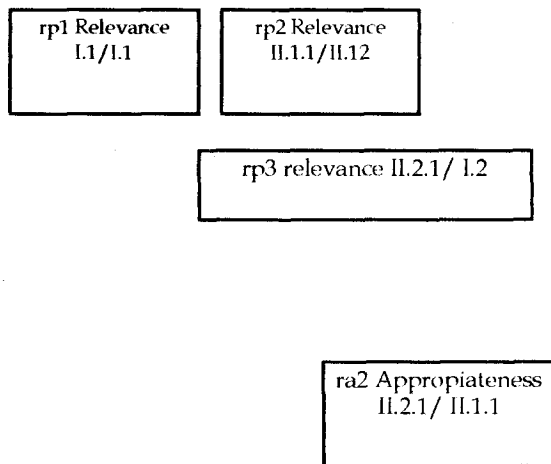
- to describe the intentions in order to define the macro-decisions or general guidelines really assigned to the institution; to identify the micro-decisions

developed following the macro-decisions and, above all, to wonder about the extent to which the training advocated is relevant to the macro-decisions:

- to analyse training in order to define the training process carried out, that is to say to identify the objectives achieved by the institution and to ask oneself whether the achievements are relevant to the training programmes advocated:

Figure 5.1 Simplified Diagram of the Evaluation Plan

I- the Intentions		II- Training		III- The Decisions (proposals)	
I.1 Macro Decisions: missions of ENS	I.2 Micro Decisions: Objectives and training programs of the ENS	II.1 Process	II.2 Results	III.1 Intentions	III.2 Process
Guidelines set by the Government	Objectives and training Programme proposed by the ENS	II.1.1 Training carried out	II.2.1 Statistical results	III.1.1 According to the respondents	III.2.1 According to the respondents



Notes: rc=conformity; rc1: III/seminar; rc2:III/II.1.1 and I.2; rc3; III/1.1

- to evaluate the opinions expressed by the graduates.
- their users and even those in charge of training;
- to determine the number of graduates and their distribution; to try to find whether the statistical results are relevant to the micro-decisions and whether they match the macro-decisions;
- to analyse the opinions that the graduates have of themselves as professionals (of education/teaching). to determine the extent to which the products put on the market match the educational needs; to determine whether the training process carried out is relevant to the results;
- to prepare for taking decisions regarding solutions that are geared to the intentions and to the processes.

The different stages of the evaluation process appear in Figures 7.

The Utilisation of the Pattern and the Results Obtained

The utilisation of the evaluation pattern required:

- a general objective;
- secondary objectives or research objectives;
- central questions for research;
- questions-problems;
- the search for relevance;
- the search for appropriateness; and
- the search for conformity.

The triangular approach called for:

- the collection and analysis of all laws and regulations;
- the detailed study of homework notebooks (log-books) of the different groups, of the training programmes advocated and of those which have been carried out;
- the interview of graduates (who left the ENS between July 1982 and July 1990), of their users, of those in charge of training at the ENS and of trainers(5).

Finally, national and international 'specialists' were regularly consulted.

The data collected were :

- analysed in terms of content (regulations, log-books, training programmes);
- studied in detail and word-processed, using ISSA, SPSS, HG and WORD softwares (questionnaires for graduates, users, trainers);
- analysed quantitatively; and
- explained.

The analysis and interpretation of data led to the following results, some of which could be expected, others undreamt-of and some

relatively worrying. As regards regulations, the micro-decisions developed by the ENS reflect fully the macro-decisions defined by the Government.

In reality, it appeared that the difference between micro-decisions and macro-decisions is very slim. In fact, the ENS prepares the regulations (laws and decrees) by putting many details which virtually make of them real micro-decisions or near training programmes. As such, the ENS can easily provide training which strictly complies with the regulations. However, it does not fully carry out the training programmes. Some training activities which are clearly mentioned are not carried out. The training is effective because it achieves the objectives assigned, considering that the ENS trains different categories of personnel in expected number. However, the duration, the evaluation methods, the profiles at the end of the training and trainers pose a problem.

The objectives related to training have been achieved; however, there are some inadequacies which prove to be a serious handicap on the ground.

The training is therefore effective without being efficient and must be improved.⁶ Therefore, the new guidelines to be defined for the ENS are related to the regulation. The training programmes, revised periodically, should be fully carried out.

In fact, taking into account the experience gained on the ground and the needs, even vague ones, the solutions advocated by the respondents and the recommendations made by the National Seminar are all or nearly all options made by the Government and included therefore in the Laws and Decrees. These options are often prepared by the ENS which yet delays implementing them.

The inadequacies of the training and their consequence on the effectiveness of the products on the ground are the result of the failure to implement the regulations (macro- and micro-decisions) or of their unsatisfactory implementation. They require therefore regulation actions⁽⁷⁾, that is to say actions which are aimed at improving the process and the results by adjusting actions to the regulations, to the realities and requirements in the field. This calls for different types of decisions⁽⁸⁾.

The issues can be summed up as follows :

- training and its products are relevant to the guidelines defined by the Government and are satisfactory on the ground;
- the training provided by the ENS complies, to a very large extent, with the guidelines defined by the Government;
- all regulations are not implemented;
- the graduates from the ENS feel that they are well-trained thanks to a type of training that all the respondents and all the users deem useful, relevant and necessary; but they are not entirely satisfactory on the ground.
- The evaluation makes it possible to discover the strong points and the weak points of the training provided between 1982 and 1990 and the solutions they call for.

The strong points of the training of the training programme can be summarised as follows:

- the implementation of the great majority of regulations;
- useful, necessary and relevant training;
- the graduates' satisfaction with their training.

The weak points of the training can be summarised as follows:

- some aspects of the regulations are not implemented (training in computer science and continuing education are not carried out, etc...);
- unfavourable opinions about trainers (inadequacies in the qualification and recruitment criteria, lack of regular attendance at places where teaching practice is carried out, etc.) ;
- inadequacies in the control of the trainers' duties (the submission of the course plans is not systematised, etc...);
- inadequate duration of the training (in F1 AB section);
- inadequacies in the methods of evaluation (lack of objectivity, criteria not well defined, etc...);
- profiles which are imperfectly established for the graduates (the profiles of researcher and innovator, inadequate training in school administration and management, etc.).

However, a comparison of the opinions expressed and processed and, the analysis of the regulations make it possible to make the following observations:

- the points which lead to feelings of satisfaction are related not only to some basic aspects of training (implementation of regulations, useful and relevant training, well-trained products) but above all, these positive impressions are expressed by a high proportion of the people consulted, often over 3/4 of them;
 - On the other hand, those which have been identified as shortcomings would rather be related to specific points and, considering the results, they are
-

mentioned only by a minority even if sometimes the percentages are very important like at the level of the ethical, moral and professional qualities of the products of the E.N.S.

The solutions proposed include :

- the strengthening of training activities like the study of programmes and micro-teaching ;
- asserting the importance of the professional code of ethics and interrelations in the teaching profession;
- the redefining of the entry/completion profiles in order to integrate new activities or disciplines like communication techniques and planning;
- the need to evaluate any training activity carried out like micro-teaching;
- the authorisation to issue university degrees by transforming the ENS into a real specialised faculty;
- the need to redefine the criteria regarding the recruitment of trainers.

Future Prospects

Monitoring is one of the most important steps in any evaluation process. It has been carried out as of July 1994 through internal meetings meant to clarify and implement the recommendations made at the National Seminar held in December 1992 where and theme and at the International Colloquium held in July 1993 which one ?

At the start of the academic year 1993-1994, the duration of the training of trainee teachers who are holders of the Master's degree increased from one(1) year to two(2) years. This important change in the duration of the training entails also a change in the grading of the teachers who are holders of the new CAES (Certificat d'Aptitude à l'Enseignement Secondaire teaching diploma) which will be equivalent to the CAPES (Certificat d'Aptitude Pédagogique à l'Enseignement) Secondaire teaching diploma in the French educational system.

However, the duration of the training of trainee teachers who are holders of the Bachelor's degree (licence) is still one(1) year. The harmonisation of their training with that of the future holders of the CAES should be envisaged. As the regulation stands at present, the teachers who are holders of the Bachelor's degree (licence) and of the CAEM (Certificat d'Aptitude à l'Enseignement Secondaire Moyen) teaching diploma for the holders of a Bachelor's degree can register in second year to prepare the CAES, after having obtained the Master's degree.

One of the most promising perspectives regarding the implementation of the recommendations is related to the introduction of national languages into the educational system. In fact, the main national languages of Senegal are included in the programmes of the Faculty of Art of Cheikh Anta Diop University (Université Cheikh Anta Diop - UCAD). The ENS which recruits holders of the Bachelor's degree and the Master's degree from that faculty could make use of the skills thus acquired.

Taking into account the pedagogic project for the opening of the educational system onto the environment, the ENS would thus be able to start training teachers in national languages who would teach in secondary schools, in Teacher Training Institutions (Ecoles de Formation d'Instituteurs) and take part in the different literacy campaigns in national languages.

In secondary schools, national languages could also be taught and be optional subjects in exams (Diplôme de Fin d'Etudes Moyennes - exam taken in form four(4) - and the "Baccalauréat").

Conclusion

Although this is not shown in its official title, the ENS is an institution which is part of the University of Dakar, with the status of a faculty. Trainers, who are in charge of the supervision and training of future teachers and inspectors, have all been teachers in secondary schools or inspectors in the field for at least five years. The great majority of them continue their professional career at the university. Training at the ENS of Dakar is therefore provided by academics.

However, the inadequacies identified may lead one to think that the training provided is not an academic one. In other words, the present trainers, the majority of whom are academics, continue to provide, for future teachers, training almost entirely based on the transmission of their non-formalised professional know-how.

The future of the education of teachers lies in professionalism. In fact, it must be a matter of training officers who can accomplish the missions which will be entrusted to them; of reflecting on their practices, of proposing and carrying out innovations which are necessary of course so that education should always be in contact with the living culture.

Notes

- 1 See LIENS ENS N°15 1982 : Special Seminar. Available at the ENS library.
- 2 Jean Marie de Ketele (1988 a) wonders : "must institutional evaluation be focused on the entire institution (...)? Can it limit its purpose to one or several sub-systems? (...)" ; in Jean Marie de Ketele (March 1988) ; *Institutional Evaluation : A Few Elements to Define the concept*. Published separately and communicated by the author.
- 3 Several authors consider that evaluation must be directed to decision-making, see especially (JIM. de Ketele 1986, 1988a, 1989; Stufflebeen 1980; Absent 1991; Cadinet 1988a Allal 1991; OECD 1988; Fagari 1994);
- 4 Between 1982 and 1990, the Teacher Training Institution (Ecole Normale Supérieure) trained 1120 secondary-level teachers with the Bachelor's degree and 362 secondary-level teachers, holders of the Master's degree when starting their training at the ENS (corresponding to 1482 secondary-level teachers in total). Over the same period, 637 secondary-level teachers holders of the "Baccalaur_at", 124 assistant-inspectors and 125 inspectors were trained at the institution.
 Thanks to the method which was used, the survey made it possible to have the opinions of 542 secondary-level teachers (in junior and senior secondary schools), 190 secondary-level teachers (in junior secondary schools) and 51 inspectors.
- 5 Efficiency : the productivity of the way the activity is carried out, that is to say the extent to which teachers have been trained in a satisfactory way. Therefore, the notion of effectiveness is related to the general issue of knowing whether the objectives of an activity were achieved whereas the notion of efficiency is limited to the quality of the management and to productivity. "An activity could be effective without being efficient if it achieves its objectives even though it has been badly executed", in the Glossary of educational technology terms, UNESCO : IBEdat (2nd edition) 1987, p.172.
- 6 Regulation : a continuous process aimed at improving operation and results by adjusting actions to objectives and by harmonising each sub-system with the system itself and with each of the other parts (UNESCO : Glossary of educational technology terms, UNESCO: IBEdat 2nd edition, p. 234).
- 7 For the different types of decisions, Cf D. STUFFLEBEAM (1980), The decisions related to planning specify the major changes needed by a programme. This need arises after awareness of the discrepancy between the intentions of the programme and what has been concretely realised, or after awareness of the lack of link between what the programme could become and what it seems to become.
 The decisions related to restructuring specify the means to achieve the goals which are set further to the decision related to planning. They must take into consideration variables such as the method, the content, the organisation, the personnel, the schedule, the equipment and the budget.
 The decisions related to implementation are those involved in the implementation of the plan of action. They come from two sources : (1) the knowledge of the specifications of the procedure and, (2) the sustained knowledge of the link existing between the initial procedure specifications

and the procedures which are really in use. The decisions related to revision... are used to determine the extent to which one achieves the goals and to know whether the activity concerned must be carried on, stopped, broadened or changed drastically.

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Section B
Continuing Education for Teachers

6

In-service Education for Teachers in Ghana

*Elizabeth ADDABOR**

Teaching is a profession that requires expert knowledge and specialised skills. These qualities are acquired through very serious and continuing education. Education is dynamic and it changes with time. The teacher, therefore, needs continuous education to be able to cope with the knowledge explosion that is characteristic of our age. Science and Technology are unveiling new concepts and phenomena everyday. If teaching is a process that facilitates learning then the teacher must be properly equipped to play his role effectively. It is the teacher who guides and shows his pupils the pathways of the various destinations of learning. It is important that Teacher Education must keep changing to suit the needs of the times and the future. The teacher is thus expected to know his subject well and also to maintain high academic standards and it is in-service education that is the most important influence for improving and changing teaching and learning in school.

- In-service education has the following goals as stated by Smith (1969 : 151 - 52).
- To remedy the teacher's deficiencies arising out of defects in his initial teacher training preparation :
- To advance the teacher's skills and pedagogical knowledge required for new teaching roles :
- To advance and update the teacher's knowledge of subject matter ;
- To train the teacher for extra-curricular activities.

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In-service education can also be used to prepare a teacher for mobility within the service to prepare the teaching personnel on promotion.

Types Of Inservice Education For Different Categories Of Teachers In Ghana

In 1951 under the first nationalist government led by Dr Kwame Nkrumah, the Accelerated Development Plan for Education was introduced. This was to provide development of education at all levels. A free - tuition elementary education for children between the ages of 6 and 12 was introduced. The implementation of this plan expanded development in Education. This tremendous expansion in the educational facilities greatly affected the elementary level, where acute shortage of qualified teachers was experienced. It was, therefore, decided to recruit a large number of 'pupil' teachers. These were people with no professional training and weak academic background and who had to be given six-week intensive on-the-job courses to prepare them for teaching at the primary level. The training was done at specially prepared centres called 'Pupil Teacher Centres'. The Curriculum covered English, Arithmetic and Methods (pedagogy).

The 'pupil' teachers were taken through preparation and use of teaching aids and each teacher went home with a bagful of these aids according to the class he taught. At these centres the teachers who were found to be academically weak were dis-recommended from teaching and the very good ones were recommended for entry into Teacher Training Colleges. The six-week course was so intensive that it was able to shape the outlook of these teachers and fashion a philosophy for them so much so that almost all of them ended up professional teachers.

Specialist Training Courses and Subject Organisers

By the mid-sixties the emergency training programmes had phased out because teacher training facilities had expanded through the Ghana Education Trust Colleges. Later the two-year specialist training courses were introduced to supplement the staffing needs of the middle schools. From these teachers were instituted the specialist teachers who came to be attached to the District and Regional Education Offices as 'Subject Organisers'. These specialists moved in a team to schools and cluster of schools and held in-service courses for teachers. The subject specialists handled their subject areas and stressed

methodology and preparation of teaching aids. These in-service courses were very effective and assisted teachers in their problem areas. This was the period that the level of education was at its peak in the country.

The specialist courses in the colleges were phased out by 1976 and by the end of the 1970s most of the subject specialists in the offices had been removed to the classroom as teachers as the result of the mass exodus of teachers from the country to the neighbouring countries in the face of harsh economic conditions. Poor accommodation, infrastructure, lack of equipment and frustration at work added up to drive the teachers out of the classroom and the country. The economic deprivation lowered the teachers prestige in the community. Quality teachers found that they were marketable. They preferred to export their expertise.

Institute of Educational Planning and Administration (IEPA)

In 1974 the Institute of Educational Planning and Administration was established at the University of Cape Coast purposely to give in-service training to Senior Management staff in Education. The Institute started on a very active footing running courses on Management and Financial Administration for Senior Staff and Courses on Guidance and Counselling for teachers but its activities were stifled by the economic problems of the country in the 1970s and early 1980s.

Modular Programme

The economic conditions adversely affected education. In-service education practically came to a halt through many new 'pupil' teachers were employed into the service. As a measure to keep the work going and at the same time train efficient teachers at a cheaper cost, the Post-Middle Modular Programme was introduced in 1982/83 academic year. By this system a serving 'pupil' teachers while teaching underwent a series of in-service training programmes for two consecutive years and finally topped it up with two more years in a regular residential college. The system retained the 'pupils' teachers in the field to fill vacancies created by exodus of trained teachers while these teachers learnt on-the-job to improve their academic and professional competence. These teachers, after training, were posted back to remote areas where they were recruited from. The teachers studied the syllabus in units (Modules) within a specific period of time. They were

released on weekly basis at first then on monthly basis to meet in clusters to work their modules under the supervision of District Training Officers.

Vacation courses were also organised for the modular students in selected teacher training colleges. The courses covered 12 weeks during the year.

At the end of the second year a national promotion examination was conducted by the Teacher Education Division and the successful candidates joined the regular students in the third year. Those who failed to make the grade the second time had their appointment as pupil teachers terminated.

The programme helped to give in-service training to a large number of pupil teachers, thus improving upon their academic and professional standards. It also generated the spirit of self tuition in these teachers.

However it was proved that the pass rate of the modular students was lower than the regular students as shown in Table 6.1

Table 6.1.: Comparison of Regular and Modular Four-year Certificate 'A' Results 1986

N°	Name of College	Modular		Regular		Percentages	
		N° presented	N° successful	N° presented	N° successful	Modular	Regular
1	Akrokerri	82	38	82	38	46	46
2	Foso	74	44	75	60	59	80
3	Abetifi	33	18	63	44	30	70
4	St. Francis	36	16	95	74	44	78
5	Peki	36	9	108	64	25	60
6	Amedzofe	28	7	91	56	25	63
7	Kibi	61	23	72	39	38	54
8	Ha	37	17	73	45	46	73
9	St. Louis	10	8	80	51	0	64
10	Komenda	33	15	48	35	45	73

Source: Compiled by author.

It was generally observed that the post-middle candidates were unsuitable for the modular course because of their low academic background which subsequently made it difficult for them to read and comprehend the modules effectively.

In-service Under The Reforms

By the end of 1980s the modular programme also phased out. In 1987 the new education reforms were introduced. Ghana had crossed the difficult days and the new education reforms were introduced in 1988. This meant changes in the curriculum and content of Education, new era for 'in-service'.

The reforms are Donor-sponsored and they are to increase access to education and retention in school. The reforms are also gender sensitive as they seek to increase access to education for girls. They are also meant to give quality education.

Courses have been mounted for all categories of teachers to introduce the next curriculum to them. These courses covered the different subject areas on the curriculum. The courses were held on district basis.

The innovation in the present in-service programme is the training of core trainers for each district. These core trainers are from all levels of education and they conduct the in-service courses at the District levels. They act as resource persons for the District.

Table 6.2. Upgrading Courses for Teachers

Year	Three-Year Post-secondary		Four-Year Post-middle	
	No. present	No. successful	No. present	No. successful
1985/86	1,236	846	3,471	1,773
1986/87	924	664	2,793	738
1987/88	1,100	791	3,806	2,589
1988/89	1,385	1,019	2,884	1,734
1989/90	1,946	1,316	2,893	1,885

Source: Compiled by author.

Up-grading Courses for Failed/referred Teachers

In the system there had always been trained but uncertificated teachers. These teachers were never promoted and so were frustrated. Table 6.2 illustrates this point.

Formerly, these teachers had their work inspected after some years of teaching and certificates awarded to them on recommendation. However, since 1987, a 6 week course is held for this category of teachers on residential basis. The curriculum covers English, Mathematics, Education and General paper. There are 4 centres for the whole country. This is to assist them to raise their background education. The course is very intensive and after the six weeks, a common examination is held for the candidates and those who qualify are awarded certificates. The upgrading courses are organised by the Ghana Education Service and the teacher's organisation- Ghana National Association of Teachers. These courses have helped many confidence in themselves to perform better in the classroom. From 1990 to 1993, 7,086 such teachers were retrained through in-service courses and 5,931 were able to obtain certificates.

New Trends What Remains to be Done and How ?

At present (1994) discussions are under way to bring the in-service training closer to the school. The appointment of new circuit supervisors who are to visit the schools in their circuits to assist the teachers re-enforces this view. A circuit supervisor is in charge of between 20 to 30 schools in his circuit depending on distances. It is also felt that there should be closer link between pre-service and in-service.

In Ghana, there are various interested groups involved in in-service programmes. These include the Ministry of Education, the Ghana Education Service, Ghana National Association of Teachers (GNAT), the University of Cape Coast, the Subject Association, etc.

Each of these institutions has its own programmes and very often the same people are invited to attend the programmes. It might even be that those who need the courses are not invited. On 14 August 1994, there was a meeting of all related bodies in teacher education, teachers and donors at the University of Cape Coast to discuss the new direction to in-service teacher training. The consensus was that it should be tailored to satisfy the needs of the teacher and pre-service and in-service should inter-relate. A national in-service committee is to be

formed comprising teachers, administrators, representatives from colleges of education and other bodies to co-ordinate in-service activities.

The new focus is also on strengthening in-school supervision which demands a well trained head. Headteacher training is, therefore, receiving serious attention. In 1992 the Commonwealth Secretariat/UNESCO/SIDA sponsored the writing of a manual on training support of headteachers. This manual dealt with school management. Ghana took part in writing this manual but the level was found to be above the primary school heads. A simpler manual has been prepared in-country under the sponsorship of UNICEF and ODA and is being used now to train primary school headmasters. The first batch of the heads have started their training at district Headquarters. The manual is self tuition and the Heads can study on their own or form study circles to use it.

Conclusion

Openings should be given to teachers to improve themselves. There is a lot ahead to be done and it all needs dedication and commitment. Education must emphasise positive change rather than continuity and as people normally resist change this slows down the process of innovations in education. However, with determination the expected results will be yielded in the end. The training of the teacher must be on-going because the effect of the teacher's work is beyond bounds.

7

Continuing Education for Teachers: Problems, Progress and Prospects

*Pierrette KONE**

After giving a brief, general and simple definition of continuing education through its roles, this chapter will consider the public for whom this education is intended and the people who provide it. Then, teachers' expectations and needs and, the difficulties and constraints created by continuing education will be examined. Finally, attention will be given to a few elements which appear as being the conditions for improving continuing education and to the preconditions which are necessary for its realisation. As an illustration, we will study the case of Senegal.

Definition, Roles and Functions

Continuing education means the education of teachers while in service. Generally, it consists of extending the initial education acquired in a technical-vocational institution (Teacher Training Institution). Its role is to raise the standard of the teachers who are already in service, but have not received systematic teacher training and to monitor teachers through their daily practice with a view to improving their teaching skills, to retraining them, to maintaining their skills and to supervising them.

