

THE MWALIMU NYERERE FOUNDATION (TANZANIA)  
In collaboration with the  
UNIVERSITY OF VENDA FOR SCIENCE AND TECHNOLOGY  
SOUTH AFRICA

NYERERE WEEK CONFERENCE  
AN INTERNATIONAL CONFERENCE ON AFRICA'S ROAD MAP TO  
DEVELOPMENT AND SELF-RELIANCE: REALITY OR MYTH  
GOLDEN TULIP, DAR ES SALAAM 22<sup>nd</sup> - 23<sup>rd</sup> APRIL 2004

PAPER:  
Transforming Education in Rural Africa: Challenges and  
Possibilities

By

Prof E.L.M. Bayona  
University of Venda for Science and Technology

**NYERERE WEEK AND CONFERENCE**

**APRIL 19 - 23, 2004**

**DAR-ES-SALAAM, TANZANIA**

**TRANSFORMING EDUCATION IN RURAL AFRICA :  
CHALLENGES AND POSSIBILITIES**

**BY**

**PROF. E.L.M BAYONA  
UNIVERSITY OF VENDA  
FOR SCIENCE AND TECHNOLOGY**

**SPONSORED BY**

**THE MWÁLIMU NYERERE FOUNDATION  
AND  
THE UNIVERSITY OF VENDA  
FOR SCIENCE AND TECHNOLOGY**

**2004**

## TABLE OF CONTENT

	<b>PAGE</b>
1. Introduction .....	1
2. Conceptual framework .....	3
2.1 Transformation .....	3
2.2 Teachers and curriculum decision-making .....	4
2.3 Teacher education .....	7
3. Challenges for transforming education in rural Africa .....	8
3.1 Education for all.....	8
3.2 Unsupportive external environment .....	10
3.3 Unsupportive internal socio-economic environment .....	10
3.4 Knowledge and skills by teachers .....	10
3.5 Flexibility and relevance.....	11
3.6 Coordination .....	11
3.7 Infrastructure and resources .....	12
4. Conclusion .....	12

**TRANSFORMING EDUCATION IN RURAL AFRICA :  
CHALLENGES AND POSSIBILITIES**

**PROF. E.L.M BAYONA  
UNIVERSITY OF VENDA FOR SCIENCE AND TECHNOLOGY  
PRIVATE BAG X5050  
THOHOYANDOU  
REPUBLIC OF SOUTH AFRICA  
E-mail : Ebayona@univen.za.za**

---

**1. INTRODUCTION**

Many of us, Africans, regard the 21st century as the epoch of the rebirth or reawakening of the African continent. The African Renaissance is currently taking shape in the form of various initiatives such as the New Partnership for Africa's Development (NEPAD), and the creation of the African Union (AU) with its own Parliament. It is also taking shape in the form of improved communications, the installation of bulk infrastructure such as electricity and water, leadership training, use of advanced technology and the empowerment of people in rural areas (Cull, 2003). In the background of the idea of the rebirth of Africa is a search for the true identity of the African person as an individual and a human being.

The process of transforming education in rural African schools poses tremendous challenges to Higher Education (particularly Teacher Education) and teachers, several of which are related to the curriculum. Teacher Education, for example, can obviously not be business as usual while Africa is being reborn. Teacher Educators in a post-colonial Africa are being asked to reconceptualise and re-design their programmes to respond to new conditions in Africa. To be relevant for African conditions and global interests, Teacher Education can no longer be based on the tenets of colonialism and

tradition. Teacher Education in the context of the rebirth of Africa has to assume new and unique proportions and qualities.

Similarly, teachers (especially those in rural areas) can no longer stand on the periphery and be onlookers in regard to transformation decisions taken for them. They must be active participants in the process of curriculum decision-making and development. Successful implementation of curricula reforms and transformative decisions depend in the final analysis on the teachers, and therefore, they must be at the heart of the process.