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It has three types of functions :

- supervisions
- evaluation and remediation
- information and learning

The supervision function is similar to an assistance and support relationship. The evaluation and remediation function comes close to the supervision function because it is carried out through the latter (the correct implementation of programmes, official instructions, prescribed methodologies etc...). In addition, research is carried out, with the teacher or without him/her, to find solutions to the particular difficulties noted in the latter's class.

The information and learning function, in situation and according to the development of the teacher's work and/or his context, provides step by step training which extends the experience acquired in initial education, develops the knowledge of teaching/learning techniques, gives information and introduces teachers to making innovations. Continuing education may replace initial education where the latter is lacking.

Group Targeted Strategies

Continuing Education is intended for two types of teachers:

- Those who received technical-vocational education before being in service:
- Those who are recruited and have started to work according to their academic standard in order to fill the gap.

There are varied types of intervention which are adapted to these people according to the needs. Teachers' demand for assistance is very high after the initial reluctance due to the fact that the supervision function was perceived as monitoring and control. This demand is focused on the subjects which are taught, the methodologies of the exercises used in the learning process and, on the use of teaching techniques and aids.

In most cases, the premises used for education are the ones where teaching is carried out. Some slots in timetable are arranged to this effect in schools where teachers, are organised in pedagogic teams according to subjects.

According to circumstances teachers are encouraged to participate in practice activities within their domain or other domains, and those based on reflection, which are concentrated in time: short pedagogic

seminars, workshops. In that case, they are then freed from their duties.

Training Structures

There are two types. The ones like teachers, associations, NGOs, etc. are autonomous. The others are sometimes integrated into groups of training institutions, sometimes they are agencies of the Ministry of National Education.

In Senegal, the "Continuing Education Structure" (*Structure de Formation Continué*), was set up in 1984 by Ministerial order and financed through a Franco-Senegalese convention. Prior to that period, with the support provided by the United Nations Development Programme (UNDP) and under the supervision of UNESCO, the Higher Pedagogic Centre (*Centre Pédagogique Supérieur*), which was in charge of training, in two years, secondary-level teachers recruited among qualified primary-level teachers, became the Teacher Training Institution of Dakar in 1967. Its missions include the organisation of retraining courses for teachers and the Continuing Education of teachers.

For primary-level teachers, initial education carried out in training institutions has been existing since the establishment of primary schools. The teacher training institution was rapidly centred on the initial education of secondary-level teachers which became compulsory for all prospective teachers. But due to the existing needs, teachers without technical-vocational education are still being recruited. Therefore, the setting up of the continuing Education Structure was due to the need to overcome the difficulties faced by teachers who start teaching whatever the path which has led them to teaching. The main objective is therefore to improve teachers' professional performance.

To this effect, there was need for a place where teachers needs could be expressed, where knowledge and practices could be questioned, experience and ideas exchanged and innovations experimented. These concerns justify the existence of a specialised structure.

The goal of the Continuing Education Structure is to overcome teachers' isolation, to create dynamics of reflection on education, to renew the contents and methodologies regarding the following subjects: French, History and Geography, Physical Sciences and Mathe-

matics with priority given to the latter and to French which is the teaching medium and the official language.

Today, 'the continuing education structure' has asserted itself in its roles. It has been developed over the years and covers all regions in the country. This structure assists teachers in their duties and provides support for inspectors and headmasters in their work.

Now, the Franco-Senegalese Human Resources Development Programme (Programme de Développement des Ressources Humaines - P.D.R.H.) is in charge of the continuing education of teachers. It supervises secondary-level teachers in three subjects: French, Mathematics and Physical Sciences. It aims to develop action common to these three subjects and specific to each one of them. The activities of this programme are aimed at creating 'better coherence of the training process', at promoting link between primary and secondary schools, among others. Significant material, financial and human means were mobilised for the realisation of that programme.

In 1992, a distance education programme was developed with the University of Quebec and supported by the French Agency for Cultural and Technical Co-operation (Agence de Coopération Culturelle et Technique Française). The objective was to provide training in places where teachers are working.

French teachers serving in secondary schools and having received no initial technical-vocational education were the first ones who benefited from that experimental training. The programme was then extended to secondary-level teachers to improve their skills in the same discipline.

This is therefore an example of a type of restructuring of continuing education. Whatever the ways in which it is designed and the means available, continuing education remains the privileged means of maintaining and up-dating teachers' skills and knowledge permanently and therefore of ensuring the quality of education. The relationship it implies assists the teacher in his/her daily action and is one of the factors which are likely to retain teachers in their profession.

Trainers

According to systems, trainers who are assigned to carry out the continuing education of teachers are called either educational advisers or inspectors. This may vary according to countries and to education

levels (primary or secondary levels). Sometimes, both functions are carried out by single person, sometimes, they are separate people and the tasks entrusted to them are different. Whatever the denominations, all systems work towards giving priority to the supervision and support function opposed to the control function.

This does not mean that the control function is abandoned. It is carried out and regarded in different ways, especially with regard to the supervision and evaluation of teachers.

Although the role of educational adviser is becoming widespread, the control function is still very significant in interventions. But the effectiveness of interventions overshadows quickly the possible reluctance.

Content of the Training Programme

The interventions by trainers assigned to carry out continuing education aim mainly to improve educational practices and information on innovations. This is reflected by the activities that are carried out. These are mainly activities giving information (presentation on the scientific contents of curricula) and activities giving examples in the form of workshops and pedagogic observations : preparation, performance, critical analysis of a given educational activity, of approaches, of a strategy, a type of exercise, etc.

Meetings focused on activities and visits carried out in classrooms are the most common modes of intervention. The basic organisation is the pedagogic committee. Work is carried out in group or team. Interventions are focused on issues as varied as the knowledge of the content of subjects, the application of a methodology, the documents necessary for the implementation of the programme, the preparation of courses, etc. Evaluation is the subject which is not often dealt with, and is regarded as the most difficult according to teachers, especially in French, as the one raising more problems for teachers as well as for trainers.

At the end of each meeting or visit, the trainer fills a form which is to summarise observations, to structure the summary and to access the group or the teacher concerned. Another type of intervention aims to up-date scientific knowledge. All teachers can benefit from it. The continuing education structure also meets the particular needs of teachers in order to solve particular problems.

All interventions contribute to in-depth reflection on the practices, in situation, to finding joint solutions to problems that are encountered. Every training unit designs its own programme taking into consideration the major points of the national programme developed by educational advisers or inspectors. Continuing education is aimed at bringing corrections; it is centred on the teacher's effectiveness.

Finally, special mention must be made of professional associations which cater to the continuing education of teachers.

Expectations And Needs

During the interventions, teachers express their expectations and needs and make requests. They expect this training to improve their skills so that they can provide education without getting worried and be promoted. Teachers often express concern about the development of their career: the preparations of courses, their promotion, the shift to management positions after having served for five years sometimes take precedence over their pedagogic concerns.

Teachers wish to have constant pedagogic support in the preparation of courses. They ask for scientific and pedagogic documents (there is a lack of documents which are not renewed) as well as for manuals and pedagogic guidelines which would help them in their daily work.

Difficulties and Constraints

One cannot claim to be in a position to explain exhaustively the improvement of teachers' skills and their retraining. Citing few dominant features will make it possible to focus reflection on finding solutions to a few major difficulties. First and foremost, general progress is noted in the development of continuing education at primary and secondary school levels and there is a marked tendency to harmonise that training, at all levels of education.

The case of university lecturers must be dealt with separately due to the specific nature of the training of teachers in higher education, to their duties and to the lack of initial technical-vocational education regarding this education level.

Therefore, the 'continuing education' of teachers in higher education is carried out as on-the-job training through compulsory research to which they are submitted. It is an opportunity for teachers to up-date their knowledge and to follow up developments in their subjects. The interrelation between them and their colleagues, through scientific

meetings and exchange of documents, also contributes to their education.

But quite often, institutional constraints impede the freedom of movement, the freedom to maintain relationship and to make exchanges. In addition, the existing financial means are not mainly allocated to sectors which promote the scientific and human development of this type of training the mission of which is to develop knowledge and promote research.

In order to improve their skills, university lecturers need to make exchanges freely with the scientific community, to have appropriate documents and communication material, to receive teacher training adapted to the situations they are faced with in their teaching work. Co-operation in terms of continuing education would contribute to many constraints.

Difficulties arise mainly from :

- i. The discontinuity between initial education and continuing education at the structural level, of supervisors, programmes, in short, due to the lack of a global education policy taking into consideration both types of training simultaneously
- ii. The disparity between the educational standards and the recruitment level of trainers.
- iii. The heterogeneousness of training structures and profiles which is reflected on the link between the two types of education and strengthens the distinction between scientific training and technical-vocational education, theory and practice. These words often have special connotations. The former is rather derogatory, the latter is sometimes used as a refuge in the face of the difficulty in perceiving the scientific foundations of educational prescriptions. Then the shift occurs imperceptibly in order to replace the teaching of scientific pedagogy by the teaching of one's own recipes.
- iv. The dysfunctioning between the contents of the initial education and practical realities, due to the lack of correlation in the designing and the programmes of initial education and continuing education. This dysfunctioning has a considerable impact on the effectiveness of teachers. The temptation to be dogmatic lies in wait for the trainer without means in the face of the realities on the ground.
- v. The shortcomings of research in the field: (methodological uncertainties, reliability of the findings, the ability for the findings to be generalised, etc.) and of its applications (hurried, mechanical and transferred without precaution). It is necessary to conduct patient and in-depth reflection. It would make it possible to avoid a good deal of experimentation and errors which have detrimental effects on education.

Practical Solutions

In order to improve the training of teachers at all levels, training must be designed, taking into consideration successively all levels of edu-

cation and their articulations. The specific nature of disciplines must also be taken into account. It has implications on the training profiles, the contents, the duration and on the costs of training.

It is also necessary to raise the recruitment level and the training standards of teachers especially in primary and secondary education. The recruitment based on the diploma obtained or on the minimal knowledge of the contents of subjects does not give enough information on the profile of the candidates seeking admission. In addition, it is necessary to harmonise the training standard of teachers within each category.

The teaching profession must not be regarded as the last resort for job-seekers, for those who failed at university, for diploma holders who are difficult to advise on what subjects to specialise in and, for those facing job uncertainty. This has a negative effect on long-term motivation for training as well as for the profession.

The creation of academic streams for teaching at university level would reduce the teaching work load in training institutions for the benefit of technical-vocational education which is more adapted to the complex functions of an effective teacher in our time.

It is necessary to train continuing-education trainers in the special fields of their duties with requirements equivalent to those of trainers in initial education. In the short term, it is important to reduce gradually the recruitment of teachers without technical-vocational education.

For education to be effective, for good quality interventions and for stability in the profession, the problems facing teachers in their classrooms require education skills (how to teach and what to teach) which must be provided for teachers and which enable them to overcome problems like the programming and the preparation of courses, the assessment of learners, the management of groups, etc.

One must therefore act on the motivation of teachers. While claiming constant support, although aware of the benefit of continuing education, teachers find it difficult to take part spontaneously in the activities proposed to them because that education has no repercussions on their salaries and promotion.

Finally, it is of the utmost importance that research in initial education as well as in continuing education be encouraged and promoted. It makes it possible to internalise education. Because teachers review,

by themselves, the scientific approach to knowledge and know-how which they did not perhaps appropriate when they were under the guidance of the trainer.

In addition, the fact of using, in training, the knowledge drawn from research will give to future teachers the opportunity of interaction with their (future) field of exercise. Both a strategy for education and a source for resolving problems, research may bring about fruitful confrontation of theory with practice. It will develop the creativity of teachers, thus providing them with the means of improving their practices and making them discover reasons for making progress.

8

DIFOP (Togo) Experience in the Continuing Education of Teachers

*S.A.. GNON-KONDE**
*Zigan ALIHONOU***

Continuing education is today an essential element of the global policy for the training of teachers. This continuing improvement is made necessary either by the rapid obsolescence of the knowledge acquired in the initial training centres or by the low level of recruitment in the profession. Thus, in the search for more adapted and effective educational means, Togo developed, with the 1975 reform, a systematic policy for training teachers.

Consequently, the education of teachers appeared as an essential priority at a time when Togo set itself, among other development goals, the development of human resources. This Chapter tackles successively the frameworks and structures for continuing education, the fields concerned, the training strategies, the results obtained and the perspectives.

The Frameworks and Structures for Continuing Education

The systematic improvement of Primary-school teachers' skills resulted from our Educational Reform. In fact, since September 1975, the educational system in Togo was entirely reformed in terms purposes and goals, in its contents and methods as well as in its structure which

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comprises the following four levels of it: pre-school and primary education

- the first one : pre-school and primary education (3 years + 6 years)
- the second two : 1st cycle in secondary education (4 years)
- the third three : 2nd cycle in secondary education (form 5 to upper sixth form) (3 years)
- the Fourth four : higher education (after the "Baccalaureat").

This reform advocated that 'a post-school and continuing educational system should enable each citizen to carry on with his/her own training at little costs' and, that 'the professional qualification of teachers and supervisors should be the major concern for the authorities of the system'.

This resulted in the setting up of structures for initial training and continuing education, namely the National Institute

of Education (Institut National des Sciences de l'Education) related to the University of Benin (Lomé), the Teacher Training Institution (Ecole Normale Supérieure Atakpamé), the Training Institution for Early-childhood Teachers (Ecole Normale des Institutrices des Jardins d'enfants Kpalimé), the Training Institutions for Primary school Teachers (Ecoles Normales d'Instituteurs) at Nots and Kara, the Department of Continuing Education, Action and Pedagogic Research (DIFOP), in charge, more specially, of the in-service improvement of teachers' skills among others.

The main missions entrusted to the Department of Continuing Education, Action and Pedagogic Research (DIFOP); a central body for distance education, are:

- pedagogic research and the permanent adjustment of educational methods and programmes to the realities and needs of the country :
- the designing, production and dissemination of teaching material which is adapted to the programme of the Newly Reformed School in Togo :
- the training of supervisors in National Education (inspectors) in primary and secondary education, educational advisors, teachers in Training Institutions for Primary-school Teachers) :
- the retraining and the improvement of the skills of teachers on-the-job through various pedagogic publications (especially through the pedagogic magazine "Le Lien" [The Link], through courses, seminars, correspondence courses, radio and T.V. programmes :
- the learning of national languages at school :
- the adjustment of the school to the different Togolese environments (through pre-school activities aimed at integrating the student into his/her environment).

In order to fulfil the duties entrusted to it, DIFOP was structured into the following six(6) divisions.

1. Pedagogic Programmes, Methods and Research.
3. Pre-technical-Vocational Training (the Training of Trainers).
4. Production.
5. Extracurricular Activities.
6. Pedagogic Documentation and Information.

On the whole, DIFOP is actually an institution specialised in continuing education, at the service of the other educational departments. It is a framework for training which, apart from its own resources, is related to the University of Benin as regards issues relating to the deepening of academic knowledge. It also caters on inspectors, educational advisors and headmasters.

Fields

Continuing education covers virtually all fields of educational life: the disciplines taught and the teaching methods used, the management of the institutions, the educational innovations (population, environment, school and school environment, etc). Some disciplines are particularly privileged, especially national languages, French, English and Mathematics.

Strategies

Considering the high percentage of primary school teachers who were insufficiently trained when the reform program was launched in 1975, this level of education was given special attention by the authorities of the educational system. Teachers were categorised in order to provide further training for each target-population either within the framework of participating education or that of distance education.

1) The participating education of teachers in Togo

With the 1975 reform, change has henceforth been one of the foremost preoccupations of who? For teachers, the ideal thing is no longer to have good academic knowledge only but professional effectiveness must also be, given prominence that is to say to adapt them to the new programmes and to the new centres of interest of students.

Thus, for teachers to have access to a common style of action, tailor-made courses within the framework of seminars and courses was retained. But it is not only a matter of enabling teachers to meet by chance among volunteers or according to affinities or even less

according to themes that are unknown to students they take care of. For educational action to have a minimum of coherence and effectiveness, it was important to organise systematically educational life and change in a centralised framework.

In this perspective, DIFOP is the Centre for the co-ordination of participating continuing education activities. To that effect, a training programme is developed each year in conjunction with the Departments of education based on the training needs identified by survey. The duration of training sessions varies from one week to three months.

In general, courses and seminars are intended to achieve specific goals :

- enable participants to deepen their own teaching knowledge;
- reflect on different educational techniques in support of educational reform projects ;
- provide teachers with new educational techniques.

In that perspective, many operations were carried out. We shall discuss three :

1) Courses for improving teachers' skills in mathematics and science within the framework of the World Bank Project with the following objectives :

- improve the quality of the teaching of mathematics and science in order to enable students from the second level either to apply their knowledge to the problems of daily life or to carry on with their studies successfully at the third level.
- acquiring good knowledge of a global methodological approach in which demonstration and practical applications occupy an important place;
- experimenting new programmes relative to this global approach.

The training strategy place more emphasis on practical education than aspects theoretical - therefore, seminars were focused on :

- the production of teaching-learning material in science from local resources;
- the handling of scientific equipment;
- the reflection on the new methods in science education.

2) Seminars on curricula development techniques were developed with the following broad objectives: Content, and methods of the Seminars. To carry out a detailed analysis of the requirements of the new Educational Policy in Togo in order to draw the broad lines for developing appropriate curricula. It is intended specifically to:

- describe the goals and objectives of the educational policy in Togo ;
- develop, from these goals and objectives, short- and long-term objectives for each stage in education at the Primary School Level ;
- use the clearly developed objectives as a basis for choosing judiciously the content, materials and other means likely to contribute to the realisation, of the goals and objectives of education at the Primary Level;
- basic concepts relating to curriculum:
- objectives of a curriculum:
- choice of content;
- choice of teaching material;
- implementation of a curriculum;
- evaluation of a curriculum;
- designing of the broad lines of a curriculum;
- characteristics of a team working on the curriculum.

In order to achieve the objectives set for the seminar, the following methods were used :

- An introductory presentation which consisted of arousing the participants' interest in the subject of discussion
- Discussions with a view to examining thoroughly many points of view on the subject of the debate.
- Work in small groups in order to carry out further reflection and develop curriculum projects.

3) Seminars on the training of headmasters in the role of educational supervisor. The objective of the seminars was to provide Headmasters with the capability to educate themselves with a view to being at ease in their role of educational supervisor.

There were not only presentations for participants.

They were taught how to draw concretely, from documents made available to them, the elements needed to fulfil their duties.

The UNDP-UNESCO Distance In-Service Teacher Education in Togo

When the Reform was launched in September 1975, 40 percent of the teachers at the First Level (in pre-school and primary education) did not go beyond form 2 in general education and could only take the primary leaving certificate exam as diploma. On the same date, the higher qualified ones (nearly 40 percent) had only the (Brevet d'Etudes du Premier Cycle (BEPC) - equivalent to the 'O' level), 1 percent had the "Baccalauréat" certificate and hardly 10 percent of the teachers had received pre-professional initial training. For the Reform to be imple-

mented correctly it was crucial to improve the teachers' standard of general education first and the level of their professional performance.

In fact, the lack of initial training of many teachers had contributed to a considerable drop in the quality of education.

Faced with this situation, the Government of Togo had decided to develop a better policy for the in-service education of teachers with the financial support provided by UNDP, UNESCO and the French Co-operation.

The objectives of distance education were:

- to improve the teachers' standard of general knowledge;
- to improve their standard of teaching knowledge;
- to prepare them so that they can take exams and competitive professional examinations.

The strategies consisted of co-ordinating different methods of training to improve teachers' skills and, of assigning specific roles to individual partner institutions :

- DIFOP was in charge of harmonising distance education and monitoring as a whole.
- The Department of First Level Education (pre-school and primary education) and Inspectors, assisted by Educational Advisors, were responsible for supervising learners on the ground.
- The Teacher Training Institutions should supplement this distance education intensively during 3 months.

The following means were used to achieve the afore mentioned objectives:

- pedagogic meetings bringing together learners and supervised by Headmasters, Educational Advisors and Inspectors;
- individual work on pedagogic topics by those concerned
- markers of exercises focused on pedagogic topics;
- markers of exercises centralised at the level of the inspectorates;
- radio programmes in support of courses ;
- pedagogic articles published in "Le Lien" (The Link) magazine.

Distance education is the exclusive responsibility of DIFOP. It is an integrated multimedia education based on Correspondence Courses, the Pedagogic Magazine and Radio Programmes.

For example, things which cannot be included in the Correspondence Courses are dealt with in the form of an article in '*Le Lien*' (The Link) and of a radio programme intended for learners according to the different target categories.

Teachers who attend distance education were divided into four target groups:

Level 1 : Teachers' aides who did not attend the last form in primary education and the first two forms in secondary education (forms 1 and 2);

Level 2 : Teachers' aides who attended form 3 or above in secondary education;

Level 3 : Assistant-teachers' aides and trainee assistant-teachers;

Level 4 : Assistant-teachers and trainee teachers (holders of the "Brevet d'Etudes du Premier Cycle - BEPC i.e., equivalent to the "O" level).

The Correspondence Courses

Every course is a module adapted to the environment and to the standard of the learner. It includes a series of small, gradual and self-correcting exercises followed by a synthetic homework.

Each course deals with an important notion of the discipline concerned. These notions are those which are taught in the classes in primary education. They are presented gradually in an ascending order of difficulty. Notions, which often crop up in the tests of professional exams, are dealt with.

The method adopted is the following:

A concrete fact (for instance a text, as regards French), which contains the notion considered (for example the Noun Group - NG), is used. The learner is brought to observe this fact through specific questions and phrase construction. A rule is drawn from that observation.

Subsequently, practical exercises called practical work are proposed with correct versions given at the end of the course. Their learners must refer to that correct version to know whether answers are accurate and they must do no more exercise as long as the correct answer to the preceding exercise is not found. At the end of the course, there is a homework which should be done and sent to the inspectorate for correction.

The courses are therefore very practical. They are meant to bring the learner to have better knowledge of some notions and therefore to teach them in a better way.

Courses are studied individually first, then collectively (in a group), with supervision ensured by headmasters. Thus, the learners have

exercise books to take notes. Courses are designed and developed by committees set up by Ministerial order.

These Committees include executives from the Department of Continuing Education, Action and Pedagogic Research (DIFOP), inspectors in primary-level education, teachers from teacher training institutions for primary school teachers (Ecoles Normales d'Instituteurs), teachers from the National Institute of Education (INSE) and teachers in third-level education (2nd cycle in secondary education). According to the learner's standard, the number of courses varies from six(6) to nine(9) per year for each learner.

***Le Lien* : The Pedagogic Magazine**

It is published in six (6) issues per year by DIFOP. It contains various headings which include general education, general teaching methods, special teaching methods, items preparing learners for professional exams, letters to the editor, etc...

Within the framework of distance education, the *Lien* reprints, develops and enriches some notions which are dealt with in correspondence courses. Learners must subscribe to this Magazine.

Specific training is also provided for teachers' supervisors to enable them to fulfil their supervision and pedagogic contribution duties.

Radio Programmes

Devised as support to the correspondence courses and to the pedagogic magazine, radio programmes develop and enrich some notions dealt with in the courses especially in Psycho/pedagogy and in French. They also deal with notions of General Education. They include two broadcasts, 'Teacher's Time' (l'Heure du Maître) and 'School and us' (l'Ecole et Nous).

The broadcasts related to "Teacher's Time" are meant to be a practical aid for teachers by especially giving them advice regarding the teaching methods for the main disciplines. In general education, the programmes deal with subjects related to various fields: history and geography of Africa and the World, civic education, educational reform, economics, zoology, Third-World issues, etc.

The programmes related to 'School and Us' make parents, pupils and the general public aware of the problems related to School and Education ex: discipline at school, school drop-outs, school failure, schooling for the promotion of the community, etc.

Designed by specialised committees, the radio programmes are broadcast weekly by Lomé Radio and Kara Radio.

DIFOP organise seminars and courses annually for headmasters, inspectors and educational advisers.

In addition to their usual activities, the inspectors' main duties are to:

- choose teachers who must attend courses;
- ensure the distribution of courses;
- organise monthly sessions for correcting homeworks, educational days and conferences. They are also in charge of monitoring learners regularly. They must be assisted by educational advisers in the execution of their duties.

As for headmasters, they are requested to supervise teachers closely. They must also organise and make contributions at study sessions in group on correspondence courses and organise debates on radio programmes. The educational articles of the *Lien* are also analysed under their supervision. Some of them must correct learners' homeworks in the correction committees set up by inspectors.

Finally, DIFOP monitors learners through meetings between learners, those who design courses at DIFOP, markers and supervisors. Some explain their respective difficulties (the level of courses, the method used, the necessary material, the duration of learning and the drafting of homeworks, the problems specific to teachers, the broadcasting time, the technical problems related to reception, etc). These sessions are the most enriching for some people because they are free from any dogmatic verbalism.

The Results Obtained and Future Prospects

The Tailor-made Programmes

Courses and seminars are not always similarly viewed by all partners in education due to divergent interests. In fact, modernising education often causes controversy; it happened in Togo with the problems of innovation in mathematics.

It must be added also that 'teachers' unrest' greatly slows down efficient participation in training sessions. The desire to improve one's skills is slowed down by the economic and financial crisis which undermines the possibilities of individual promotion.

The institutional relations sometimes create co-ordination problems. This is worsened by the lack of harmonisation with the different partners: the University teachers who have the academic competence,

the trainers at DIFOP oriented towards innovation, the inspectors and educational advisers attached to their experience acquired on the ground. In addition to all these courses and seminars are expensive.

Distance Education

The Positive Results

At the internal level, the follow-up carried out by the executives of DIFOP, the reports by inspectors, educational advisers and headmasters, the testimony by learners themselves and even pupils, constitute a kind of empirical evaluation which is significant. All these reports and testimonies have reinforced our commitment to the distance education of first/level teachers (in pre-school and primary education) in our country.

At the external level, two types of evaluation were carried out: on the one hand, at the international level, the National Institute of Education has been mandated to evaluate distance education; on the other hand, in accordance with the usual procedure of UNESCO, successive tripartite evaluations (Government, donors and executing agency) were carried out for the different projects on the 'improvement of the skills of teachers on-the-job'. All the parties involved reached the same conclusions:

- distance education using several media yields satisfactory results at all levels, from political decision-makers to learners in their classrooms, including technicians in charge of the exercise.
- the rates of success in professional exams for teachers attending distance education regularly varies from 60-90 percent. Headmasters and educational advisers concede that, through their supervision activities, distance education enabled them to improve their general education and professional standards.

The category of teachers' aides has virtually disappeared from the national education system in Togo due to distance education. The result of, the Ministry of National Education's general evaluation of teachers in that category was satisfactory.

Stumbling Blocks

The afore mentioned success in distance education was not without numerous difficulties. Let us mention just the most important ones.

At the Educational level

Due to the relatively low educational standard and the heterogeneity of the duration of the training of teachers, the contents of some

correspondence courses are regarded as too difficult or too easy to assimilate for some learners of the same standard. Of course many learners think that courses are adapted to their standard and to their needs but some do not.

The ideal thing would have been to design courses tailored to suit individual requirements and corresponding to the real educational and professional standard of each teacher. This cannot be realised considering the high number of teachers. Nevertheless, it seems to be recommended to design correspondence courses halfway between courses of Level II and those of Level III for Assistant-Teachers' Aides who are not holders of the (BEPC) 'Brevet d'Etudes du Premier Cycle' equivalent to the 'O' level.

Learning Conditions

The regular surveys carried out by DIFOP show that the majority of teachers attend courses quite regularly. But some weaknesses in the study of courses has also been noted of few teachers. In this regard, many reasons were put forward: failure to understand some notions, lack of time, professional occupations, illnesses, isolation, etc.

DIFOP looks for and advocates solutions in order to overcome the difficulties encountered during the course of the project.

Technical Constraints

A few breakdowns could have impeded the timetable for the distribution of courses. Likewise, the conditions of reception of radio broadcasts are far from being satisfactory.

Funding

Distance education, as undertaken and carried through in Togo, is costly. In fact, these results were obtained thanks to important financial means and human resources. At the financial level, the different educational projects of the World Bank, of UNDP-UNESCO and assistance from French Co-operation attracted almost 10 billion F CFA to Togo.

From this global amount, at least 2 billion CFA F were spent on distance education for equipment (printing and broadcasting devices for printed and sound materials, the purchase of vehicles for distributing courses), for the organisation of sessions to design courses, for courses and seminars on the training of supervisors, for monitoring

learners, for crash courses in teacher training institutions (for primary school teachers), for missions carried out by specialists, for study and information tours, etc. In order to cut costs and to motivate learners, a modest contribution was requested from the latter.

Human Resources

This distance education mobilised significant human resources (school administrators, educational supervisors, resident specialists, consultants, missionaries, technicians, skilled workers and junior staff for providing support). It is impossible to quantify the amount of human energy spent in this exercise.

Socio-political Issues

The greatest difficulties related to 'Distance Education' in our country arose from the socio-political unrest. The serious unexpected changes and insecurity have brought distance education activities to a standstill since the start of the academic year in October 1992 which coincided virtually with the end of the educational projects: the designing sessions, the course distribution and follow-up tours, the courses for the training of educational supervisors, etc. were organised in very difficult conditions. Some activities were purely and simply cancelled.

Future Prospects

As discussed earlier in this chapter, continuing education is an essential element these days, considering the rapid changes in all fields. In fact, innovations, which formerly required several generations to be made, are carried out today in less than a decade. Human beings are faced with an absolutely new physical, intellectual and moral universe. They become strangers in their own environment and do no longer know what to cling to. 'They feel disconcerted. Truth is changed into dogma which, in turn, becomes a prejudice. What was formerly regarded as effectiveness becomes a horrible routine. Permanent change is a new dimension, a new order of value, even a 'supreme value'.

Continuing education is therefore an element that cannot be by-passed. But how to organise it in favour of teachers themselves, pupils and of our educational systems and the overall development project of our society?

It is desirable that all actions and activities related to the education of teachers should be based on an integrated global strategy at the level

of training structures and centres, of profiles, of programmes and means to be implemented. The present lack of co-ordination and the breakdown into individual operations are highly detrimental to teachers, pupils and to our States who dissipate thus their energy and modest means.

This global strategy should use techniques for the self-education of teachers based on their real needs and the determination to meet the latter by resorting to the available possibilities: written and sound materials, resource persons, etc.

In order to yield the results expected for the teacher and the system, this self-education should be backed by a continuing education policy organised at the level of the Government with programmes adapted to each category of learners, to each teacher in other words, according to his/her real needs and not to the needs assumed by the managers of the educational systems.

This continuing education should provide a system of incentives and motivation for the teacher: the award of grading points with real effect on the pay-slip, exemption from part of some professional exams considering the results obtained in continuing education, fellowships or grants for training courses to be proposed, etc.

But this continuing education, even if organised as it is presently the case in most countries, should be the continuation of the initial education. The links between the two types of training are obvious and must be analysed and capitalised on.

They form the two sides of the same reality which is the acquisition of a certain amount of knowledge, know-how and learning-to-be (*savoir-être*) by the teacher. Thus, continuing education and initial education structures and centres should harmonise their techniques, their programmes and support one another: initial education can be reviewed and corrected based on the problems posed by continuing education. The latter should necessarily be linked to the former.

Considering the present aspirations of our societies, new themes are necessarily appropriate for continuing education: environment education, population education, civic education and democracy education.

In the education of teachers, special attention should be given to the problems regarding research in education particularly those of action-research or operational or applied research. It will not be a question of making of teachers specialist-researchers, but of creating of them: a

critical turn of mind in order to bring them to understand publications on research in education and consider them critically if possible.

Finally, teachers must be encouraged to optimise their daily practices. In fact, education should play a central role in educational innovation and in the dissemination of these innovations through continuing education activities.

At the turn of the 20th Century, the socio-political, economic, scientific and technological changes make it imperative for teachers of today, adopt entirely new behaviours, faced with the acquisition of knowledge and its transmission on the one hand and, especially with the pupil and the whole society on the other hand.

Section C
Education and Training for
Special Categories of Teachers

9

Specialised Teacher Education: Lessons From Past Experiences

*N'Golo COULIBALY**

The purpose of this chapter is to give a general overview of the training policy for specialist teachers in Mali. It includes the survey of the following:

- structures for the training of specialist teachers;
- conditions of access to these training structures;
- difficulties;
- structures for the education of persons with special needs
- the conditions of specialist teachers;
- perspectives.

Institutional Framework

The educational system in Mali is organised in such a way that the staff serving at the level of the second cycle Basic Education are specialist teachers called Secondary-level Teachers (Maîtres du Second Cycle - MSC).

In fact, basic education in Mali includes a first cycle covering a period of 6 years where general education teachers called Primary-level Teachers (Maîtres du Premier Cycle - MPC) are serving and, a second cycle covering a period of 3 years where secondary-level Teachers (MSC) conduct education.

As regards pre-school education and education for persons with special needs, one can find early-childhood teachers and specialist

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teachers. The conditions of specialist teachers will be examined later on.

In the general secondary education, technical education and vocational education, there are secondary-level teachers. They are all specialised in different subjects.

Higher education is carried out by teachers in higher education some of whom are trained in Mali, at the Higher Institute for Training and Applied Research (Institut Supérieur de Formation et de Recherche Appliquée - ISFRA).

Here, the focus will be on secondary-level teachers in basic education, on specialist teachers (early-childhood education and education for persons with special needs) and in the process, some aspects related to teachers in general secondary education,

in technical education and vocational education and to teachers in higher education will be examined in order to illustrate current concerns about the training policy for specialist teachers in Mali. For instance, the case of foreign languages and technical education teachers.

The educational reform which was carried out in Mali in 1962 led to the setting up of structures for the training of specialist teachers which are the teacher training institutions (Ecoles Normales Secondaires, Ecole Normale Supérieure), the National Institute for Art, the National Institute for Sports (l'Institut National des Sports), the early-childhood teachers' training centre (le Centre de Formation d'Éducateurs préscolaires), the Higher Institute for Training and Applied Research (l'Institut Supérieur de Formation et de Recherche Appliquée).

It must be noted that these structures were set up gradually. The mission of the teacher training institutions (Ecoles Normales Secondaires) is to train secondary-level teachers (MSC) who are specialists in the second cycle in basic education. The National Institute for Art trains specialist teachers in fields like music, painting in the second cycle in basic education and in general secondary education. The National Institute for Sports trains teachers in Physical Education among others.

The Teacher Training Institution (Ecole Normale Supérieure) trains teachers in general secondary education in various special fields to serve in secondary schools.

Conditions of Access

The conditions of access to structures for the training of teachers underwent some changes. Prior to 1985, admission to Teacher Training Institutions (Ecoles Normales Secondaires - ENSEC) in first year was accepted for holders of the 'O' level (Diplôme d'Etudes Fondamentales - DEF, obtained after successful completion of 9 years of schooling) or equivalent diplomas for a four-year training cycle and holders of the 'baccalauréat' (equivalent to the British 'A' level) or equivalent diplomas can proceed to the third year. From 1985 to 1989, the Teacher Training Institutions (ENSEC) recruited holders of the 'O' level (DEF) or equivalent diplomas who had to take entrance exams for a training cycle covering four (4) years.

Over the same period, holders of the 'Baccalauréat' certificate or equivalent diplomas could still seek admission to the ENSEC, in the third year, without taking entrance exams.

However, since 1989, the Teacher Training Institutions (ENSEC) have been recruiting only holders of the 'Baccalauréat' certificate or equivalent diplomas who have to take entrance exams for admission to the first year for a training cycle covering 2 years. As regards the (Art and Sports) institutes, holders of the 'O' level (DEF) can still seek admission by sitting the entrance exams, for a training cycle covering four (4) years. The National Institute for Art recruits holders of the 'DEF' (equivalent to the 'O' level).

In pre-school education, there is only one institution in Mali : the Early-Childhood Teacher Training Institution (Ecole de Formation des Educateurs pré-scolaires). This institution provides training covering two years for qualification as early-childhood teachers.

For admission to the Early-Childhood Teacher Training Institution, holders of the 'DEF' ('O' level) and candidates with three-year job experience at least have to take entrance exams.

As for the Teacher Training Institution (ENSUP), holders of the 'Baccalauréat' certificate or equivalent diplomas can seek admission. The secondary-level Teachers (Maîtres du Second Cycle) with five (5) years job experience can also seek admission but have to take entrance exams.

The different changes in the conditions of admission to the Teacher Training Institutions (ENSEC) resulted from efforts to improve the quality of education. Knowledge of the special field, good-quality pedagogic

techniques and professional commitment, among others, contribute to making of the teacher an effective actor in the educational system.

In Teacher Training Institutions (Ecoles Normales Secondaires), subjects of the special fields are the following:

- Mathematics - Physics - Technology (MPT)
- Mathematics - Chemistry - Technology (MCT)
- Mathematics - Physics - Chemistry (MPC)
- Chemistry - Biology (CB)
- Natural Science - Agriculture - Stockbreeding - Technology (SNAET)
- Languages - Drawing - Music (LDM)
- Arts - History - Geography (LHG)
- Natural Science - Physics - Chemistry (SNPC)
- Physical Education and Sports (E.P.S.)

The Teacher Training Institution (ENSUP) trains specialists within the Education and Research Departments (Départements d'Enseignement et de Recherche - DER). Table 9.1 shows the number of teachers trained in each special field from 1985 to 1993.

Table 9.1. Number of Teachers Trained in Special Fields (1985 to 1993)

Year of completion	1985			1986			1987			1988			1989		
	Boys	Girls	T	B	G	T	B	G	T	B	G	T	B	G	T
M.P.T	92	12	104	110	9	119	64	15	79	-	-	-	-	-	-
M.P.C.T	-	-	-	-	-	-	-	-	-	48	21	69	74	26	100
M.P.C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C.B	82	0	82	102	0	102	90	3	93	24	4	28	-	-	-
C.N.A.E.T	-	-	-	-	-	-	-	-	-	98	0	98	48	4	52
S.N.P.C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
L.D.N	74	0	74	42	0	42	76	0	76	45	0	45	27	1	28
Languages	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
L.H.G	86	0	86	54	0	54	149	2	151	109	4	113	48	4	52
E.P.S	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	334	12	346	298	9	307	379	20	399	324	29	253	197	35	232

**Table 9.2. Number of Teachers Trained in Special Fields
(1990 to 1993)**

Year of completion	1990			1991			1992			1993			Total		
	Boys	Girls	T	B	G	T	B	G	T	B	G	T	B	G	T
M.P.T	-	-	-	-	-	-	-	-	-	-	-	-	266	36	302
M.P.C.T	40	21	61	46	16	62	51	14	65	29	8	37	288	106	394
M.P.C	-	-	-	12	0	12	10	0	10	2	0	2	24	0	24
C.B	-	-	-	-	-	-	-	-	-	-	-	-	298	7	305
C.N.A.E.T	26	5	31	18	12	30	34	7	41	2	2	4	226	30	256
S.N.P.C	-	-	-	18	1	19	14	1	15	5	0	5	37	2	39
L.D.N	34	6	40	28	1	29	21	2	23	4	1	5	351	11	362
Languages	-	-	-	5	1	6	13	0	13	4	0	4	22	1	23
L.H.G	51	8	59	21	5	26	63	7	70	11	1	12	642	31	673
E.P.S	-	-	-	13	0	13	26	2	28	14	0	14	53	2	55
Total	151	40	191	211	36	247	232	33	265	71	12	83	2207	226	2433

Source: *Compiled by author.*

M.P.T. : Mathematics-Physics-Technology

M.P.C.T. : Mathematics-Physics-Chemistry-Technology

M.P.C. : Mathematics-Physics-Chemistry

C.B. : Chemistry-Biology

S.N.A.E.T: Natural Science-Agriculture-Stockbreeding-Technology

L.D.M. : Languages-Drawing-Music

L.H.G. : Arts-History-Geography

S.N.P.C. : Natural Science-Physics-Chemistry

E.P.S. : Physical Education and Sports

Difficulties

Various difficulties are related to the training of specialist teachers. They range from the conditions of admission to training structures to the training itself of the future specialist teachers.

The teachers' standard is one of the important factors in the qualitative operation of an educational system.

The socio economic context of the country has an effect on the training policy for teachers. The International Monetary Fund (IMF) World

Bank proposed economic recovery measures make the recruitment of teachers by the civil service very limited. This situation had led to a loss of interest in the teaching profession. Attached in annex shows the changes in the number of teachers. For example, as regards Teacher Training Institutions (Ecoles Normales Secondaires), after having implemented, for four (4) years, a system of entrance exam to be taken by holders of the 'Baccalauréat' certificate seeking admission to the first year for a two-year training cycle, a sharp drop in the number of trainee teachers was noted. The number of trainee teachers dropped from 215 in 1988 to 20 in 1992!

The number of teacher training institutions (Ecoles Normales Secondaires) has been reduced from four (4) in 1988 to one presently. With regard to the location of training structures, some of them were in areas where the number of demonstration schools was not enough to meet the demands for the practical training of trainee teachers.

The policy which led to the recruitment of the holders of the 'Baccalauréat' certificate in order to improve the quality of education did not prove to be conclusive. In fact, the holders of the 'Baccalauréat' certificate are not very receptive to the advice and criticisms made by headmasters who have not been trained like them as specialist teachers from the 'baccalauréat' certificate level. They show great professional instability by always seeking other job opportunities in order to leave the teaching profession. In the field of technical and vocational education, it is difficult to retain specialist teachers permanently in the teaching profession. Once trained, these specialists leave the teaching profession most of the time to work in other sectors for economic reasons, motivation and job satisfaction.

As regards the specialisation in foreign languages, the need to reconsider the practice in this area must also be underlined. In fact, the changes which occurred in the former Soviet Union in recent years caused a drop in the number of the Malian students sent to these countries. The changes in the co-operation policy led to very high fees in the universities of these countries which used to receive hundreds of Malian students.

This explains why many students are no longer interested in learning the Russian language at secondary school. Therefore, the teachers specialised in Russian as a foreign language are today under-employed. The foreign languages education and Research

Departments (DER de langues étrangères) must re-adjust their training policies in terms of quality and relevance.

In the light of the training policy for specialist teachers in Mali, today, one must ask oneself relevant questions about the obvious loss of interest faced by training institutions for specialist teachers.

The need to design a more attractive policy for access to the training of specialist teachers is a must. The national and international contexts demand that a coherent policy be designed for the training of specialist teachers. Education For All would not be realised unless these essential actors, who are teachers, are taken into consideration.

In the World Declaration on Education for All, it is stipulated that all children, all adolescents and all adults should have access to basic education. In that perspective, Mali has developed a national plan of education for all which aims, among others, to:

- reactivate the basic education system;
- broaden the basis of the educational system;
- reduce the inequities between sexes and the disparities between the regions;
- adapt training to employment: this national plan strengthens further the importance that Mali has always attached to pre-school education and to the education of persons with special needs.

Educating Persons with Special Needs

Article 3 of the World Declaration on Education for All stipulates that: [‘The educational needs of the handicapped call for special attention. It is necessary to take steps to ensure, within the framework of the educational system itself, equal access to education for all categories of the handicapped people’].

In terms of social justice and equity, this excerpt is a very important element in the educational policy of any country. In Mali, charity organisations, encouraged by government authorities, have contributed to strengthening the Government action in education through the establishment of seven institutions for the education of persons with special needs.

The Malian Association of the Blind (l’Union Malienne des Aveugles - UMAV) has two(2) institutes to its credit:

1. the Institute of the Young Blind of Bamako (IJA)
2. the Regional Institute of the Young Blind of Gao

The Malian Association for the Social Promotion of the Physically Handicapped Persons (AMPHP) has contributed to the setting up of three(3) centres for the education of persons with special needs:

1. the Physically Handicapped Rehabilitation Centre (CRHP) of Bamako;
2. the Physically Handicapped Rehabilitation Centre of Ségou (Capital of the Region of Ségou)
3. the Physically Handicapped Rehabilitation Centre of Gao (Capital of the Region of Gao).

The Malian Association for the struggle against the Child's Mental Deficiency (AMALDEME) has a Medico-Psycho-Educational Centre (CMPE).

The Malian Association for the Promotion of the Deaf and the Deaf-mute (AMPSOM) has an Experimental Centre for the young deaf and deaf-mute.

All these institutions aim to provide education for the different types of handicapped persons in order to enable them to become

- supervise handicapped children;
- promote their integration into the ordinary educational system;
- make the handicapped child self-reliant.

In addition to the necessary material, qualified personnel is needed to accomplish the missions of these institutions.

The Conditions of Specialist Teachers

In the institutions for the education of persons with special needs, training is carried out by specialist teachers.

It must be specified that in Mali 'on-the-job training' in these institutions has contributed to the training of specialist personnel. Training courses, seminars and training workshops also contributed to training this category of teachers. The contribution by international co-operation is also an important element in the different approaches to the training of specialist teachers: the Medico-Psycho-Educational Centre gets specialists sent from Europe who train the Malian personnel.

Fellowships and grants are also awarded within the framework of international co-operation.

Nowadays, fourteen(14) specialist teachers have benefited from fellowships for training courses. Nine have benefited from grants, five(5) among them for the education of the young blind and four(4) for the education of the mentally deficient children. With regard to the super-

vision of the deaf and deaf-mute, three(3) teachers received 'on-the-job training'. Training courses outside the country covered the following special fields:

- Braille-shorthand;
- the Vocational Training Certificate (Certificat d'Aptitude Professionnelle - C.A.P.) for training
- the Special Methods for the Visually Handicapped;
- the Vocational Training Certificate in Knitting;
- speech therapy;
- occupational therapy;
- teaching techniques for the mentally handicapped;
- the social integration of the mentally handicapped;
- psychology.

Those who benefited from training abroad specialised in different fields at the levels of the Postgraduate Diploma (Diplôme d'Etudes Approfondies - DEA, taken before the Ph D), of the Master's Degree and the Ph D: Education, Special Methods for the Visually handicapped, Science, Mathematics, Music (Braille) etc...

In Mali, the lack of appropriate training structures for specialist teachers is a handicap to the development of the capacity to supervise the existing institutions. There is also the problem of professional stability as regards some categories of specialist teachers. Some of them who are not handicapped but have been trained to supervise handicapped persons often leave the field of education for persons with special needs and go to work in other sectors for economic reasons, motivation or job satisfaction.