This paper addresses the need for renewed and active participation of Teacher Education Institutions and school teachers in the process of transforming education in rural Africa. Special attention is directed to the role of teachers in curriculum decision-making and development, and how Teacher Education should be conceptualised to meet the emerging needs and challenges of teachers in rural schools. The literature reveals that the process of transforming education through teacher education and curriculum development, at least in most African countries, does not support effective teacher participation, and that changes are needed to effect higher levels of teacher involvement. The central theoretical argument throughout this presentation is that since the African Renaissance is causing Africans to look differently at themselves and their conditions, and inspiring them to reassert themselves in the global context, we are compelled to reconceptualise Teacher Education and the role of teachers in keeping up with changes that are taking place. Prospective teachers should be educated not only to understand the changes that they and their learners are undergoing but should become change and transformation agents themselves.

The presentation begins by creating a conceptual framework in connection with the concepts of transformation, teachers and curriculum decision-making and development, and teacher education. This is followed by conditions and challenges that have to be faced in transforming education in rural Africa. Lastly, is the conclusion in which recommendations are made on how Teacher Education programmes and rural African

teachers may become more supportive and relevant in the process of educational transformation.

## **2. CONCEPTUAL FRAMEWORK**

### **2.1 TRANSFORMATION**

It should be stated right at the outset that some people view the term "transformation" as a concept or process that may stir negative emotions. In this paper the term "transformation" is seen as a process that envisions growth and development and which enables members of a given community to optimise their potential for personal development. Transformation is therefore seen not as external intervention whereby things are "done to people" but rather as a process in which they are involved that generates growth and enablement.

When the concept of transformation is deeply examined, divergent views or concerns become clear. Questions about the role of politics, authority, power, knowledge and skills, resources, and so on arise. For example, does the privilege of transforming a particular community rest with an "agent" from outside that community or are opportunities facilitated so that people in that given community may transform themselves?

The process of transformation in education implies change with the intention to increase the scope of decision-making at the school site, and this has consequences for the work done by teachers (Jack 1996). Transformation and change go hand-in-hand in education; and ask for time, support, knowledge, skills, proper attitude, and the confidence to implement and manage all new initiatives and changes. Transformation also affects teachers' professional lives if teachers cannot sustain the conditions for managing the new trends or initiatives in education. Urbanski (1998) argues that the reason for ineffective teaching and learning is not the teachers. It is that majority of teachers work within outmoded, unprofessional systems that lack not only intrinsic

rewards but also most of the characteristics of a real profession.

Similarly, transforming education has little to do with transferring roles and teaching duties to teachers. It should involve the whole question of teacher autonomy and empowerment. Scholars such as Bayona (1995), Day (1995), and Carl (2002) argue that educational transformation in most rural African schools has, to a large extent, imposed upon teachers new curricula and greater administrative responsibilities but without proper training, facilities and freedom to make critical decisions.

The bottom line is that transformation and change cannot be realised in rural schools without a holistic approach to the role of teachers. The more teachers are to be given responsibility for curriculum decision-making the more important it becomes that they be given all possible support. This point is discussed in detail later in this paper.

## 2.2 TEACHERS AND CURRICULUM DECISION-MAKING

The role of the teacher in curriculum decision-making and development is contentious. A point of view, well represented in the literature, is that curriculum development requires knowledge and expertise beyond that which teachers have generally acquired; that in any case teachers simply do not have time and resources to develop curricula, and that their role is principally one of implementation (Sieber 1972, Eisner 1979, Tanner and Tanner 1980).

Alternative arguments reflect the notion that the role of the teacher is fundamental to curriculum processes at a number of levels and in different ways, and that curriculum development, educational transformation and change cannot exist without teacher involvement and development. It is further argued by adherents of this view, including the author of this paper, that this requires due recognition by the community of interest, and that training and organisational procedures should be evolved which both acknowledge and reflect the centrality of the teacher's role in curriculum development.

The platform adopted in this paper is that teachers form an integral part of curriculum decision-making processes per se irrespective of the context in which they practice, and, given the opportunity, the necessary resources, and training, teachers are capable of making independent and valid curriculum decisions and of participating effectively in transforming the school curriculum.

When views such as those presented above are related to specific cultural, political, and socio-economic contexts the true complexity of the debate emerges, as does its essentially normative nature. In the contemporary educational climate a discernible trend towards increasing teacher involvement in curriculum decision-making - concurrent with the devolution of power and authority to schools and their communities, in many parts of the world - is evident.