Due to these problems, the number of institutions for the education of persons with special needs and of specialist teachers is quite limited in Mali whereas there are still great needs to be covered. In Mali, national will and international solidarity through international co-operation have contributed to making of education for persons with special needs a reality. However, there still remains a lot to be done for efficient coverage of the needs in all the regions in the country.

Future Prospects

The perspectives are going to be focused on the training policy for specialist teachers. The experience gained in the training of specialist teachers for nearly a few decades must necessarily lead to extra efforts

in terms of quality and contribution to the socio economic, cultural, scientific, technical and technological progress in the different West African countries. In this perspective, some questions need thorough consideration as regards the training policy for specialist teachers :

- Is it not time to give priority to the designing of an attractive policy for the teaching profession facing the loss of interest in the profession which has been noted here and there?
- Did programmes for the training of specialist teachers (at all levels) contribute to developing sufficiently a professional authority among teachers?

Programmes should strengthen the professional code of ethics and commitment among teachers. The society must in turn create the best conditions for teachers to blossom professionally and socially.

The training of specialist teachers must be rooted in the different cultures of the sub-region in order to increase the societies' level of control of the reality, taken in the broadest sense. This approach must be a point of reflection for future actions regarding the training of specialist teachers.

The questioning of the paradigms in their special fields must also be given attention with regard to the training of specialist teachers. Repeating the same elements in some fields through generations may prove to be ineffective and does not contribute much to the knowledge and the control of the educational environment. The specialist teachers must be the agents of change in their special fields. One should not content oneself with a process which consists solely of consuming (assimilating) the productions of other cultures.

Training must combine the consumption of knowledge with the production of knowledge. The working of such a combination would inevitably lead to the rooting of training in the different cultures of the sub-region while ensuring fruitful exchanges with other cultures. In a broader perspective for sub-regional integration, the teachers specialised in languages should have an important role to play. African languages must find a space for development in the education and research Departments (*Départements d'Enseignement et de Recherche - DER*), in institutes or faculties. In any case, the training of specialist teachers is a significant element in the search for excellence in the educational systems.

As regards education for persons with special needs, the setting up of a structure for the training of specialist teachers is a priority in the

Malian context today. A project for the establishment of a centre for the training of specialist teachers is being considered with partners in development. The existence of such a structure is necessary so that the institutions for the education of persons with special needs can broaden their operation capability and meet the increasing needs.

This structure will make it possible not only for the personnel in service to receive good-quality polyvalent training in terms of training courses and retraining, but it will also contribute to the training of new teachers.

Conclusions

Education is both a right and an investment. Therefore, it must be given great attention by the decision-makers of the countries in the sub-region in order to ensure economic take-off and significant improvement in the quality of life. The training of specialist teachers at all levels must fit into the dynamics of qualitative change and improvement in the quality of life.

Education for persons with special needs must be developed further in order to achieve more justice and equity in the society. Education for all must not result in exclusion. It must respond to the basic educational needs of all. Specialist teachers must benefit from an environment which 'valorises' them and they themselves must basically contribute to enhancing the teaching profession. Is not sound and relevant technical-vocational education an important asset in the defence of the professional status of the authors concerned?

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10

Specialised Training for Specialist Teachers

Joseph I.KINYUA*

Most African states attained independence in the late 1950's and early 1960s and since then there were certainly much expectations and aspirations which nations in general and individuals in particular were anxious to make real. At that time, and drawing from the colonial experience, education appeared to be the best means through which those dreams and aspirations could be fulfilled.

In this regard specific educational conferences were held and commissions set up to help direct education so that it would serve as a vehicle for rapid national development as well as for individual fulfilment. The idea was to reap, within the shortest time possible, the full benefits of the newly acquired independence. In Kenya there have been three major commissions to articulate and give direction to the post-independence education trends and programmes.

The National Committee on Educational Objectives and Policies (1976)

The National Committee on Educational Objectives and Policies was set up in 1975 and presented its report in 1976. This committee, chaired by the then Permanent Secretary for Education, Mr. Peter Gachathi, was instructed to define a new set of educational goals for the second decade of independence and to design a specific programme of action for realising those goals. Some of its major recommendations and which are pertinent to the subject of discussion were :

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- A new pattern of education referred to as the 9-4-3 pattern, suggesting 9 years of basic education (primary and junior secondary), 4 years of senior secondary (forms 3-6), and 3 years of university education leading to the first Bachelor's degree.
- Basic education curriculum was to include some prevocational studies in woodwork, masonry, business education (typing, book-keeping and commerce) to facilitate self-employment for those whose 9th year of education would be terminal. Payment of fees to be removed for the remaining classes (I-IV). Payment of fees had already been abolished for the other classes as follows:

Class V fees to be removed in 1978

Class VI fees to be removed in 1979

Class VII & VIII fees to be removed in 1980

This move would help attain the goal of basic education for all within the shortest time possible. Indeed this paid handsome dividends as by 1988 Kenya had been able to enrol 98% of its school-going age children into primary schools.

- Higher and more specialised levels of education should be directly related to the nation's developmental needs and the beneficiaries of this type of education be required to meet the larger portion of its costs. The latter proposal was in view of the increased financial burden imposed on the government by the declaration of free and universal primary education.
- In order to encourage specialisation in education, the government made education free after Ordinary Level school certificate to enable more students who were academically qualified to proceed to forms 5 and 6 and to university. This arrangement lasted for 10 years after independence.
- For those going overseas for further and higher education, the Government established a central selection board with representatives from each province to ensure that those going for studies had the right qualifications and that there was equitable distribution of available scholarships and bursaries. This policy is still very keenly being observed at all levels of training in public institutions.

Report of the Presidential Working Party on Second University in Kenya (1981)

The report of the Presidential Working Party on Second University in Kenya (1981) is known as the Mackay Report because it was chaired by C.B. Mackay, a Canadian Professor from the University of New Brunswick. This Commission was necessitated by the University of Nairobi existed, having attained its full University status in 1970 after its detachment from the University of East Africa.

The Report led to the establishment of Moi University, in 1984, which has a strong bias towards practical-cum-developmental courses like forestry, agriculture and water development. This move quickly opened the gates for the establishment of other full-fledged universities-Kenyatta University (1985) Egerton University (1987) and Jomo Kenyatta University of Agriculture and Technology (1993).

The Report also recommended a new system of education, the 8-4-4 system which entails primary education, 4 years of secondary education and 4 years of university education (for the first Bachelor's degree). This recommendation saw the scrapping of the "A" level (form 5 and 6) component of the secondary school section.

The Mackay Report also put strong emphasis on the broad and vocationalised aspect of the curriculum at every level. This provision was intended to produce persons who can use the skills learnt at school to earn a living, on a self-employed bases; at the end of any of the educational cycles.

Report of the Presidential Working Party on Education and Manpower Training for the Next Decade and Beyond (1988)

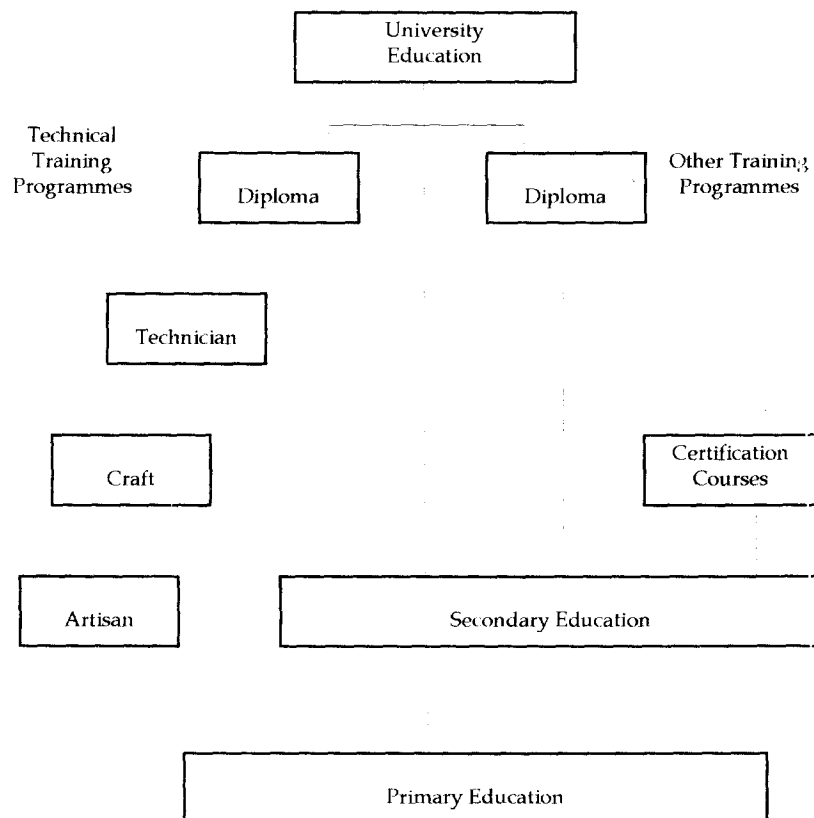
This Report, also known as the Kamunge Report as it was chaired by James Mwangi Kamunge, one time Director of Education, was aimed at evaluating the 8-4-4 system of education and to look critically into the practical requirements of education in the next decade and beyond.

The Report welcomed the 8-4-4 system of education and went on to propose ways and means of sustaining it. To sustain the vocationalised component of the educational system, additional and appropriate physical facilities, equipment, teaching and learning materials, as well as qualified teachers were required. These prerequisites were not easy to acquire in the face of escalating inflation, yet Kenya had to prepare to sustain a projected population of 35 million people by the year 2000 - up from 8.6 million at independence - 14 million of whom would be in need of employment.

To help solve the problem the Report underlined the concept of *COST-SHARING* between the Government, and communities, parents and beneficiaries of education and training. The formation of Parents/Teachers Associations (PTA's) to work alongside Boards of Governors in supporting government efforts in pro-

viding physical facilities in schools gathered momentum during this period.

Diagram 10.1 : Linkages Between Education and Other Training Programmes



Another important recommendation of this Report was that environmental education studies be introduced at every level of education for purposes of proper conservation, enhancement and productivity of the environment. This was more considered urgent given that about 75% of Kenya's land is arid or semi-arid and that the majority of primary and secondary school leavers live and work in rural the areas.

The Kamunge Report also proposed certain linkages between education and training programmes to cater for some of its recommendations. These linkages are shown in the diagram 10.1.

Specialisation

Within the above scenario, and in pursuit of the aspirations mentioned, specialisation became a significant feature, particularly in the 1970's, as far as teacher-education was concerned, two levels of specialisation became apparent.

In 1972 there were 5,000 Pre-Primary Institutions, 300,000 enrolment and 6,000 teachers. In 1987 there were 12,182 Pre-Primary Institutions, 662,045 enrolment and 16,551 teachers.

Although pre-primary education has expanded rapidly over the years there is still need for more schools. The enrolment as at 1987 was for example, only about 27% of the total number of children who could have enrolled (between 3-5 years) in then existing schools. The other critical problem is the lack of trained teachers for this area. As at 1987 only 35% of the teachers were trained. However, efforts are being made, at every level, to intensify the training of existing teachers. Universities should also come up with Bachelor-level degree programmes in this area.

Primary Teacher Education Programmes

Primary teacher education programmes are being offered in the twenty one public primary teacher's colleges, and the five primary teacher's colleges sponsored by religious organisations. The rapid increase in primary school enrolment, from 891,553 at independence to a projected 7 millions by the year 2000 necessitated the expansion of primary teacher education programmes. The population of Primary School teachers tremendously from 22,727 at independence to 142,807 by 1986.

The government has made great strides towards the elimination of untrained teachers. Currently only the marginal areas of the country are experiencing the problem of lack of trained teachers. These areas are, however, being given attention to ensure that they get adequate trained teachers.

Middle-level training programmes such as those at these programmes are basically in the sciences. The arts-based programmes were phased out in the late 1980s. Examples of programmes being offered at this

level are those at Kenya Science Teacher's College and Kagumo Teacher's College.

Vocational training in technical training institutions: Training at this level has expanded quite rapidly since independence. By 1964 only 2066 students were enrolled in youth polytechnics, technical training institutes, Harambee (self-help) institutes of technology, national polytechnics and other skill-training institutions in the public and private sectors. By 1975, however, the number had risen to 8,025 and by 1986 to 21,093.

By 1987 there were 545 youth polytechnics established by local communities and supported by the Ministry of Culture and Social Services. They offered artisan course : carpentry, masonry, and tailoring to primary school leavers.

There were also 17 Harambee institutes of technology started on self-help basis by 1987. There are now receiving government support through funding, provision of teachers, professional guidance, and curriculum development by the Kenya Institute of Education. These Institutes offer craft course in mechanical and electrical engineering, business studies, agriculture, building construction, among others. The course are examined by the Kenya National Examinations Council.

Government-maintained technical schools rapidly increased from 4 at independence to 18 in 1982. They provide a four-year course in post-primary academic and technical education.

In addition to the above, there are also 3 national polytechnics training middle and higher level technical manpower.

The shortage of specialised teachers in technical and vocational education is of great concern at the moment. Despite the enthusiasm in starting and maintaining technical and vocational institutions, no serious efforts have been made to improve the support services necessary for the success of the programmes. This should be a priority area in future.

University Teacher Training Programmes

Bachelor or education courses are being offered in the 5 Kenyan public and four private universities in Kenya. These universities are currently producing an adequate number of teachers in the humanities but there is still a shortage in sciences and vocational programmes.

This is the reason why the Government has phased out arts - based teacher training programmes in the middle-level colleges but retained the science-based courses.

While our universities have done commendably well in their academic programmes, the pedagogical aspect of their training of teachers has been the subject of diverse reactions. Inputs into the training of graduate teachers have been insufficient. Besides, the post-graduate programmes in the universities, which constitute about 10% of the total university programmes, have not been effectively co-ordinated to cater for the national needs for which specialists are required. The tendency has been to leave the post-graduate training to the initiative of the individual student and the lecturers.

A significant attempt was made in the 1980s to offer post-graduate programmes at Master Level to Diploma and primary college tutors in order to make them specialists in teachers' training. It was used behind the programme which sadly came to an end in 1988. This was certainly a step in the right direction and would have yielded good dividends, particularly if it was extended to the technical - vocational component of teacher training as well.

Another significant development as far as university education is concerned was the setting up of a Commission for Higher Education in 1985 to co-ordinate and harmonise university education. This Commission is being strengthened to enable it address the issues of quality and relevance in all the universities particularly in regard to training of teachers.

Special Teacher Training Programmes

Special teacher training programmes for the handicapped are coordinated by the Kenya Institute of Special Education (KISE). This Institute was established in 1985 to expand manpower training in all areas of disability. It currently offers a two-year diploma course for qualified serving teachers who have interest in special education. It also conducts 3 month's in-service courses for about 80 teachers every two years.

Despite the fact that several Non-Governmental and donor agencies like DANIDA and ACTION AID have given a lot of support to special education, there is still a great demand for teachers in this area. It is a pity that up to 94% of disabled persons in Kenya cannot get places in

special education institutions due to the inadequate manpower capacity to cater for them.

It is however encouraging, that the Kenya Institute of Special Education has been expanded remarkably over the last 5 years and has recently benefited from a Presidential directive to expand it further. The expansion would also focus on new dimensions like production of teaching aids, assessment of disability in children and development of programmes for independent living.

The absence of specific programmes in our public universities to train teachers in this area, is a major constraint that should be addressed in future.

Subject specialisation is available in the universities and middle-level colleges where student teachers choose among arts, science or technical courses. They also choose from individual subjects themselves.

This type of specialisation is conspicuously absent in the primary teachers colleges where student teachers learn to teach all the subjects in the primary schools curriculum. However, over the last few years, there has been some pressure from educational experts to bring about some measure of specialisation in this area; especially now that shortage of primary school teachers is no longer a critical constraint in except in the economically disadvantaged areas.

The Kamunge Report has emphasised the need to strengthen vocational education in primary schools. If subjects like agriculture, business education, art, craft and home science are to gain ground in primary schools, then teachers of those subjects must be trained as a matter of urgency.

The Report has also strongly recommended that the practice of allocating a teacher to teach all the subjects in one class, even those they were weak in at school, particularly at the Upper primary levels be stopped. This will certainly go a long way in raising the quality of teaching in primary schools.

The Training Pattern at the Kenya Science Teachers' College

The Kenya Science Teachers' College (KSTC) is a mid level teacher training college specialising in science KSTC was established in 1966 with, among others, the objective of easing the shortage of secondary school science teachers. The establishment of the college was a joint

effort of the Kenyan and Swedish Governments for the first ten years of its operation.

At the moment students are drawn from the ex-fourth form school leavers with a minimum of C- average and C- in the two major subjects that they will study at the College. The two subjects are chosen from mathematics physics, chemistry, biology, metal-work, wood-work and drawing and design.

In addition to the two major subjects KSTC offers the following courses to every student during the first year in order to make them good ALL-ROUND teachers :

- Communication skills in English
- Environmental Science Education
- Library Science Education
- Workshop Course - to enable them make their own simple teaching aids.

Physical Education is offered to all students throughout the three - year course. This is in consideration of the fact that the physical health of the teacher trainees as well as that of the students they will teach, significantly contributes to their mental health as well.

A course in education is also offered through the three-year programme. This course equips the teacher trainees with the pedagogy, the philosophy, the methodology and practical skills of imparting the content attained in all the subjects studied. Students are also given some managerial and administrative skills which include typing and accounting to enable them perform efficiently when they become heads of institutions.

For the first two years the College concentrates on strengthening the mastery of her academic content in the main subject areas taught. The first term of the third year is used to polish up the students' teaching skills through micro and peer teaching to prepare them for the six-month long teaching practice, after which they are ready to start their teaching career.

The charts below illustrate the relationship time allocated to various components of the teacher training programme at KSTC during the three years a student is at the College. There is great emphasis on the academic subjects. This is in view of the fact that the teacher trainees are usually form four leavers and that they will teach up to the same level after graduation. There is need therefore to strengthen their mastery of the subject content.

Education is also given some priority since pedagogical considerations are just as important as the knowledge of the subject matter. The other subjects are allocated less time but are important in producing an all-round teacher.

Appendix (b) brings out the emphasis attached to teaching practice and appendix (c) the emphasis we attach to practical *vis-à-vis* theory. KSTC graduates are well - known for their practical approach in their teaching assignments.

Financing of KSTC programmes has been a problem over the last five years due to the bottlenecks of the structural adjustment programmes imposed on the country by World bank and IMF. As a result the unit cost of training each student has risen to approximately 1,000 US dollars per year whereas what is available is 400 us dollars. KSTC has tried to overcome this problem through "cost-sharing" but the constraint is still felt and is threatening to water down our standards. A national task force is currently studying the situation carefully.

Since its inception KSTC has produced a total of 5652 science teachers. These teachers have made a remarkable impact in the teaching of science in the country due to their (sense of commitment) and practical approach in handling their subjects.

Conclusions and Recommendations

It is evident that Kenya has made great strides towards the promotion of education for all and it is likely that by the year 2000 Kenya will be considerably closer to that goal. The country's efforts have been carefully articulated in the commissions analysed above and serious implementation measures have been put in place.

Kenya has also put great emphasis on specialised training and this is considered essential at all levels. Science and technology form the pillars of development in any nation. Education programmes cannot afford to ignore the scientific and technological needs of society, particularly in the developing countries, where levels of poverty are pretty high.

The recommendations of the various commission and the will-power to vocationalize education at all levels are, alone, not enough to produce the required results unless pragmatic steps are taken to systematically develop every positive proposal. Proper research should be conducted to determine the 'right' types of technologies -

modern or indigenous - that suit the Kenyan economy, even before implementation becomes an issue.

Kenya, like other developing countries, will need to seriously address itself to the problem of specialised manpower to sustain the specialised component of teacher training programmes. Inadequate facilities and funds present a major constraint in this area. If this is not done, other efforts may not yield the required dividends, as observed elsewhere : in Tanzania, for example, by 1971 it was envisaged that of the 93 public secondary schools, 39 were to become agricultural, 31 commercial, 14 technical and 9 home economics schools. This was indeed a bright idea. But when problems of manpower and materials raised their ugly heads, not much was achieved.

The public universities, co-ordinated by the commission for Higher Education, will need to step up their efforts in mounting specialised teacher training programmes for trainers of teachers and provide careful guidance in post-graduate studies. The multiplier effects of this move would then be felt across the board.

Currently trainers of teachers are people who have gained experience in schools and have shown some interest in the training of teachers. Although the Teachers' Service Commission has been conscientious in promoting and posting trainers of teachers, there is an urgent need to. The crisis in this area has been so sharp, that it has been suggested that crash programmes be mounted to service this aspect of training them regularly.

Finally BREDA should continue organising seminars to together educationists from across Africa to brainstorm and offer constructive suggestions. This would certainly raise the quality of education and life in general throughout Africa.

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Training for the Technical Teacher in Kenya

*Amos MUTHUI**

Technical Education in Kenya as a whole has had a relatively brief history. Indeed as late as 1960, the only provision of technical education rested in Nairobi. Technical school and another eight institutions called technical high schools. At a higher level and then just emerging was the Royal Technical College of East Africa, which later gave rise to the current University of Nairobi. The Nairobi Technical School, which also converted to become the present Kenya Polytechnic had a curriculum tailored to provide the backup for the industrial sector, and provide the technical expertise for specific industries. In time, it has widened and diversified its field of training while the technical high schools of the earlier years continued to provide the basics of technical knowledge, particularly in woodwork, metal work and auto mechanics. It must be noted that students in these high schools had also to prepare for the school certificate examination in the fourth year of high school, thus the technical training was a relatively small component of the school work. Some technical education at the lower level was also offered at other smaller establishments, namely the Christian industrial training institutes and also the national youth training centres. A relative higher form of training in general engineering and business skills was provided at the Royal Technical College. Technical education did not therefore gain any recognition as such, as the country continued to dwell heavily on classical education of the 3 'Rs' mainly the auto subjects in secondary

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education. The following three commissions were set up after independence from the British: 1965 - Kenya Education Report; 1976 - UCEOIP; 1988 - The Kamunge Report (Future Focus on Education). The reports were not complementary especially when considering technical teachers education. The need to provide for the technical education had been reasonably well articulated but there was no co-ordination in the implementation process. The 1965 Education Commission saw the technical education as simply a means to 'reach national economic goals' which was, according to the report, almost impossible to plan for because the future trend, the scope and nature of economic activities and related needs for manpower could not be forecast. The report goes on to give a rather blunt recommendation that as of the time 'there is no case in the foreseeable future for the establishment of a new engineering college for giving training to a technician or senior technician level'.

With this background very little indeed could be said, if any, about the need for training of the technical teacher in the early 1960s, and the country continued to rely almost exclusively on expatriate instructors. Emphasis still continued to be placed on basic manual skills for the African. Even as late as 1971, the inclusion of industrial arts in education in secondary school was at a token level, treating the subject as any other in the curriculum, not much for helping to mould a career out of the subject.

Initial Efforts to Provide Technical Teacher Education

Technical teacher education made its debut peripherally in 1966. The inception of the Kenya Science Teachers College, an ambitious project supported by the Swedish Government through the Swedish International Development Agency (SIDA), incorporated the training of industrial arts teachers. This category of training, in spite of the significance, was only like a side venture, as the major thrust at this institution was for the provision of training of science teachers, leaving only 12 to 16 per cent for the industrial art teachers. But even though small in number, the excellent preparation the group received soon made a significant contribution to technical teacher education as a start. Technical education in the East African region, received a major boost around 1967, when a team of UNESCO experts assisted the Uganda Technical College Staff with scholarships for training abroad. Whereas no statistics have been found it is understood that the pro-

gramme directly or indirectly benefited Kenya and the rest of the East African region. At the same time in the late 1960s, the government was making some effort to develop a technical teacher training programme at the Kenya Polytechnic in Nairobi. This came up in a rather haphazard manner and never really achieved much as an integrated programme. It became more like an in house training where teachers were being immersed into short pedagogical training sessions. The most significant study of the need for the comprehensive technical education was in 1971, when a team of Canadian experts, through the Canadian International Development Agency made a case for the development of the Kenya Technical Teachers College in Nairobi, to cater comprehensively for the training of teachers of technical and commercial studies. This Kenya/Canada joint project was to be implemented initially by the University of New Brunswick for the Canadian International Development Agency. The institution came into being in the mid-1970s using rented facilities while the buildings were being completed on a 35 hectares site on the outskirts of Nairobi. It has continued to provide the technical and business teachers ever since. Table 11.1 shows the output of the certificated teachers at the College.

Table 11.1. Kenya Technical Teachers College Output of Technical Teachers

Year	Number	Year	Number
1979	118	1987	177
1980	88	1988	172
1981	154	1989	234
1982	-	1990	322
1983	205	1991	335
1984	226	1992	344
1985	185	1993	400
1986	170	1994	385 *
Total			381.3

Source: Compiled by author.

** Subject to final verification.*

Distribution by Field of Specialisation

Technical Education (up to 1989)	585
Industrial Education (up to 1989)	265
Business Education (incorporating secretarial studies and accounting)	933
Mechanical Engineering (since 1990) (incorporating Automotive and Agricultural Engineering)	492
Building and Civil Engineering (inc. Carpentry/Joinery, Plumbing and Masonry)	501
Electrical Engineering (Electrical, Electronics, Installation)	303
Home Science/Institutional Management	256
Instructor Training (general fields)	228

It will be noted that the principal objective of intensifying the technical education in Kenya is, in the long run, to create a basis on which the looming unemployment can be reduced, through the creation of employable skills, and at the same time, self employment opportunities. The experience in the training of these specialists has of course been beset with many problems that will be highlighted as follows :

- i. Inadequate Planning : Planning for specialist training was initially characterised by what appeared to be of an ephemeral nature, not much beyond the immediate future. It was no surprise therefore within a period of about twenty years several major education commissions have been instituted and whose reports changes the country's education substantially. Thus the Ominde Commission 1965, particularly as the curriculum.
- ii. Political/Social stratification : Under British rule up to the early 1960s, any kind of technical education was considered the domain of the higher class and well to do. There was a protracted drag in initiating much development in this form of education while those who could afford, the European and Asians, could always seek the training abroad, mainly in Britain. In addition, education in all sectors remained for a long time in a four-way segregated pattern, for the European, the Asian, the Arab and the African, and given that order of importance. Government funding, for instance was, in the early 1960s for the European and African in the ratio of 5:1. The comparative remuneration of the technical teacher doing the same teaching job at the Kenya Polytechnic was similarly in a ratio approximately 2:1. It is worth noting that right at independence from British rule in the early 1960s, the new government took certain strong legislation to correct the imbalance and to remove the segregation of the communities. This eventually did help to consolidate the efforts for the technical education as well as the teacher training.
- iii. Financial Resource Constraints : In order to develop a technical education programme and related supporting facilities, there must be an investment of a very high order and proportion.

The physical facilities, the training of the trainer, especially starting as it was in Kenya, would have to be a very slow process, had it not been for the aid that Kenya, received from CIDA.

The other options of appending the required teacher training to the institutions already in existence, as indeed it was mentioned above was going to be ineffective in terms of the cost.

It would be safe to say that as a general rule, any venture which has no immediate economic gains will tend to be sidelined. Training for the specialist such as for the technical teacher, in itself a heavy capital expenditure, takes the same beating. Technical training itself has been quite successful at the major polytechnics because, largely, the industrial and manufacturing industries and commercial enterprises sponsor their technical staff directly and are able to realise the returns within short periods.

iv. Population Growth : Kenya has maintained relatively a high fertility rate. Child mortality rate has come down substantially while the life expectancy has continued to rise over the same period from 47 to about 59 within a relatively short time. The trend has had the effect of heavily straining available resources with proportionately much less being spent on training programmes. Thus, whereas the government was initially committed to free primary education, in essence, it has gradually become necessary to transfer the very heavy burden on to the parents. The implication of this is partly that due to the inability of the parents to meet the cost of the training, there must have been many talents that have been lost, while also, some efforts have been lost in cases where there may not be much commitment to the technical expertise, on the trainee's part.

v. Attrition : A survey made in the late 1970s showed that a large proportion of technical and science teacher trainees were following up these careers as a second priority. The first priority was higher training at the university, for the belief that this would eventually earn them more prestigious and better remunerated employment. The private sector, industry and commercial enterprises would gladly entice a well qualified technical teacher with three or four times the pay one would expect as a teacher. This continued 'poaching', almost reduces the training of this specialist to a near futile exercise.

Over the last two years or so we have actually witnessed the not so rare case of teachers from our own institution rising from salaries between (three to five folds e.g. : K Sh. 7,000.00 and Sh. 10,000.00 to private business with new salaries of Sh. 35,000.00) these being the basic.

One lucky secretarial teacher trainee who taught barely for one year rose from her Sh. 5,000.00 per month teaching job to Sh. 30,000.00. The

pay itself is far too attractive for many to consider other merits and the classical commitment to the career or even the job security itself.

The government has no doubt made some deliberate effort to reduce the gap existing, but the loss continues due to the big competition by the lucrative situations in the profit making establishments.

vi. *Fluctuating Demands*: A series of developments of the last few years have resulted in an artificial situation of technical teachers in the field. We say artificial because the relative saturation has been due to:

- The recent sudden economic slump which has curtailed the progress of technical education. The institutions have been unable to expand, while trainees have been unable to meet the high fees required.
- The social/political implications of replacing untrained technical teachers with the qualified ones. The intentions are sound, but the social and the political implications are perhaps too limiting.
- The world Bank/IMF structural Adjustment Programme (SAP) which demands that the government reduces the 'bloated' image of the civil service, and which means that even the technical teachers are not spared, whether or not they are qualified.

These among other factors, it will be observed, are of recent development, and largely governed by the adverse economic trends. Should the situation change for the better, the original projection for the production of the technical teachers would remain tenable.

vii. *Rivalry*: The late saw the emergence of several community colleges each of which had science and technical development objective in its set-up. Initially, these institutes of technology did not have trained teachers as they were set up on the 'harambee' (community self help) basis. When the government stepped in to give aid, it followed that the deployment of the trained teachers became a great deal of duplication of effort. This still continues due to the rather sensitive nature of their original mandate. It may take some time to correct the duplication.

viii. *Technical Teachers for the Specially Needy*: It has been recognised that one very important area of assisting the handicapped is to provide the means to a good degree of independence. Technical teaching for the handicapped, on the other hand requires specially trained personnel. Efforts are currently underway to supplement to numbers that are already in the field. I have been pleased to note that practically all the teachers that are providing technical education to the visually, hearing, or other physical handicapped all over the country are graduates of the Kenya Technical Teachers College. While training is now available only for the teachers at the primary schools at the Kenya Institute of Special Education, it is expected that shortly, a full department will be mounted at the Kenya Technical Teachers College for the teachers at the higher level.

ix. *Gender Equity*: Having recognised the unfortunate situation of inequitable distribution of opportunities for women in technology and less still as technical teacher, deliberate efforts are now being made to correct the situation. One is through the

affirmative action whereby women are given the first priority in a competitive situation. Second is the early exposure of the youth - both genders, to the more practical and technically oriented skills and inclusion of the same in the curriculum. A third method is to assist women in holding seminars where important information may be exchanged. Women already in technology, women technical teachers, in business and general entrepreneurship can, through the seminars, create a multiplier effect in this regard.

Conclusion

While solutions to the foregoing problems are still being sought, it remains for some research to establish the extent to which the original goals of developing technical teacher education programme have been achieved to date in Kenya.

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Appendix II.1

Deployment of Technical Teachers

Graduates of KTTC are posted by The Teachers Service Commission into the following institutions

National Polytechnics
Technical Training Institutes
Institutes of Technology
Teacher Training Colleges (as may be required)
Secondary Schools (several do offer technical subjects)
Primary Schools (which may have specialised training)
Institutes of students with special needs : visually, hearing or other physically challenged - a steadily rising endeavour

Or may make interministerial transfers to be engaged in
National Youth Service (Engineering Institute units)
The Department of Defence Training Institutions
(Army/Air Force/Navy)

Other Government Ministries and Agencies (mainly Agriculture, Health, Works and Housing, Water Development, Transport and Communication and parastatals among others)

Note : The teachers Service Commission would not normally post teachers to institutions which are not under either Technical Training and Technology.

They may also be "poached" by
Private Firms,
Commercial Colleges

Appendix II.2

1. Minimum Requirements for Entry into KTTC leading to the Diploma in Technical Education :

Engineering and Home Science Subjects - (4 terms or 15 months)

Pass in 'O' Level (Secondary School Certificate), plus Kenya National Examinations Council (KNEC) Craft Part III Certificate OR KNEC Technician Certificate Part II or the Ordinary Diploma from the NATIONAL Polytechnic or equivalent Institution, in the relevant field of specialisation.

Business Education Specialists : (7 terms or 27 months)

Secretarial Studies : Stage 2 KNEC Examination passes in all secretarial subjects : typewriting, shorthand, Business English, Secretarial Duties, Office Practice and Commerce. N:B - Candidates must pass the third stage of these subjects to be awarded the Dip. in Tech. Education

Accounting : Chartered Public Accountant (CPA) Certificate Part I.

Candidate must pass a specified number of papers in CPA Part II to be awarded the KTTC Diploma.

Certificate Courses : (for the Certificate in Technical Education)

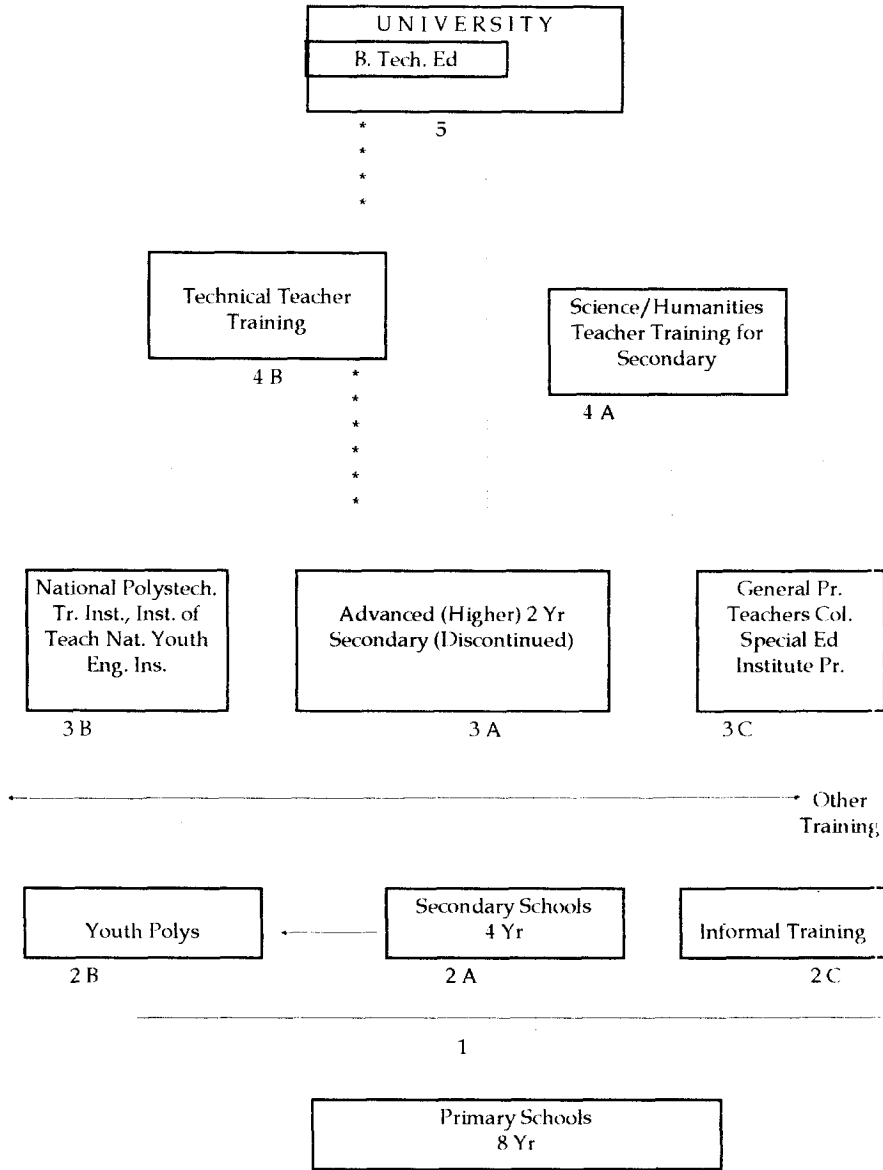
KNEC Craft Part II in the respective areas : mainly Agriculture and Home Science.

Curriculum in General

- a. Pedagogical : Foundation Courses - General Methods, Special Methods, Philosophy of Education, Learning Psychology, Curriculum Design, Educational Technology, Research Methods, School Finance and Administration, Guidance and Counselling, etc.
- b. Skill Development : 25 to 30% of the time is spent adding on the candidate's proficiency in his area of speciality.
- c. Support Subjects : Entrepreneurship Education, Computer Studies and Application, Mathematics, English and Physical Education.
- d. Teaching Practice : 3 month practice - field practice teaching under the supervision of the College tutors and the co-operating school administration. Final assessment is done by a team of Inspectors appointed by the Director of Technical Education in the Ministry.

Note : Each of the graduates should be able to teach at least two subjects in addition to his major. Thus a graduate in Electrical Engineering should be able to teach Electrical Engineering should be able to teach Electrical Engineering, Mathematics, Technical Drawing, also Entrepreneurship Education.

Figure II.3 Generalised Structure of Education and Training in Kenya 1990



Determining the Learning Needs of Tertiary Level Teachers

*Flore GANGBO**

The systematic training of primary and secondary/level teachers has for long been part and parcel of national educational efforts. The training of teachers in higher education is however not carried out in any systematic way because everybody thinks that all holders of higher degrees can teach university-level students.

The training of teachers in higher education to carry out research is a necessity which has long been established. As regards their training as teachers, reflection and training have been conducted on that aspect for nearly some fifteen years only, especially in North American countries.

Training Teachers in Higher Education: Some Problems

- University trains people who are useful to the society. And, most of the time, it defines the general objectives but it does not give to teachers a clear idea of the way in which they must adapt themselves, learn and, fulfil their roles. If the types of training provided at university are to be more effective, special attention must be given to the teaching skills of trainers.
- The recruitment of teachers and the promotion of the latter are based on research work and on their skills in conducting research and not on their teaching skills.
- There are briefly two major directions at university: the technical-vocational direction (medicine, special fields in medicine, law) and the purely academic

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and "intellectual" direction (Arts, Science...). In this connection, the teaching skills are not the same for the two categories of students.

- In fact, the teacher is often self-taught: he/she organises teaching by referring to a pattern or according to his/her intuition. He/she is concentrated more on the content 'to be conveyed' than on the way to convey it: teachers are concerned more about what they are going to say than about what the student learns.
- The frequent and mass failures of students at university must be taken into consideration. In considering this issue with regard to African universities, the International Association for Pedagogy at university level mentioned the influence of the lack of teaching skills of lecturers. This hypothesis must be taken into account since Lapointe (1992) regards education environment as an educational system in which human resources (teachers, students), the environment and material and financial resources constitute a number of factors in dynamic interaction which are organised according to a goal.
- With regard to the improvement of training at university, one can no longer ignore neither the gradual contribution of the education discipline nor the development of communication sciences and techniques. Henceforth, one has therefore no longer the right to claim that: 'if one has a good knowledge of his/her subject, there is no need for a particular teaching skill to present it'.

Thus, if one wants to help teachers fulfil their different roles in a better way, they must be trained, that is to say planning and implementing a training programme for them.

If the systematic designing of a training/education programme is to be effective, a study of the training needs has necessarily to be conducted first (Brien 1991 ; Lapointe 1992).

Therefore, the training needs must be identified in order to narrow the gap between the present situation of teachers and the desired situation.

Some Key Words

Teacher Training: It is the process whereby teaching skills are acquired or improved.

There are basic teacher training and the improvement of teaching skills (Ferland, 1987; Bireau, 1990; Stritter et Coll, 1991).

- Basic teacher training or introduction to teaching is intended for teachers at the beginning of their career: in general, it is focused on: the preparation of educational objectives, the evaluation of learning and teaching, the use of educational techniques, the principles of adult education, interpersonal relationships and communication, etc.
- The improvement of teaching skills or continuing education is meant for teachers who have already gained experience in teaching at university level: it

is focused on learning with the aid of computer, television or video, the designing of a self-learning module, the preparation and the use of simulation exercises, etc.

Determining Training Needs

The definition used most commonly in literature to refer to the concept of need is: 'the gap' between a 'present situation' deemed unsatisfactory or imperfect and a 'desired situation' deemed ideal, satisfactory or perfect (Katuala 1988; Brien 1991; Lapointe 1992).

There are several categories of needs. Those which are deemed useful and retained here are the following:

- The needs *expressed* by teachers, individually or as a group.
- The needs *revealed* by the analysis of the teaching practices of teachers either directly or through tests or questionnaires, etc...
- The needs *related to the requirements* of the training system. For example, at the Faculty of Health Sciences, the medical studies reform project has opted to:

- 1) focus training at university on the prevailing health problems of the individuals and communities.
- 2) integrate basic sciences into health sciences whenever it is relevant and possible to do so, in order to promote autonomy of learning among students (The Faculty Committee, 1991).

It is obvious that the teaching skills necessary to achieve the goal of such a training programme are different from those needed for a traditional educational system.

Training Needs Determination Applied to Higher Education

First, information must be collected from some sources by using appropriate techniques. Then, it must be analysed and classified according to priority. This will make it possible to design a relevant training programme.

Types of Information

The teaching profession includes a number of behaviours which when acquired enables the teacher to perform his/her job effectively.

The purpose of the study of the needs in terms of teacher training is to look for the presence or absence of these behaviours or variables.

The main variables are related to:

- the planning of all or part of a training course or programme;
- the implementation of all or part of a training course or programme;
- the evaluation of learning and of the training process;
- the designing and/or the mobilisation of teaching resources.

Sources of Information

Many sources can be considered when identifying the needs in terms of teacher training (Katuala, 1988 and Lapointe, 1992).

The sources to be given greater importance to try to find the needs in terms of the training of teachers in higher education are:

- the teachers themselves: in fact they are the ideal source (Lapointe, 1992);
- the inventory of skills required by the teaching profession; it is the case of the needs related to the requirements for the profession (Bireau, 1990; Stritter and coll, 1991);
- all sources which can help to identify teachers' needs: the present-day students and former ones, the management of the institution, etc.

Methods of Collecting Information

There are many methods each of which has advantages and disadvantages.

The choice of a method must make it possible to record accurately the participants' views on the collection of information while enabling the interviewees to express themselves freely. This choice can take into account a number of criteria like the quick execution of the method, consensus, the quality and quantity of data, etc. (Lapointe, 1992). Let us mention a few among them:

- direct observation: observation is carried out with the help of a correction grid (Scallon 1988; Girard and Goulet 1991); the observation criteria must be selected beforehand. This method requires that the person who uses it should be a good observer and a good judge. One of the disadvantages is that when the teacher is aware that he/she is being observed, he/she may behave like an actor. The reliability and objectivity of the observation may be increased by recording the latter on a video cassette. The designing and use of an evaluation grid are also important. The recorded cassette enables the teacher to have a personal document which objectivises the quality of his/her gestures; in addition, video-taping makes it possible to go back over sequences to be discussed in order to help the teacher improve his/her performance. This method is effective and relatively expensive.
- Questionnaires: are the most commonly used method; they make it possible to reach a great number of people; but the respondents do not always have the opportunity to expand their ideas; the drafting of questionnaires requires a number of rules which must be observed and, a good analyst is needed to study the results
- discussions in small groups:
 - a) the nominal group technique - (TGN):
 - b) the interaction in the group: it is the traditional form of meetings; this method is cheap; but a lot of energy is spent and sometimes, participants have the impression

of having lost their time. This method is influenced by people who express themselves easily, natural leaders, authorities, etc...

c) the critical incident technique: an incident which is reported or based on actual experience is used to identify the reasons why the incidents have prevented the achievement of the objective defined beforehand; the incidents or inefficient behaviours make it possible to identify training needs; but the incident may cause extreme reactions and fail to contribute to the study of needs.

- Consultation: simple and cheap. it may take a long time and data are difficult to quantify;
- Interviews which are structured or not: they have the advantage of providing explanations and comments: they may be lengthy and people interviewed may play the role of actors.

When the needs are identified and recorded, one must try to find the priority needs in order to carry out activities to meet them.

The Experience of the Faculty of Health Sciences in Cotonou

This study analysing the needs of teacher training was conducted by the educational committee of the FSS of Cotonou in preparation for the medical studies reform at the Faculty of Health Sciences of Cotonou.

The FSS was set up in 1971. Presently, there are 64 Beninese teachers at the FSS. Their academic grade are distributed as follows: lecturers (20%), qualified lecturers (holders of the aggregation) (39%), assistant lecturers (41%). Their age distribution is the following: 30 to 40 years old (4.7%), 41 to 50 years old (76.2%), 51 to 60 years old (14.3%), 60 years old and above (4.8%). There are 9 (14%) women.

These teachers are specialists in basic sciences (15%) or clinicians (85%), all of them specialised in various disciplines. Their activities are: education, research, the provision of service for individuals and communities (health care), services provided at the faculty (administrative work and work on the committees at faculty level).

The purpose of the study is to identify the present needs in terms of the education of teachers at the FSS based on their views.

All teachers were to participate in the survey. Eventually, 25 teachers out of 64 were present at the scheduled time and all of them took part in the survey, regardless of their academic rank.

A method of discussion in small groups was adopted the nominal group technique. This method was chosen due to some of its advantages: it is cheap; it forces participants to concentrate on the subject which is dealt with; it alternates individual work with group work;

compared to other methods of discussion in small groups, it makes it possible to minimise the influence of leaders and makes the discussions impersonal. The stages of this technique are summarised by Nadeau (1988) and explained by Lapointe (1992).