In most rural communities of African countries, however, the present role of teachers is one of a narrowly circumscribed curriculum implementation. That is, teachers are highly constrained by prescribed curricula content and they are not empowered to change or adjust it to meet local needs. Centrally determined curriculum packages and attendant implementation directives virtually bypass teachers in order to engage students in learning processes. Contributing factors to 'teacher-proofing' include the rigid 'top-down' systems of communication within hierarchical education systems, economic constraints, regional based cultural differences, and the efficacy of teacher training and levels of teacher competencies. These and other factors require serious attention by African Educational Authorities and Teacher Educators to minimise 'slippage' and increase fidelity in the design and implementation of curricula. The literature shows that there is a growing concern among African scholars and some politicians over the tension between expected roles of teachers in facilitating national development (transformation) through the curriculum, and the systems that have been established to effect the latter (Bayona 1995; Ejiogu 1980; Nyerere 1984; Carl 2001).

The late President Nyerere's address to the National Conference on Educational Policy and Implementation in Tanzania in 1984 also pointed to the need for Africa to change



from highly centralized to participatory decision-making approaches in education and curriculum development. He argued that it was impossible to educate millions of citizens from National Headquarters (the Capital) and challenged the conference, Ministry of Education Officials and Teacher Educators to consider a better alternative to current practice. His opinion was that the Ministry of Education headquarters should be responsible principally for the establishment of policy direction and guidelines, for providing up-to-date Teacher Education Institutions and ensuring an efficient advisory and follow-up system for educational programmes implemented throughout the country. Teacher Education Institutions, schools and teachers should, of necessity, be given enough freedom to educate students, drawing upon conditions, initiatives and resources available locally. In conclusion, Nyerere said:

*This means that responsibility for education and curriculum be shared. All our educational experts and administrators should not be located in Dar-es-Salaam. The headquarters only needs few people to carry out ministerial tasks. Others with high education qualifications and senior positions should be assigned to work in educational establishments in Regions, Districts and Schools. They should be able to effect decisions without having to check with Dar-es-Salaam all the time and for every detail. (Nyerere, 1984; p15).*

These views are also supported by several scholars. Collectively, they argue that, in order to achieve effective educational transformation through the curriculum, African governments and education systems should change from directive and authoritarian curriculum decision-making practices to more participatory approaches which incorporate teachers and communities of interest in local level in effective decision-making practices.

From the premise that higher participation rates by teachers are both desirable and legitimate this paper seeks to establish that, by virtue of their position and functions in

an education system, teachers inevitably have a crucial part to play in educational transformation, through curriculum decision-making and development. It is axiomatic that ultimately teachers mediate the curriculum to learners; a task which involves interpreting, modifying and adjusting new curricula changes and innovations and sometimes designing their own curricula content and materials to meet specific learners' needs. At least within these limits, it is contended that teachers clearly have a rightful claim to participate in curriculum decision-making and development (Print 2000; Bayona 1995; Brady 1999; Carl 2001).

### 2.3 TEACHER EDUCATION

'Teacher Education' refers to programmes in which prospective teachers receive training to become educators and facilitators in both the formal and informal education sectors. Programmes can take the form of preservice (Preset) or inservice (Inset). The aim of these programmes is to train teachers to educate and teach effectively in order to facilitate learning. Effective teaching requires clear understanding of the learning process and the acquisition of the following: sound knowledge, skills and values; the ability to design and interpret learning programmes; to be a leader, administrator and manager in the school and classroom; to practise and promote a critical attitude (having a committed and ethical attitude towards work and others); the ability to conduct research on teaching and learning; the ability to provide guidance and counselling to learners and fellow teachers; and the ability to integrate assessment in teaching.

Transformation has an effect on Teacher Education. Teachers and Teacher Education institutions are finding themselves adrift in a seemingly endless sea of school reform policies and literature. Moreover, the increasingly politicized public debates about educational issues (e.g basic skills versus problem-solving, outcomes-based education, infusion of gender in the curriculum, HIV-AIDS, etc.) contribute to the feelings of helplessness and frustration experienced by many classroom practitioners (Baker 1999). Teachers Educators as well as school teachers are automatically expected to include transformation perspectives (both global and national) as a component of education in

their courses.