Table 1 shows, in order of priority, the results retained at the end of the exercise based on the nominal group technique which was carried out with teachers at the FSS.

Table 1 : Teachers' Needs Expressed, in Order of Priority

Rank	Wording	Ex	N	Mu	O
1	To have a good knowledge of the methods for designing relevant objectives	189	24	7.87	1.54
2	To have a good knowledge of audio-visual technology	142	25	5.68	2.07
3	To have a good knowledge of learning evaluation techniques	104	20	5.2	1.80
4	The management of the time allotted	89	18	4.94	2.46
5	To be able to define students' priorities	76	12	6.43	2.78
6	How to prepare a lecture	76	14	5.42	2.63
7	Lecture technique	71	14	5.07	2.49
8	Education evaluation methods	52	17	3.05	2.43
9	Lecturing	51	14	3.64	2.08
10	To address an audience	50	11	4.54	2.63
11	To catch and hold attention	49	9	5.44	1.83
12	The drafting of clinical cases for tutorial classes	46	13	3.53	2.17
13	To interest the student in a subject	46	10	4.6	3.13
14	Skills in computer science and in the preparation of teaching material	39	10	3.9	3.04
15	Methods for designing duplicated lecture notes	32	9	3.55	2
16	To improve teacher/student relations	18	8	2.25	1.63
17	To improve knowledge of English	14	3	4.94	1.63
18	To know how to conduct debates at a meeting	6	2	3	1

Source: Compiled by author.

Ex : amount of weight given to the need

N : number of people identifying the need

Mu : average weight given to the needs as a whole

O : distribution of votes on the needs (as regards the need ranked 1st, 66% of people (16/24) have given a weight between 7.87 +/-1.54 that is to say between 6.14 and 9.41).

The designing of objectives is a matter of concern for most teachers at the FSS; this need was the object of good consensus (Variation Ratio = 13.61).

In addition to the designing of relevant objectives, good knowledge of audio-visual techniques and learning evaluation techniques are the themes regarding which the needs in terms of teacher training are most felt.

Conversely, teachers are less willing to receive training in the methods for designing duplicated lecture notes, in teacher-student relations and in how to conduct debates at a meeting.

When needs are identified, it is necessary to plan and carry out training. A basic question still remains however: how to motivate teachers to be trained in teaching skills? This issue will be tackled briefly in the conclusion

Teacher Training Needs in the USA

Jason and Wesberg (1992) studied teachers and the disciplines taught in US medical schools. This study dealt with the fields of possible assistance and the methods to be used within the framework of the improvement of teaching skills; the respondents were divided into three categories: those who expressed the need for assistance, those who did not and those who remained uncertain. The results are presented in Table 2.

The priority themes are related to evaluation, to the use of educational technology and the formulation of educational objectives.

In both surveys, the needs in terms of teacher training are the same but the order of priority is different. The first three needs for which assistance is wished for are:

- the objectives: the designing of teaching-learning objectives (Cotonou)
- the good knowledge of audio-visual aids (Cotonou)
- Evaluation: the evaluation of the way education is provided (USA); the evaluation of education (USA)

In both surveys, the needs in terms of teacher training are close to the three major points of any educational system with its components, namely: knowledge, learner and pedagogic intervention.

Table 2 : Demand for Teacher Training Assistance in US Medical Schools

Fields of Assistance	Demand for Assistance in Percentage	
	Expressed	Not expressed
Evaluation of the way to provide education	84	14
Evaluation of the students' performance	79	15
Evaluation of the education effectiveness	78	10
Use of educational technology	74	16
The formulation of objectives	68	22
Lecture	68	26
Group discussion	65	27
The individual supervision of students	58	31
Production/utilisation of self-education material	50	39
The designing of education tailored to suit individual requirements	47	36
Interpersonal skills	41	42
The designing/Use of computer-aided education	41	43

Source: *Compiled by author.*

Conclusions

Among teachers' activities, those which enable them to achieve their personal objectives are research and teaching (Ferland 1987; Allen 1989). In order to help teachers fulfil their roles, they must be allowed to work more comfortably and effectively in their university environment. For this assistance to be effective the pedagogic training need must be identified and teachers must be motivated to follow this training.

The motivation of teachers is influenced by the balance between:

1) the forces which act as a brake:

- the main criterion of recruitment and promotion which is the ability to carry out research.
- Insufficient human resources

2) the driving forces ; in Cotonou for example, they are:

- the commitment by the deanship
- the training of human resources in pedagogy
- the efficiency of the pedagogic committee. etc...

Institutional recognition is an important motivation factor in encouraging teachers and their trainers in their efforts to improve teaching skills because many teachers think that the time devoted to the improvement of one's skills is counter-productive considering that the time could have been devoted to other more "valorising" activities.

The training of the teacher must be centred on him/her (student-centred) and not on his/her trainer (teacher-centred); it is what the teacher himself/herself should apply when it is his/her turn to train students. The training of teachers is still not perceived by all as a necessity since the recruitment of teachers is based on their abilities to carry out research.

Therefore, the teacher must be encouraged, that is to say bringing him/her to feel like acquiring teaching skills. How do we motivate the learners to acquire skills? Motivation is the driving force which is vital for training.

Brien (1991 and 1992) was inspired by Anderson's (1983) pattern in describing the three phases of the acquisition of skills, namely:

- 1) the motivation phase: during which the learner is ready to make the necessary effort because he/she realises that he/she lacks skills in order to perform a job; therefore, he/she imagines all that learning will enable him to achieve knowledge? (he/she is therefore motivated) and takes the decision to acquire skills.
- 2) the learning phase : during which the learner acquires the knowledge and procedures which enable him/her to be competent.
- 3) the practice phase : during which, after several repeated attempts and corrections, the learner shows his/her good knowledge of the skills or his/her performance.

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Section D
Towards the Year 2000 A.D.

Education for all by the Year 2000 : Implications for Teacher Education

*Obest O. P. NDAWI**

At a World Conference of leaders of Government, International agencies, professional bodies, and non-governmental organisations in Jomtien, Thailand in March 1990, one hundred and fifty-five (155) governments committed themselves to education for all children and adults - before the year 2000 A.D. What did this imply? This meant a commitment on the part of these governments, to have made available to all their citizens of school going age, and those adults who had missed the opportunity during their young, a basic education that would enable them to cope with the literacy and numeracy demands of the modern world. We review this commitment at a time when we are privileged to predict with a fair amount of certainty, the possibility of the nations attaining this ideal. By September 1993, three years after 200.000 children in Croatia had no access to schooling, displaced by civil strife, 99 percent of the boys, the Conference and girls in Somalia were deprived of their education because of the war; in Mali, 68 out of 100 men and women were illiterate.

In Zimbabwe, on 19 August 1994, one of the daily newspapers reported that with a 3 percent population growth rate, the population which was 10 million in 1990 would increase by 1.5 million by 1995. This meant an average of 5.3 children per family demanding a 2 fold

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increase in the number of schools in one generation (30 years) just to keep the educational provision at the present levels. Meanwhile some schools are unfurnished and treasury would rather start new projects than reinforce the success of the old ones.

Education in most other countries (basic education for that matter) was still underfunded, ill-equipped, and remained a low priority area. Thus, the feasibility of this ideal was in doubt.

However, in spite of the gloomy situation above, many states have made commendable steps towards achieving some measure of success in attaining this ideal Education for all 2,000 (EFA 2000). It is therefore a matter of urgency that teachers as professionals, are ready for this real possibility.

There are three fundamental issues to EFA 2000; namely *access*, *quality*, and *relevance*. While the question of access is the responsibility of the state governments, it precipitates increased quantity of education for which teacher education must provide teachers, thus, the problems of quantity, quality, and relevance of the education provided rest squarely on the shoulders of professionals, the teachers, and indeed the teacher educators.

Teacher Education is a service institution; it produces personnel specifically to service the mainstream education system. To a large extent, these products are the ones who, in different capacities, determine what shall be taught and how it shall be taught. They must therefore, not only ensure, but continue to review and re-ensure, the quality and relevance of the commodity that they sell.

To that end the system that produces teachers (teacher education) must not only respond to, but anticipate the needs and demands of the education system as it involves, if it (teacher education) is to remain relevant.

This chapter will assume that (EFA 2000) is in sight and look at what problems are attendant and hence how teacher education could produce new practitioners who can offer relevant quality education to all (or re-orientate the old teachers to that new reality).

KENNETH KING (1994) in his Editorial to the *NORRAG NEWS* of August 1994 warned against making universal prescriptions for higher Education in different countries : [It is important to recognise that the diversity of country situations and circumstances critically influence the nature of policy analysis in higher education. Caution is

required in generalising about higher education systems, their problems and strategies for addressing them]. However, it is also true that with that caution in mind, many useful generalisations can be made about the African Continent as we also have many similarities of circumstances e.g. Poverty, Manpower shortage, exotic curricula etc.

What problems is EFA 2000 likely to face which teacher education needs to anticipate and prepare for ?

Quantity and Increased Manpower Demands

EFA in countries where access to schooling has been limited to only a few, will automatically mean an increase in the quantity of education to be provided, hence more classes to be taught, and consequently, the need for more qualified teachers. Teachers' colleges and other teacher training institutions are not likely to produce enough teachers. This situation is in many respects similar to what has happened in many African states where, on attaining independence, access to school was increased, resulting in increased demand for qualified teachers. The solutions employed in these circumstances can be repeated in order to quickly produce enough teachers for EFA 2000.

In Zimbabwe, for example, at independence (1980), a new mode of teacher training, the Zimbabwe Integrated Teacher Education Course (ZINTEC) was introduced to complement the traditional training system. ZINTEC gave the trainee teachers a concentrated 16 week-theory course in college, sent them out into schools where they took charge of a full class for three years, being supervised by lecturers, and doing more theory by distance education. They then returned to college for a final 16 weeks before certification. This mode of training, as opposed to the traditional four-year college based training quickly provided teachers who handled the class with some idea of what to do.

A pertinent question here is the extent to which there were some inherent weaknesses associated with this apprenticeship approach to teacher training.

This is because the ZINTEC experience above appears to be a successful one which other nations could emulate should they be faced with a similar sudden demand for qualified teachers. However, a word of caution is necessary. If the ZINTEC was indeed a success, we would have expected Zimbabwe to consolidate the project or even

expand it. Indeed ZINTEC did affect the conventional teacher education model in that it was also changed from the usual three years to four years, with teaching practice being changed from one term (three months) to two years, giving the teacher a full load of teaching. Notwithstanding that, by 1984, some ZINTEC colleges began to be integrated into conventional teachers colleges, resulting in their being totally absorbed and abandoning the ZINTEC approach, leaving their remaining students, who were still in the pipeline to be processed by three remaining ZINTEC colleges. To-date, only two ZINTEC colleges remain. They are small in structure and can only take low enrolments.

Even the status of their principals is a grade lower than the principals of conventional colleges. This suggests that the programme was not a total success. People were in fact suspicious of the level of theory and content that these On-the-job training products had acquired. This is the criticism often labelled against the 'Social Market' paradigms of teacher education. It was also realised that the initially donor-funded costs of vehicles for field supervision and for the production of distance education materials, could not be sustained on a large scale, thus it was seen fit to cut the project to smaller proportions.

The point being stressed here is that, when we adopt these quick mass-production approaches to teacher training, we need to modify them and plug any holes that may invite much criticism on the products and consequently of the teaching profession as a whole. Other nations embarking on similar projects need to heed this word of caution drawn from the Zimbabwe experience.

Malawi launched in 1994 an intensive two-and-half week training for 15,000 untrained teachers so that they would go into the classroom with some formal skills. This was to be followed by in-service training by distance education over a long period, and then, finally, a year in college to graduate as a qualified teacher. The progress on this project needs to be followed closely so that we may benefit from their experiences and use them to improve all similar efforts in the future.

In 1974, Tanzania geared for education for all by the year 1987. Initially, enthusiasm was high, enrolments shot up but this have gone down again. By 1994, only 70 percent of the school-going age are in school. Apart from the poor school environment, it is reported that some parents are not happy with the poorly trained teachers, and see school as a waste of time. These experiences should inform our efforts

to quickly provide teachers to cope with these 'explosion' kinds of educational expansions.

Another question we in teacher education cannot continue to evade is that while the nations are 'choked to suffocation' by their high education budgets (relative to all other areas) they will look for alternative to formal education for providing EFA 2000. The staggering education budgets may again be illustrated by the Zimbabwe experience where, in the 1993/1994 financial year, 30.44 percent of the total national budget went to education. In the 1994/1995 budget, 29.56 percent was again devoted to education. The strain will have to be felt and cheaper alternatives will have to be sought especially for providing EFA 2000.

If these should be found, will our formally trained teachers be able to cope with other modes of education than the formal school in its present form? How shall we prepare them for such possibilities? Is it not time our formal teacher training also addressed the informal/non formal education methods? Should we not include such skills as broadcasting, film/video projection, writing of distance education materials which may be required when alternative forms of education are adopted? If we do not, whose job is it then to provide these skills?

Compromise of Quality for Quantity

With increased numbers of consumers of the commodity (education) against a background of limited human and material resources especially in our poverty-ridden circumstances in Africa, the quality of EFA that we can offer is likely to be prejudiced. There shall be too few textbooks, exercise books, classrooms, laboratories, pencils, chalk-sticks, etc.

An inverse proportion relationship between the quantity of education provided, especially in circumstances of limited resources, has always been found to exist (i.e. the higher the quantity, the lower the quality). The traditionally trained teacher is trained for the ideal conditions of plenty. How then shall we prepare the teacher to cope with the new circumstances most of them unforeseen? How can we anticipate the problems?

John Elliott (1993:17-18) proposes the hermeneutic paradigm of teacher education which emphasises situational understanding and the role of the teacher in school-focused and classroom research.

Based on the premise that each teaching situation will be unique and the problems unpredictable. The hermeneutic paradigm trains the teacher to make intelligent responses in practical situations which are complex and cannot be specified in advance. This it makes the basis for the pre-service teacher education curriculum and for the continuing education of teachers. Teachers trained along this model could be expected to survive in the unforeseen circumstances of EFA 2000.

The teacher is to be prepared for reflective practice, research-based analysis of the problems that may arise in his 'practice' and refining of self-initiated (not textbook-prescribed) solutions to the problems.

When teachers have been prepared by narrow recipes specifically tailored to enable them to operate in predicted situations, we have relied on in-service courses to retrain these teachers to cope with new circumstances (e.g. of content and methodology). With EFA 2000, there may be too few resources and the initiation of fresh men may consume all the resources leaving none for in-servicing training for already trained teachers. It is therefore important to equip the teachers we produce with skills to learn new materials, skills to identify new problems, formulate on solutions their own, try them out, and evaluate their successes or failures in order to improve on them. In short, we have to prepare teachers for 'the unknown'.

The Question of Relevance

The relevance of the education we provide is only relative to the demands of the situation in which it is given. While these demands cannot always be predicted, the hermeneutic approach above mentioned could provide the answer. The teacher has to have skills to research and identify the new needs of the pupils, hypothesise and test solutions to such needs, and implement these solutions. What one observes from Africans academic-gearred curricula is that these will not do for all the learners to be covered by EFA 2000. Some will not go beyond primary school level. Some youths will need survival skills in a life of unemployment. Adults will want to see the real value of the literacy, not just literacy for its own sake. In some adult literacy classes, some learners have asked, 'Literacy for what? I am no more going to look for employment' or, 'If I attend classes, are you going to recommend me for promotion?' The education we provide will need to be varied and relevant just in case all we achieve is raising the level

of frustration of those who go through our education. Our teachers need to be prepared to provide such education.

In most African countries, there has been a mistake which has grown bigger from colonial times and efforts to redress the mistake have led us further off target.

Formal education was in most cases introduced during the colonial era by missionaries who had their own agenda different from ours, viz. to spread the religious gospel. Literacy and numeracy were important to ensure the multiplier effect in the propagation of the gospel; converts needed to read the gospel and convert more people on their own, church projects needed to be run by numerate people.

When colonial governments have involved themselves in native education, they have concentrated on 'harmless' arts, and theoretical sciences that were meant to produce teachers, nurses, agricultural demonstrators and courteous assistants in the industrial sector.

For their own 'white' children, they have taught more practical skills such as accounting, commerce, practical industrial skills like machining, joinery, fabrication etc. These children were prepared for existing vacancies waiting for them to be captains of industries.

When the black majority governments have taken over, the whites have retreated to industry where they have consolidated their control and indeed sabotage tactics there in. If they have left, they have left "industrial ruins".

Meanwhile the black majority government has to be seen to be correcting the situation where an inferior curriculum was for blacks and a superior one preserved of the whites.

Likely Challenges

There have been too few resources for the increased numbers, making it impossible to make learning really practical hence having to theorise what should essentially be practical learning.

There has been insufficient skilled teachers for the 'new' subjects.

There has been inadequate infrastructure in the schools, e.g. no electricity for some machines.

Thus, the ideal curriculum has been watered down and the half-baked products have come out of schools into a world where there were no more vacancies for them like in the past ; into a world demanding job creation skills, into a world demanding capital which

again they do not have - thus, into a world of frustration. The only alternative has been further education if it is available and affordable. Thus our schools have, even in these efforts, provided *education for further education*, not *education for survival*. The gist of this problem is that African school curricula have always responded to the real life demands too late, resulting in their responding to the demands of yesterday, not of today or tomorrow. In light of this experience, our curricula for EFA 2000 should not be reactive to the life demands, but proactive, anticipating the demands of the future on the products of the school.

If this is to be achieved, our teacher education curricula should then be even far more proactive and prepare the teachers now in a way that will enable them to prepare their pupils relevantly for the future.

How far can one see into the future and correctly anticipate its demands? Perhaps, if one can see as far as the horizon, then one should use that limited but long enough field of vision as a useful guide. The problem now is that school curricula are responding to situations as if one could only see as far as behind one (as far as the ground one has already covered) and not an inch into the future. Even if the future cannot be precisely predicted, teachers of the future, rather than being prepared for the demands of the present and the past, should be given skills to analyse the demands of any new situation (including the future when they get to it) and to react appropriately.

Teacher Education has tended to produce implementors of curricula that existed; it may be time to consider producing producers of new curricula; teachers who have skills to improve curricula, author books, introduce new teaching materials, research and identify solutions to new problems, and skills to Africanise the content of our education.

Are the teacher educators themselves ready to impart such skills? How could they be prepared for this?

This question may be answered differently in different countries but generally, it calls for a purposeful in-servicing and reorientation of the teacher educators to turn their focus from Socrates, Aristotle, even the Piagets, the demands of the year 2005, 2020, 2030. This would enable them to train teachers who can offer relevant education to the pupils as argued above.

The question of relevance of the classroom education goes beyond making the content of lessons relevant to the every-day life of the

learner. Relevant education must enable the learner to pursue higher education if he can, or generate self-employment if he cannot secure a job. Statistics from, Zimbabwe, give a rather gloomy picture which should make us challenge the validity of our academically oriented education. This validity will be more on the spotlight with EFA 2000.

The demand for higher education and training in Zimbabwe can be estimated by looking at the number of entries for 'O' level examinations. Table 13.1 shows the number of pupils who attempted at least 5 'O' level subjects at a sitting for the years 1991, 1992 and 1993 and the numbers who passed, while Figure 13.1 shows the level of access to tertiary education.

Table 13.1 : Zimbabwe 'O' Level Examination and Pass Rate

Year	Entries	5 Passes at C	or Better
		Number	% of Entries
1991	123,320	25,816	20.9
1992	107,645	23,217	21.5
1993	101,127	23,286	23.1
Total	332,092	72,419	21.8
Average	110,697	24,139	21.8

Source: Compiled by author.

The figures in shows that on average, only 21.8 percent Table 13.7 of our candidates pass their O-level examinations (this is not to say they all go into further/tertiary education). May be another 8 percent supplement and pass in subsequent exams so that they continue to pursue higher goals. However, for more than 70 percent of our O-level students, the O-level examination will be terminal and a failure.

Although they will have paid school fees and examination fees which are quite staggering to their poor families, they will walk out as failures. Some will become house girls, sweepers, messengers, drivers if they are lucky. What they learned in school i.e. the little they will retain, will largely be irrelevant. Is it fair to make 70 percent of the

pupils pursue an irrelevant curriculum just to accompany the 30 percent half of which will make any meaningful use of the knowledge?

If this experience in Zimbabwe is anything to go by, are we going to let this continue even when we have EFA 2000 where the proportion who find no benefit from the curriculum may even rise to 80 percent? Are we going to brand 80 percent of the future generations as failures? Certainly this is immoral. Surely, it must be the responsibility of us educationists to make the education we give relevant even to those whom we know will not use it as a stepping stone to further education, but as an end in itself. Continuing to teach what we know to be irrelevant material to the learner, just because that is what the few who go to college need, raises serious doubts on our credibility as professionals. We cannot defend it.

The data in Figure 13.1 shows that even for those who do obtain the full 'O' level certificate the situation is no better for 50 percent of them who either go into undefined occupations or join their colleagues who failed, but do so with greater frustration because their passing the 'O' level exams has been no avail.

Figure 13.1: Access to Tertiary Institutions by 'O' Level Graduates (average 1991-93)

—	Agricultural Colleges	600 (0.5%)
—	Nursing and related fields	500 (0.4%)
—	Youth Training Centres	900 (0.8%)
110,700 —	Apprenticeship Training	2,000 (1.8%)
—	Teachers Colleges	5,100 (4.6%)
	Polytechnics	
—	Technical colleges and Vocational Training Centres	5,000 (4.5%)
—	Private Colleges	30,000 (27.1%)
*	A Level : 9 000 = University (8.2%)	2,000 (1.8%)
*	Undefined	57,600 (52.1%)
	Total possible absorption = 53,100	

Every student who attempts advanced level studies has his/her eyes on university education. However this 'dream' is only realised by a few (22 percent). The rest have to find other alternatives or finally suffer their deferred frustration.

On the average, 2,000 students can be absorbed into first year courses in the country's universities. This leaves out about 7,000 (78 percent) to :

- attend Universities outside Zimbabwe : or follow graduate courses through distance education ignore their 'A' levels and join those courses meant for 'O' level or below; or stay at home.

The data above clearly show that the majority of these learners going through to 'O' level (which is regarded as finishing formal education) do not go into academics for a living there after. Failures or dropouts are 22 percent while 52% of those who pass still cannot pursue academics. In spite of this consistent reality teachers, because of the nature of their training, teach as if the whole class was destined for the academic university. Curricula prescribed by the products of our teacher education systems, also confine the activities of the learners in our schools to those that would be relevant to university academics ; they hardly address the realities of jobless post-school experience which is in fact the certainty for the majority of our learners.

If the Zimbabwe experience provides any lessons, what could teacher education do to influence teachers to address the plight of the majority of our learners when they leave school ? Indeed fundamental changes as suggested above will have to be introduced in our teacher education curricula.

Reviving the Sinking Status of the Teacher

The job of the teacher has been largely facilitated by the situation where society 'looks up' to the teacher outside the classroom. With EFA more people are going to realise better social success than the teacher. The increased number of teachers will mean a professional inflation which will make it impossible for governments to pay teachers salaries that can afford them any level of social elevation. Can teacher education continue to be oblivious of this real threat to the status of the profession ?

This volume discusses of the dwindling image of the teacher in Nigeria, the famous teacher-exodus from Ghana, the difficulty in securing properly qualified candidates for teacher training in Tanza-

nia, Mali and Côte d'Ivoire and indeed, the generally low morale of teachers across the continent; surely, we have an obligation to give the new teacher certain skills and orientations that will enable him/her to sustain high morale in the profession.

Already, teachers unions in some countries like Gambia, Malawi, Zimbabwe, Tanzania, Ghana, to mention a few, are involved in school-based programmes to raise and sustain teacher morale. The teachers need to be trained in these important trade union matters.

Teacher-education now needs to address in its curricula, trade union skills and entrepreneurial skills that can enable teachers to project their profession and pool their resources in income-generating projects.

A teachers' bank or building society for example, would generate more funds for teachers to supplement their salaries: there are many possibilities. Is it business of teacher education to prepare teachers for survival outside the classroom?

Conclusions

EFA 2000 clearly raises the questions of manpower supply, quality of relevance of the education as serious challenges which teacher education needs to address. Quick methods of producing teachers will have to be employed but teacher education will have to guard and ensure that they do not compromise the quality of the product as this will directly impact on the quality of the EFA that will subsequently be delivered. The education will have to be relevant to the needs of the learner which we cannot accurately predict hence the teacher we produce must not be narrowly trained to handle specific pre-specified content, but armed with skills to identify the changing needs of the learner and to come up with appropriate teaching materials that are responsive to the learners' needs. The question arises, 'Are the teachers educators themselves able to offer such training?' As indications are that the majority cannot, it is necessary to mount reorientation programmes for the teacher educators themselves.

If a state is genuinely aiming at EFA 2000, it is only logical that it ensures the retention of its teachers by giving them attractive or at least reasonably competitive remuneration packages and conditions of service. Efforts in other areas such as population control have to be

redoubled to ensure that the demand for extra schools does not reach impossible proportions.

EFA is a noble ideal but the economic and professional demands that go with it must be anticipated and addressed now.

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The Demands of EFA 2000 on Teacher Education

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It is stated in the *World Declaration on Education For All* that the realisation of the: 'enormous potential of human progress and empowerment is contingent upon whether people can be enable to acquire the education and the start needed to tap in to the ever expanding pool of relevant knowledge and the new means for sharing this knowledge'. Article III, therefore, demands that 'basic education should be expanded, education opportunities will translate into meaningful development on whether people actually learn as a result of those opportunities'. The preamble to the World Declaration on Education For All states, among other things, that: 'more than 100 million children and countless adults fail to complete basic education programmes, millions more satisfy the attendance requirements but do not acquire essential knowledge and skills'.

It is expected that with expanded basic education services, teacher education should produce more teachers to meet the increased demand of the expanded educational services. However, in view of the purposes of the World Declaration on Education For All, it is not enough merely to produce more teachers. If the teachers that are produced are to be able to cope with ever-expanding knowledge, ensure that learners acquire essential knowledge, skills and values without which education for all will be meaningless, it is essential that teachers are specially trained for the demands of Education For All. The teachers that will be produced should be much more than mere

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teachers, they should also be adult educators and community developers.

The demands of EFA 2000 on teacher education should be expected to vary from one country and one culture to another. One can, therefore, not discuss in a short paper the demands of Education For All on teacher education in all the countries of Africa. In this Chapter, therefore, an attempt has been made to consider the demands of EFA 2000 on teacher education with special reference to Nigeria.

The Nigerian Case

In Nigeria, accessibility of education is a serious problem although the country's education policies since 1976 have placed emphasis on making education accessible to every Nigerian child. According to figures provided by Nigeria's Federal Ministry of Education, the population of primary school pupils rose from 8.1 million in 1976 to 14.6 million in 1983. In 1984, 1985, 1986 and 1987, primary school enrolments were 14.4 million, 13 million and 11.2 million respectively. The figures indicate that from 1984 when economic recession began to be seriously felt in Nigeria, primary school enrolment began to drop and it has since continued to drop. The drop-out of children who enrolled for primary education has been between 42 percent and 56 percent.

Although figures indicate a sharp rise in primary school enrolment, at least up to 1984, attainment at the end of primary school education is usually low and far from being permanent. Nwoltu (1991) surveyed opinions of parents, teachers, local government officials and officials of a state Ministry of Education and reported that the consensus was that the performance of primary school leavers in terms of their scores in the First School Leaving Certificate examination and the acquisition of basic skills for effective participation in the community, was unsatisfactory. The finding which was for a section of Nigeria is typical of the outcomes of primary education throughout the country.

Obemeata (1991) reported that out of 283 respondents to a questionnaire, 76 percent indicated that Nigerian secondary school pupils were not learning as much as was expected of them. In another study in which Obemeata (1992) examined the Senior Secondary Certificate Examination results for three consecutive years, 1988, 1989 and 1990,

in nine subjects, he found that performance was poor in all the selected subjects.

Reports of IEA studies in which Nigeria has been involved would seem to indicate that Nigerian children performed lower than children in the more advanced countries of the world. This and other findings would seem to confirm World Bank Report (1990) which indicated that secondary school pupils in developing countries learn very little, less than the national curriculum expects and less than secondary school pupils in the more advanced countries of the world.

Experience in Nigeria has shown that the quality of education and the learning achievement of learners depend largely, but certainly not entirely, on the competence and dedication of the teacher. The teacher has an important role to play in the shaping of his pupils. It should be appreciated, however, that the influence of teachers on their personal social and productive lives of pupils, reflects, to a great extent, the professional training which they have received. As Obanya (1981) pointed out, teachers are the major implementers of a country's education policies. They therefore, have to be well prepared for their job through sound pre-service and in-service training. Most people admit that there is need to produce teachers of high quality in order to ensure that an education system achieves its objectives. In Nigeria, the following have been outline in the *National Policy on Education*. (1981) as the purposes of teacher education in the country. The objective are to:

- 1) produce highly motivated, conscientious and efficient classroom teachers for all levels to our education system,
- 2) encourage further the spirit of inquiry and creativity in teachers,
- 3) help teachers to fit into the social life of the community and society at large and to enhance their commitment to national objectives.
- 4) provide teachers with the intellectual and professional background adequate for their assignment and to make them adaptable to any changing situation not only in the life of the country, but in the wider world.
- 5) enhance teachers commitment to the teaching profession.

A close examination of the five purposes of teacher education stated above would seem to indicate that teachers education in Nigeria is intended to produce effective teachers. Teacher effectiveness is a complex issue which largely explains why it has been defined differently by various researchers in the area. However, it suffices for the purpose of this chapter to say that the effectiveness of the

teacher is felt positively by pupils, the school and the community in which the school is situated.

If the objectives of Education For All in the year 2000 are to be attained, efforts should be made to produce teachers with the characteristics of effective teachers. By this is meant teachers who can use a variety of methods and techniques to teach their subjects logically and in sequence, follow the syllabus and keep to schemes of work, and teachers who can use various methods and techniques to determine the extent to which the objectives of instruction are being achieved.

Teachers in Nigeria have various shades of qualifications. In some sections of the country, there are unqualified teachers. These consist of secondary school leavers and graduates of polytechnics and technical colleges. Some others are trained for durations ranging from two to five years. Others are trained in colleges of education, institutes of education and faculties of education.

Whatever the category of trained teachers, the common complaint about new entrants to the teaching profession in Nigeria is that they are usually not adequately equipped to deal with the problems which teachers encounter in the course of their duties. They are said to be ill-prepared to undertake many of the day-to-day duties which are expected of the classroom teacher. Furthermore, doubts have been expressed about the level of academic attainment of the various categories of teachers. Another defect which has been observed in new entrants to the teaching profession is that although they may have mastered the academic and professional contents of the teacher education programme, they do not acquire the habit of reading. It is not uncommon to find teachers who since they left the training college have stopped reading. By so doing, they have not only ceased to add to the knowledge and skills which they had acquired during training, but also will forget, in due course, what they had learnt. All the defects of the newly qualified teacher which have been identified cast some doubts on the quality of the training which is given to teachers in Nigeria.

A number of factors have made it difficult for teacher education in Nigeria to produce effective teachers. One of these is the quality of those who come forward to train as teachers. Usually, those who enrol in the various categories of teacher training institutions are not the best materials. Obanya (1982) confirmed this assertion when in his inaugu-

ral lecture he stated that : [a large proportion of the persons who study education, even at university level, do so only after they failed to gain admission to the course of their choice. Many parents would advise their children to go into teacher training institutions only when they do not qualify for or when they are squeezed out of other courses].

Another reason why many of the products of teacher training institutions in Nigeria are of poor quality is that in Nigeria, as in many other African countries, many of those who are entrusted with the responsibility of training teachers are themselves not trained teachers.

If learning is to be improved in schools, fundamental reforms must take place in teacher education in order to ensure that suitable teachers are produced to run schools. The reforms should cover the academic and professional content of teacher education, continual in-service training and the encouragement of research into aspects of learning. It is important that teachers who train teachers must themselves be those who have been trained as teachers and should possess the qualities and characteristics which they expect of the teachers they have trained. They should be conversant with the sources of knowledge, skills and the methods required for transmitting information to student-teachers.

If teachers are to be effective in the performance of their duties, and capable of adapting to changing situations, they should be provided in the course of their training with adequate intellectual and professional background. It should be appreciated that the criteria and basic situation of the teaching profession have changed. Educating and stimulating pupils is steadily superseding the mere giving of instruction. It is, therefore, essential that conditions in which teachers are trained should be profoundly changed so that, essentially, teachers become educators rather than specialists in transmitting pre-established curricula.

Subject - Matter vs Professional Content

In the training of pre-service teachers, whether in Nigeria or in any other country in Africa, emphasis should be placed on the academic content of the teacher education programme. If teachers are to assist their pupils to acquire knowledge of certain subjects, they too must have a good knowledge of the subjects. Unless they do, they will be like the blind trying to lead the blind. It is essential, therefore, that the

academic content of the teacher education programme, especially for those who will teach at the higher level, should be increased and upgraded.

The professional aspect of the training of teachers should receive as much, if not greater emphasis as the academic content of the teacher education programme. Unfortunately, there are those who would seem to believe that once a teacher has a good knowledge of his subject, he should be able to teach it without being taught the methods of teaching. The professional aspect of teacher education is very important. It should aim at introducing student-teachers to the concepts and principles which are derived from those disciplines that are basic to education which are intended to serve as a theoretical framework to guide teachers subsequently in making professional choices and decisions.

Student-teachers are taught subjects such as psychology, philosophy of education and sociology of education in the belief that they are relevant to the immediate needs of the young teacher. However, it should be appreciated that student-teachers cannot become psychologists or philosophers in the limited time available and that they will have to embark on a lengthy period of subsequent study of the subjects if they have the ambition to become psychologists or philosophers. However, whatever is taught should be made relevant. Very often, teacher trainers teach these subjects without relating them to the classroom situation. In view of this, student-teachers tend not to see how the numerous education courses which they are taught are relevant in classroom situations. They tend to see them as isolated and independent courses which are learnt for their own sake. It is important that whatever education courses are taught in teacher training colleges should be made relevant to the immediate needs of teachers and the pupils under their care.

As a further means of reinforcing the professional content of the teacher education programme, professional ethics should be emphasised in the training of teachers. Courses such as educational administration, educational evaluation, supervision and inspection should be given greater attention than at present. Provisions have been made for these courses in teacher education programmes. However, they are usually poorly taught and hardly ever made relevant to classroom situations.

Practice teaching which is expected to provide an opportunity for student-teachers to acquire on-the-job experience and apply what had been learnt, is usually done haphazardly and badly organised. In order to ensure that new entrants to the teaching profession are adequately equipped to perform their role as teachers and to be able to cope with the problems that an apprentice-type training should be provided for student-teachers. The implication of this is that as part of the teacher education programme, student-teachers should be attached to professionally qualified teachers for specific periods. It is expected that during this period of internship or apprenticeship, student-teachers will acquire knowledge of the day-to-day tasks in which many new entrants to the teaching profession have been found to be deficient.

Unfortunately, this recommendation which, if implemented, could lead to a marked improvement in the quality of new entrants to the teaching profession, has not been given the attention which it deserves. Teaching, like other professions, requires serious internship.

Continuing Education

It is probably necessary to undertake a study to find out whether student-teachers who have high ability and attainment would turn out, after training, to be more effective teachers than those with low ability and attainment. However, it is likely that student-teachers with high level of ability and attainment would learn more and attain more during training than those with low ability and attainment.

Moreover, it is not good for the image of the teaching profession that it is the dregs among school leavers that choose to train as teachers. As a matter of deliberate policy, therefore, efforts should be made by Ministries of Education to encourage school leavers with high ability and attainment to enter teacher training institutions to train as teachers.

No matter how efficiently teachers are trained in teacher training institutions, there will always be areas of inadequacies and these should be remedied after training. Furthermore, knowledge and skills in the teaching profession, like other professions, are changing rapidly. Cropley and Dave (1978) asserted that : 'knowledge in some fields is doubling every 8-10 years'. In view of this, there is always the possibility that the professional could be out-of-date.

Furthermore, it is impossible that the training given in teacher training institutions could provide new entrants to the teaching profession all the vocational skills which will serve them throughout their teaching career. Teachers who are trained today are likely to remain in the teaching profession for another 30 years or more. As a consequence, teachers should have continuing education, not only in order to up-date their knowledge and skills, but also to acquire new skills in unforeseen areas, after the conclusion of their initial training.

If people are to be provided with the basic learning needs that will enable them to [survive, to develop their full capacities, to live and work in dignity, to participate fully in development, to improve the quality of their lives, to make informed decisions and to continue learning], teacher education programmes should produce teachers who are not only to teach in classrooms, but who are also community and rural educators. These should be teachers who are well adapted to the local conditions under which they will work. They should be skilled at initiating and organising a wide range of community development activities.

Since in most African countries rural population is substantial, it is essential that rural integration should be an important aspect of government policies. It is essential, therefore, that teacher education programmes should provide for the training of teachers that can bring about changes in the community. In the training of this type of teachers, effort should be made to help teachers acquire the skills and techniques to make learners desire change. Such teachers should in addition to being community conscious, should be imaginative, have the ability to do a good job, be willing to foster the attainment of community development and national objectives. Teachers should be trained in citizenship and should be able and willing to develop citizenship in those entrusted to their care.

In order to achieve these objectives of teacher education, it is necessary that the teacher education programme should be organised on more or less the same pattern as the UNESCO-assisted teacher training institutes established in some African countries. These had two main objectives :

- 1) To train teachers to handle primary education in an essentially rural country, and skilled as 'animators' able to play an effective part in community development.
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- 2) To give retaining and advanced training courses to personnel already at work: primary school inspectors, pedagogical advisers, secondary school teachers, headmasters and primary school teachers at all levels, so as to keep them informed on current pedagogical reforms and initiate them into new methods and techniques (Faure 1972).

What is being proposed here is that teacher training colleges should produce, not merely teachers, but teachers who are also community developers. The teacher education programme should serve as a means of training both pre-service and in-service teachers. It does not seem that the UNESCO experiment has been widely replicated in other African countries. It is necessary to re-visit the experiment.

Conclusion

One may hazard the generalisation that unless there is a change of emphasis in the method of training teachers, it will not be possible to produce teachers of mature calibre who are capable of having the desired effect on learners, the school and the community, teachers who are capable of contributing to the solutions to national problems. What is required for Education For All is not just an increase in the number of teachers to cope with increased school population as a result of expanding education services, but increased number of teachers, majority of whom are of high quality, people who are capable of mature, creative, independent thinking, conversant with both national and educational priorities and of the needs of their learners, knowledgeable in the subjects they teach at the same time capable of communicating materials clearly to learners according to their ability.

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The Teaching Profession in Africa and the Challenges of the 21st Century

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This chapter begins by casting a glance at the 21st century (drawing upon the signs which can already be read), and outlining its most likely features. The paper will attempt, as much as possible, to highlight aspects of the easily discernible features of the 21st century which are likely to pose serious challenges to Africa. We will then focus on education-specific challenges before discussing the expected role of teachers and of teachers' organisations. Our purpose is to situate the challenges that teachers are likely to face in the 21st century in their proper, global context.

The World Scene in the 21st Century

Present-day trends (in different spheres: socio-economic, political, scientific, technical cultural, etc.) point to a world of the 21st century in which human beings would have made tremendous progress, but in which they will not necessarily lead a happier, more fulfilling life.

On the *political plane*, the dreams of the 1990s have tended to focus on three major areas: the promotion of peace, the consolidation of democracy and the strengthening of international solidarity. Efforts to promote peace can be seen in the passing away of the cold war, in efforts by the UN to give a forefront position to its "agenda for peace", in the

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happy end of apartheid, and the emerging climate of peace in the Middle East.

The end of the cold war has however not put an end to illegal arms trade. It has also tended to turn communal conflicts more in-wards (as can be seen in the internal conflicts in to old Yugoslavia, Angola, Mozambique, Somalia, Burundi and in the recent catastrophe in Rwanda).

Democracy (seen simply as 'multipartism') may have made some progress in different parts of the world. When however, the concept is examined in its true sense of free participation of peoples in matters concerning their welfare and governance, and free choice of leaders through free electoral processes, the feeling is that a lot still remains to be done.

Old rulers have, in many cases, been returned to political power through the new (supposedly democratic process), but have continued to operate with their old despotic methods. The terms 'opposition' has crept into political usage everywhere to mean 'those who will never come to power' and 'those who should always be poised to fight the establishment'. Worse still, external interference has ensured that political leaders are still dictated to (instead of being freely chosen by) the populations of many Third World countries.

International solidarity, which has been a universal dream for ages, was given greater push in the course of the present century. The period since the Second World War has been particularly creative in establishing the United Nations Organisation and its various agencies. This same period has also witnessed the creation and the strengthening of regional and sub-regional organisations in all parts of the world.

There has however been a wide gulf between intentions and realities in this particular case. In Africa, sub-regional organisations have been too numerous to be viable. They have tended to emphasise big meetings and grand projects at the expense of the genuine promotion of regional integration, and every year sees the adoption of plans of action and of treaties the deadlines for the implementation of which keeps shifting indefinitely. The same can be said of similar regional organisations in Asia, the Arab World, and Latin America. Most of these function only as institutions and not really as viable mechanisms for promoting regional integration.

The European Union is however at a different level of functionality. It has been growing in strength lately. The same can be said of the G-7/G-8, which seems to guard its common interests jealously and which hardly makes its internal problems known to the un-initiated.

Within the international organisations, the ideal is that all nations should be equal. The reality however is that the better established, more industrialised, and richer countries are more equal than others. Their economic and industrio-technical power seem to confer on them political powers much weightier than their share of the world's population, or their share of its natural resources, or its land mass.

The indications, therefore, are that the 21st century will still see a world in which politically, the strong nations would wax stronger while the weaker nations remain only fledging democracies. It is likely that the hope for a global village would still remain strong, but it could remain a village heavily tilted towards the whims and caprices of the stronger nations.

On the *economic* plane, one can imagine a situation still closely related to the political one just described. The emerging trend is one of continued impoverishment of the poorer countries, a possible rising economic strength of the Asian tigers and a few other nations and of limited opportunities for real economic growth in the industrialised nations.

Of all the economic problems of the poorer nations, the *debt burden* is likely to have the most debilitating effects in the 21st century. With just five years to the end of the 20th century, one cannot see any end in sight to this problem. It is in fact getting worse and worse, as whatever is earned as foreign exchange is used for debt-servicing. The gains of structural adjustment programmes (SAPs) have not been felt on the ground, even in those countries that are acclaimed for having followed all the necessary World Bank and IMF prescriptions.

The progress of the Asian tigers will depend on a number of factors: political stability within the region, the evolution of the politics and the economy of Japan, and the extent to which their industry remains competitive, in comparison to the situation in North America and Western Europe. Since the latter, forces are likely to remain strong, it would require economic wonders on the part of the newly rich Asian countries to maintain reasonable standards in the 21st century.

Current trends do not signify economic happiness for the rich, industrialised countries either. There is an extent in which economic prosperity in these countries is dependent on the level of purchasing power in the less developed world. With increasing indebtedness in the poorer countries, their capacity to pay for imports is likely to fall, while production of export in the richer countries is likely to suffer.

Demands for social services, of all kinds, are also likely to rise in the richer countries. The increasingly ageing population will require care. So, will the increasing number of skilled persons without jobs and the increasing number of middle aged workers likely to be rendered redundant in work places by new technologies. In addition, a sophisticated society tends to make increasingly sophisticated demands on its governments. Such demands could, in the 21st century, force governments in the richer countries to look more inwards, to cater more for the social needs of the people. A likely fall-out of such a change could be reductions in military and external assistance programmes.

In summary, world economy in the 21st century may not in anyway be rosy. There could be more money, more goods, more services, but not necessarily more wealth. The poorer nations, and the poorer sectors of the populations of richer nations are however likely to suffer more from the serious economic stagnation which the world is likely to witness.

On the *scientific and technical planes*, the world of the 21st century is likely to go very far indeed. Current developments in bio-technology, space research and information technology already raise high hopes for improvements in communication, medicine, agriculture, weather forecasting, advanced warning systems, nutrition etc. These can help humanity solve some of today's problems, like those related to drought, food preservation, and a better understanding of cancer, cardio-vascular diseases and possibly AIDS.

The extent to which the envisaged developments in science and technology are going to be of use to humanity will however depend on a number of other factors. First among such factors will be the extent to which future exploitation of natural resources respects the human environment. Second is the extent to which politics is allowed to interfere with science. If human problems are studied from the scientific angle and their progress is impeded by political in-fighting,

the chances of pushing knowledge forward for the benefit of humanity is likely to be absent. A third consideration is economic. Scientific research and its technological application are expensive ventures. In situations of economic prosperity, funding for research and development (from government and private sources) is relatively easy. Economic and financial situations have therefore to be cleaned up by the 21st century, as a way of releasing funds for the development of science and technology for the benefit of the world's citizens.

On the *cultural plane*, the 21st century is likely to be one of multiple interactions. In the Western world, the age-long (classical) values and creative arts are likely to interact more with popular culture, which is now being propagated more and more vigorously by the media. Western culture is also likely to take on more influences from the non-Western world. Westernisation of other cultures will likely continue, with the spread of free-market economy and the opening up of other cultures into the fold of tomorrow's global village. This may likely lead to mutual enrichment among cultures.

Mutual interaction of cultures, in the geographical sense, is also likely to be accompanied by interactions with science and technology-induced culture. This will come about as more and more people get exposed to the television, to computers, and to other scientifico-technological influences on society. This is already happening in the field of music, with greater 'stereorisation' of traditional instruments.

Patterns of inter-personal relations are also likely to change in many places. The growth of mega-cities, increases in migration, the increasing need to meet one's immediate financial needs, the increase in the numbers of telephones, radios, etc. could lead to less personalised forms of interaction. This will certainly have its social and psychological repercussions.

From the above discussion, one can infer that the world in the 21st century will certainly have its wonders. It is not however certain that these wonders would change the world too drastically. The dreams of peace, international solidarity, scientific and technical progress, economic prosperity, wider participation in cultural development, and consolidation of democracy will continue to be dreamt. Efforts will be increased to attain these goals, but the wounds of the 20th century could still remain largely unhealed.

What Specific Challenges for Africa?

Whatever the likely problems of the 21st century, the world will be striving for a great leap forward. Within this context, and given Africa's current problems, the challenges for Africa will be two-fold: to *survive* and to *belong*.

To *survive* means that Africa has to get out of its current problems. That means, first and foremost, that genuine democracy must be allowed to take root and to thrive within Africa. The basic ingredients of these are well known:

- freedom of expression and of association;
- institutions that guarantee fundamental freedoms and human rights;
- institutionalisation of consultation and dialogue as means of consensus-building and decision-making;
- existence of legislative and judicial institutions each with its specific powers;
- freedom to choose one's leaders and freedom to change them, when necessary, through free and fair elections;
- an acceptance of the fact that being out of government does not mean not belonging to being part of one's society.

The democratisation process currently on in Africa is yet to go this far. For Africa to really survive, there is need for a greater democratic push, to release the creative energy of Africans for development, through every citizen's freedom to contribute ideas and to evolve developmental goals as goals of the people by the very people themselves.

To survive also means that Africa has to get out of its current economic mess. Ways of doing this have been widely recognised since the early 1980s in the *Lagos Plan of Action* in the UN recovery programmes for Africa, in ECAs *African Alternative Framework to Socio-Economic Recovery*, in the *Abuja Treaty on African Economic Integration* of the OAU and in many other well-thought-out documents. What has been lacking is the will to reform the economy from within. It is in fact this refusal to reform from within (eliminating waste and corruption, mobilising the people to invest their energies in national development, doing the first things first by investing in education, health, agriculture, housing, etc.) which has resulted in externally-imposed structural adjustment programmes.

In these political and economic spheres of survival, the international community owes a responsibility to Africa. First, Africa's international friends should help to ensure that democracy is operated the way it ought to operate, by not interfering in the people's choice of

their own leaders. Secondly, international economic co-operation should always put the people's welfare first. It is only a well motivated, educated, healthy and vibrant population which can build up an economy. Enslaved, ill-motivated, technically and intellectually ill-equipped, malnourished, and poorly housed populations and governments labouring heavily under the debt burden cannot build any healthy economy.

This is why the international community has to shift to the type of structural adjustment which should focus on fairer terms of trade for Africa. Such a structural adjustment programme should also closely and critically examine Africa's debts to separate real from doubtful debts, to convert some of the real debts into investment stocks in human welfare, to write-off those which are "unpayable", to re-schedule in a humane way whatever remains in terms of genuine debts, and to eliminate further indebtedness.

In addition to simply surviving, Africa also needs to *belong*. The envisaged global village of the 21st century must not be allowed to have slums in its fringes. Africa must not allow itself to become the abode of such slums and should not put itself in the fringes of the 21st century. How to ensure this is perhaps the greatest challenge that Africa will have to face in the very near future. To belong, Africa needs to bridge the *development gap* which now exists between her and other regions of the world. This 'catching up' can best be done through investment in the development of Africa's human resources, in the broadest sense of the term. Most of the task to be carried in this area are in the field of *Education* in its informal, non-formal, and formal contexts. The challenges for Africa in this sphere are enormous, as the following discussions would show.

The Purely Educational Challenges

The challenges facing Africa in the area of education can be summarised in the expression PROVIDING EDUCATION FOR ALL ITS CITIZENS. We can examine this expression in greater detail by (a) specifying the 'education' and the 'All', (b) specifying what should go into and come out of every form of education, (c) specifying the right type of educational professionals to promote Education for All, and (d) specifying the nature of investments required for the promotion of Education for All.

What 'education' for What 'All'?

It should be understood that what Africa needs to catch up with the rest of the world in the next century is to promote vigorously EDUCATION FOR ALL. Education, in this context, (like in every other context) implies providing for the identification and systematic development of all forms of socially useful talents, skills and potentials (in keeping with African cultural values and its needs for sustainable socio-economic development) in all places, among all classes of persons, at all stages of life.

In practical terms, this means that HOMES in Africa should be helped to play their primary roles of enculturation and laying a solid foundation for life-long education. It also means that parents (particularly mothers) should be given opportunities for continuous self improvement and be educated in those things (nutrition, hygiene, child care and nurture) which make for child survival and early childhood stimulation and meaningful socialisation.

Next to the home comes the immediate community, which should be mobilised to develop its own structures and mechanism for socialisation and the nurturing of skills and talents. Whatever the nature of a community (poor, rich, rural, urban), there are structures for inculcating socially acceptable values (extended families, places of religious worship, recreational activities, etc.). Every society also has facilities for developing skills (traditional apprenticeship systems, sports and games, community services etc.). These can be created (using traditional methods) where they do not exist, and strengthened, where they already exist in some form.

In this connection, urban areas will require special attention. These are meeting grounds of persons of diverse background. They are often disadvantaged, in terms of welfare facilities. Over-crowding makes recreation facilities impossible to locate. Other social ills (crimes, drug abuse, violence) require special attention and socio-educative activities can be one way of improving the quality of life in such places.

Rural, isolated and remote areas will also deserve special attention. In this connection, the best use should be made of existing social structures (the extended family, traditional patterns of learning, like Koranic institutions and age-grades). These will have to be enriched through the inclusion of 21st century survival needs: literacy, numeracy, graphicacy, manipulative-technical skills, basic nutri-

tional knowledge, improved agricultural practices, improvement of local crafts, and all possible learning-to-learn skills.

What we have been saying is that *an improved informal structure* would be the best foundation one can lay for a strong basic formal education structure for 21st century Africa. Enlightened homes, closely knit to form enlightened communities, would be a good first step in this direction. Communities and homes, in different locations and circumstances, will need to be covered, as Education for All implies no exclusion and no marginalisation.

It needs to be emphasised here that marginalisation and exclusion can cover all social classes. It is not often recognised that the children of the African elite class are running the risk of becoming a marginalised class. Armed only with English and French language skills, they are excluded from the rich culture for which African languages are the major vehicle, thus becoming an uncultured group. Shielded from the harsh physical and economic conditions of the rest of Africans, they run the risk of being unable to cope with the realities they are likely to face in the real world of Africa. And, educated out of context in private schools, there is no way they can become real leaders in the future in communities to which they have never belonged. The lesson then is that socially and culturally relevant socio-educational facilities are needed for the privileged. At the same time, scientifically and technically enriched facilities will be needed for a 21st-century-oriented early childhood socialisation of the less privileged in Africa.

Formal Education for all has its basic and post-basic components. The first can be regarded as the CORE, while the second could be regarded as the ELECTIVES. In its *basic form* (meaning the education provided in institutions of learning to children and adolescents), the important point is that it should be *accessible*. Accessibility has its physical, psychological, and socio-economic dimensions. In physical terms, educational institutions must be near enough to places where the populations are concentrated. Psychologically, what goes on in schools should not push out any group of learners (i.e.; the special needs of all groups of learners should be taken good care of). Socio-economically, schooling should be affordable, so that children from poor socio-economic backgrounds are not excluded.

Post Basic Formal Education should cover the conventional forms of general secondary, technical and higher education. This should how-

ever be complemented by various forms of education of the non-conventional type. This calls for innovative approaches in catering for the needs of persons whose needs may not be of the purely intellectual type.

Africa, to catch up with the 21st century, will in fact need to cancel off its present educational deficit of catering mainly for the intellectual needs of its citizens. What is worse is that even these intellectual needs have been poorly catered for.

For the 21st century, African education has to care more for the 3Hs (the *head*, the *heart*, and the *hands*). Basic education should give equal attention to each of these 3Hs, as a means of laying a solid foundation in each person for *thinking*, *caring*, and *doing*. At the post-basic level, programmes are needed which are so diversified in nature as to care for the needs of three main groups of individuals as shown in Figure 15.1

Figure 15.1 A Scheme of Comprehensive Post-basic Education for the 21st century

	The head	The heart	The hands
THINKING (The <i>intellectually-oriented</i>)			
CARING (The <i>artistically-oriented</i>)			
DOING (The <i>technically-oriented</i>)			

What Figure 15.1 tries to illustrate is that every society will have persons whose orientation is not intellectual. There will be artistically and technically-oriented individuals as well. A comprehensive post-basic education should care for all these types of persons.

The current practice of caring only for *the head* (the *intellectually-oriented*) will need to be improved in two main directions: adequate exposure to *the heart* and *the hands*, and the development of appropriate heart-oriented and hands-oriented programmes to cover the needs of all citizens.

This is a great challenge indeed, for it requires new types of secondary and post-secondary education. It requires persuading both the citi-

zens and governments to experiment on new approaches. It also requires capitalising on out-of-school, societal structures, the abundance of which Africa has tended to ignore.

Education for All in the 21st century will also have to cater for the needs of *persons well past school-going age*, or persons who missed schooling for one reason or another. In the African context, this will cover a wide-variety of groups, whose learning needs are outlined in Table 15.1.

Table 15.1: A scheme of EDUCATION for All Out-of-school Groups

Group	Major Learning Needs	Suggested Socio-Educational Provisions
I. Illiterate Adults	Basic literacy in its various forms	Basic literacy programmes tied to civic, social, scientific and technical survival needs
II. Neo-Literates	Literacy consolidation	Reinforcement of basic literacy skills. Acquisition of basic technical, social and learning-to-learn skills
III. Persons who have not reaped the full benefits of formal schooling	The needs of groups I and II above <i>plus</i> attainment of basic education level	Provisions similar to groups I and II above with emphasis on learning-to-learn skills
IV. The unemployed and other persons without useable or saleable skills	- Skills training - Entrepreneurship	- Exposure to continued general education - Job-related skill improvement programmes - Learning-to-learn skills
V. Workers, and self-employed persons	- Consolidation of previous knowledge - New skills needed for improved on-the-job performance	- Exposure to continued general education - Job-related skill improvement programmes - Learning-to-learn skills
VI. The already EDUCATED	- Survival needs not catered for by the educational system - Adaptation-to-life skills	- Exposure to new ideas and new technologies - Learning-to-learn skills
VII. The old, the retiring	- Adaptation to middle and old age - Adaptation to changes in life demands	- Personal care - Health education - Entrepreneurship

Table 15.1 infact provides a part of the answers to the question raised earlier in this presentation: WHAT EDUCATION FOR WHAT ALL? All categories of persons out-of-school will be catered for in a programme of education, sufficiently differentiated and adapted to the needs of specific groups in specific places. Formal education will be provided in the form of a CORE that gives equal attention to the head, the heart and the hands. Post-basic education will be broadened to cater for the needs of the intellectually-oriented, the artistically-oriented, and the technically-oriented. Above all, homes and communities will be supported and developed to lay the foundations of education and to support it in all its facets.

In summary, EDUCATION will mean developing all possible aspects of the human potential in all groups of people, in all types of conditions, and at all stages of life. While skills will be inculcated in all forms of education, the emphasis in all cases will be on learning-to-learn skills.

The *Education of Women and Girls* will have to be given special attention in all programmes of Education for All. Women represent more than a half of Africa's population and no meaningful education programme can neglect half of its population. Secondly, the multiplier effect of women education is high, as educated women (through their actions within the family and the improved skills and status that Education confers) are better able to complement the work of the school in the task of educating and in raising the quality of family and societal life.

In addressing the issue of the education of women and girls, every care should be taken to address the question of access in its social and psychological forms. Thus, we should go beyond merely sending girls to school. Every effort should be made to take care of their special needs in school, so that they can remain in school and, more importantly, succeed in school. Girls should also be given equal opportunities to boys in terms of curriculum exposure (i.e. being exposed to the same areas of study as boys). In addition teachers, teaching methods and materials should not contain any moves that tend to spite girls, to assign them inferior roles or to discourage them from developing all their potentials.

In the out-of-school setting, WOMEN AND WOMEN ISSUES need to be given special emphasis, for the reasons already given. First, the

majority of illiterates are women. Their potentials to contribute to societal development can be released through appropriate forms of education. Secondly, no democracy can be meaningful if it neglects the needs of the majority group in its population.

How Should we Educate for the 21st Century and with What Tools?

Africa's educational response to the challenges of survival and belonging which it has to face in the 21st century would require a curriculum which is (a) culture-rooted and African values-loaded, (b) open to external influences, analytically borrowed and critically adapted to Africa's needs, (c) creativity-driven, and (d) integrated to bring together various forms of learning experiences.

A Culture-rooted Curriculum

Education in Africa, to be worthy of the name, should go back to the basics and emphasise the primary role of education which is ACCULTURATION. This can be done by promoting basic education through the medium of African languages. The use of African languages will also include the values, the thought patterns, the history, the traditions, the visions of the world vehiculed by these languages.

African cultural values can also be inculcated in other ways, like the organisation of school work using co-operation and building the team spirit. The use of traditional forms of story-telling, of illustrating, of communicating can also be useful here. The same will be true of the learning and teaching of African sports and games, the values of African food, African approaches to health care and the adaptation of all school subjects to the needs of the immediate environment.

A Curriculum Open to External Influences

For Africa to really belong to the world of the 21st century, she has to be open to external influences. What will be needed is a systematic and vigorous system of pushing back external negative influences. The first approach here is for the school curriculum to be deeply rooted in Africa's cultural values. This is because a people who knows itself will be better able to decide what is not good for it.

One way of opening up to external influences will be the intensified teaching of English and French. This will however follow-up on a solid foundation in African languages. Such a solid foundation is a

way of producing Africans who will not equate Music mainly with Mozart, Drama mainly with Shakespeare, Poetry mainly with Victor Hugo, the Novel mainly with Dickens, nor History mainly with non-African civilisations, or Science and Technological as simply Western concepts. The grounding on African cultural values will serve to show that all these have always been part of African life and that new ideas from the outside will be useful only to the extent to which they help to enrich what Africa has always possessed.

A Creativity-driven Curriculum

The 21st century will be a time when subject-matter knowledge will not be the most important objective of a curriculum. This is because the knowledge explosion phenomenon is likely to accelerate further during that century. Another reason is that every person will be expected to be a problem solver, as challenges in various spheres will be posing threats to human existence. What is more, Africa will have to join the world of persons who think, who invent, discover and create.

In practical terms, how can one ensure a creativity-driven curriculum? First of all, the term 'creativity' has to be demystified and understood in its true sense of the ability to question, to examine critically, to seek alternative possibilities, and to venture. Second, the point must be made that even though creativity is a high order cognitive trait, it can be inculcated at all levels and in all forms of Education.

In the school setting what is required is a shift from TELLING to GUIDING in all teaching-learning activities, as illustrated in Table 15.2

It can easily be said that the call for a shift from 'Telling' to 'Guiding' is not new. It is a recapitulation of what has been said over the ages by pedagogues. It is also the underlying practice in African forms of traditional education.

An Integrated Curriculum

To include everything that has to be learnt as a distinct discipline in a 21st century curriculum would amount to *curriculum overload*, and no school will be able to carry such a load. What will be needed is a more integrated approach to curriculum organisation which will emphasise the skills to be developed and which will draw from various possible disciplines in seeking solutions to specific problems.

Table 15.2: 'Telling' vs 'Guiding' as Teaching-Learning Approaches

	TELLING	GUIDING
<i>Material</i>	Usually a prescribed textbook followed 'logically' from page to page, chapter to chapter	Usually a wide-variety of materials (text and non-text) with out-of-class activities complementing textbook-oriented work
<i>Teacher</i>	<ul style="list-style-type: none"> - Uses mainly TALKING as teaching method - Does most of the talking - Sees a quiet classroom as evidence of learning 	<ul style="list-style-type: none"> - Sets the scene and engages learners in a variety of ACTIVITIES - Encourages LEARNER PARTICIPATION - Makes maximum use of learners previous knowledge
<i>The Learner</i>	<ul style="list-style-type: none"> - Listens attentively - Takes notes, as dictated by the teacher - Engages only in assignments dictated by the teacher - Talks only when prompted by the teacher 	<ul style="list-style-type: none"> - Contributes to classroom discussions in various forms, even disagreeing with the teacher - Also initiates activities, without prompting from the teacher - Takes notes in an analytical manner
<i>The Teaching-Learning Process</i>	<ul style="list-style-type: none"> - Frontal Teaching - Memorisation and rote learning - Emphasis on facts, figures, recitation 	<ul style="list-style-type: none"> - More variety in classroom organisation, to suite different purposes - Emphasis on analysis and creative thinking
<i>Expected outcomes of Teaching and Learning</i>	<ul style="list-style-type: none"> - Knowledge of subject matter - Coverage of syllabus 	<ul style="list-style-type: none"> - Improved love for learning - Improved learning-to-learn skills - Novelty of approaches rewarded

Thus, the current trend of always 'including' new ideas and new problems in the school curriculum should be replaced by one of 'integrating new human concerns' into existing curricula. In practical terms that will mean that all existing subject disciplines can be re-grouped into five major areas, as follows:

I.	Social, humanistic and cultural studies	history, geography, economics, politics, sociology, religion, etc.
II.	Mathematics, natural sciences and natural resources	mathematics and its applications, biology, chemistry, physics, geology, space science, etc.
III.	Language, literature, and human thought	language, literature, philosophy, etc.
IV.	Creative and performing arts	music, fine arts, drama etc.
V.	Applied arts, science and technology	technical/vocational disciplines and their socio-economic foundations

Programmes of basic education should emphasise these five areas, (as CORE, as already suggested). In post-basic programmes, the emphasis will vary to meet the orientation and needs of specific groups of learners.

In every subject area, the emphasis will be on methodology, on general principles, on processes, and on practical application of what is learnt. This will be in itself a way of teaching for creativity and of developing learning-to-learn skills.

The Education Professional Needed for the 21st Century

The challenges of education in the 21st century cannot be fully met until they are translated into school and classroom 'do-ables'. Progressive ideas can be implemented only by persons who have been deeply involved in the development of such ideas and who therefore have internalised their objectives and basic principles.

That is why the 21st century teacher in Africa has to be a *professional educator* in every sense of the term. Being a professional has at least five components (a) aptitude, (b) education, (c) training, (d) comportment (e) social status. All of these components will have to be present in the future teacher. For already serving teachers, career development programmes should be developed to cater for the components that may be missing in given groups.

The preparation of the professional teacher has its *vertical* and *horizontal* dimensions. Taking care of the vertical dimension, means providing pre-service education for the would-be teacher and ensuring the teacher's continued, professional development through a programme for career-long professional and general education. Closely linked to the vertical dimension, the horizontal dimension of teacher preparation involves broadening the teacher's horizon as

preparation for other *teaching roles*, like school headship and service in various forms to the educational system (inspection/supervision, curriculum development, guidance/counselling, etc.)

Table 15.3: A Teacher Professionalisation Programme for the 21st Century

I. SELECTION [Decisions on who should be admitted to teacher education programmes]	- Based on good level of general education good social standing and proven aptitude for teaching
II. INITIAL PREPARATION [Education and Training characterised by <i>rigour</i> , the development of <i>creativity</i> and <i>analytical skills</i>]	- High level, broad general education - Specialised, indepth education in a given subject area - General exposure to educational science principles - Indepth pedagogic knowledge
III. INTERNSHIP [Concurrent or consecutive]	Systematic supervised apprenticeship in various teaching talks (classroom and out-of-class activities)
IV. CERTIFICATION [Being licensed to teach or being refused licence, if need be]	Based on results of initial preparation and internship, plus prescribed minimum period of on-the-job post-qualification experience
V. CAREER DEVELOPMENT	Systematic, sustained exposure to ideas, knowledge, techniques to meet changing career needs
VI. COMPORTMENT [Giving pride to the profession through subscription to appropriate value systems and behaviour patterns]	- Professional Code of Ethics/Behaviour/ Dressing - Subscription to a professional oath - Love of learning and interest in continuous self-improvement - Commitment to Education - Improved life style and general enlightenment
VII. STATUS [Social recognition, social prestige, self esteem]	- Social recognition of the professionally specialised role of the teacher - Incentives and reward systems and living standards comparable to other liberal professions - Pride in oneself and in one's profession - Commitment to the defence of Teachers and of Teaching

Table 15.3 summarises what one would expect of a teacher professionalisation scheme in the years to come, if Africa is to evolve an education programme that can meet the challenges of the 21st century. The usual reaction to suggestions such as these is that the teachers are simply not there and that stop-gap measures will therefore continue to be necessary. What makes such an argument untenable is that it has never been applied to other professions. Moreover, the stop-gap measures have not produced real teachers not by calling, nor by training, nor by anything else.

What Role for Teachers' Organisations?

African teachers' organisations will, in the years to come, have to rise to the challenge on ensuring that Education does not fail in Africa. They will have to continue with their dual role of defending *the conditions of teachers* and *the conditions of teaching*. In practical terms, this (in the Africa setting of the 21st century) translates into the following concrete actions, couched in the form of a slogan.

- i. Teachers should get organised and united, *to have grassroots presence* and so be involved in educational development action from the most basic level (the individual school, the local community, etc.) upwards.
- ii. Teachers should get organised and united *to arm themselves with knowledge and the analytical skills* needed to understand new developments around them, to be able to join other sectors in examining development issues, including issues related to educational development.
- iii. Teachers should get organised and united *to take steps to professionalise teaching* and to fight hard for societal recognition of the status of teachers.
- iv. Teachers should get organised and united to take steps *to change teacher mentality in terms of more progressive ideas on Education, improvement self esteem, the exhibition of professional pride and assertiveness*.
- v. Teachers should get organised and united *to have a VOICE in national issues*, and most especially to become the respected authority in matters concerning Education, Teachers and Teaching.
- vi. Teachers should get organised and united *to engage in sustained, systematic studies of the people's educational needs*, and become that pressure group always prepared to offer alternative policies and approaches, as a result of *teacher's monitoring of the educational progress of each nation*.
- vii. Teachers should get organised and united *to be involved in the entire labour and professional workers movement, as a strong force*, as a means of influencing all other groups to press for the development of Education, a pre-condition for development in all other socio-economic sectors.

This is a tall order indeed. What it entails is that teachers' organisations should get better organised, run their own affairs democratically,

build up the knowledge and professional skills of their members, and give themselves a voice in national affairs. If teachers organisations do not get themselves organised others will impose an organisation on them. Other groups, usually non-education professionals, will continue to dictate what happens to education, and the present mess will continue. The 21st century Education in Africa cannot continue to mess up its educational system.

Conclusions

This chapter has sketched the challenges facing Africa in the 21st century and how these translate in to education-specific challenges and how teachers should get organised to face these challenges. The suggestions made in the course of the presentation for getting Education to All Africans in the 21st century look over-ambitious, like a mere dream, and even unrealistic.

Questions can be raised as to whether due account has been taken of the huge figures and the large numbers involved. It may even be said that the question of funding has been treated too lightly. It may also be wondered why a step-by-step approach was not considered.

A good reaction is that it is the very survival of Africa that is at stake. The issue is how can Education be made to enable Africa survive into the 21st century and to join the rest of the world in belonging to that century. This *survival* and *belonging* will require improved scientific, technical, and economic strength. We feel that EDUCATION IS THE ONLY ANSWER here and that TEACHERS SHOULD PRESS FOR NOTHING LESS. The prize to be paid for neglecting Education (as Africa prepares to enter into the 21st century) is to continue to remain in the class of the marginalised and the excluded.