It is also important to establish whether the rebirth of Africa would pose any new demands on teacher educators on the African continent. As the African Renaissance is taking place, so are several transformation and change decisions emerging; and these will obviously create new conditions for teacher education on the continent. It is necessary for Teacher Educators on the continent to start positioning themselves for these changes. Definitely teachers in the new Africa will be expected to perform certain (new) tasks in the context of the African Union as it evolves. We have to know in advance what these new tasks will entail in order to provide effective training to prospective teachers.

Like all other sectors of society in Africa, Teacher Education finds itself facing a future full of new changes and innovations; and the role of Teacher Education in Africa's transformation process cannot be easily ignored or replaced. Professional development of teachers certainly needs to undergo transformation in order for it not only to survive, but to positively thrive in relation to the new challenges facing education across the continent.

### **3. CHALLENGES FOR TRANSFORMING EDUCATION IN RURAL AFRICA**

#### **3.1 EDUCATION FOR ALL**

Africa is a vast continent, comprising 53 countries which vary in size, language, customs and socio-economic systems and conditions. The majority of citizens in these countries reside in rural areas, most of which are remote and poverty-stricken. In an address by the then Tanzania's Minister of Education to the ACO (African Curriculum Organisation) International Workshop, which strongly emphasized the commonality shared by ACO members, and the pressing need to find ways of involving African teachers in curriculum decision-making and development, the Minister stated:

*I am sure the situation in countries represented here is not different from that of Tanzania in that the population is over 90 per cent rural, thinly spread over vast areas of land. In many countries it is still common to find single family villages situated long distances apart ... yet it would be true to say that most rural people have never seen an "expert" in their lives, let alone specialists. To them an expert is no more than the school teacher. In their small world they are the experts who interpret national goals into local programmes of action.... Thus, there is a need to disseminate the skills of curriculum development not only to professional curriculum developers and evaluators but also to ordinary classroom teachers..... We have to remove the mystiques which surround the profession of curriculum development. Let us involve more people working in the field so that we can get an active consumer population which acts as a pointer to some of the short-comings in the curricula our experts produce at national level (Kuhanga, 1978,pp11-15).*

As such, African governments are faced with problems of general development and nation building, and have long recognized that a crucial element of this development process is the creation of human resources through education and training. The first challenge, therefore, is for African countries to provide education for all their people (Kala 1995). African governments have for decades, especially since the 1960s, attempted to achieve the goal of education for all - but in vain. This is because of the tragic and dire socio-economic situations in which most African countries found themselves. In recent times, according to Kala (1995), Africa has been plagued by natural disasters, drought, famine, wars, refugees, and almost total economic decline. This situation has been exacerbated by the stringent servicing of foreign debts which swallows almost half of most countries's national budgets.

According to estimates by UNESCO, there were more than 100 million children of school-going age in Sub-Saharan Africa alone in 2000. Approximately 50% of these children did not have access to any schooling at all. In addition to these, there were over 80 million adult illiterates, mostly women, by the turn of the century (Kala 1995). According to the World Bank the number of poor people in Africa will rise from just over 300 million out of a population of 659 million in 2000 to 345 million by 2015 (Owuor, 2002).

Despite this challenge and the grim picture painted above, the thirst and demand for education is still very much there across the continent. Governments, parents and communities continue to make huge sacrifices in a bid to secure some education for children and adults.

### 3.2 UNSUPPORTIVE EXTERNAL ENVIRONMENT

Unequal terms of trade with the developed world, and the throttling structural adjustment (economic) programmes as directed by the World Bank poses another challenge to Africa's transformation programmes in all sectors, including education. Obviously the refusal of the richer countries to import products from Africa and to provide aid to the continent severely undermines Africa's pace of transformation and growth.

### 3.3 UNSUPPORTIVE INTERNAL SOCIO-ECONOMIC ENVIRONMENT

Africa also faces challenges of high levels of unemployment, low savings, and high rates of diseases such as HIV/AIDS, malaria, cholera, and so on. Also, poor service delivery in critical areas such as water, medical care, and communication slows down the process of transformation, change and development.

### 3.4 KNOWLEDGE AND SKILLS BY TEACHERS

To become deeply involved in the process of transformation through the curriculum, teachers need not only teacher training qualifications in a specialist subject or area, but also knowledge, skills and experience in fields of curriculum development and research. Lack of effective involvement in educational transformation by most African teachers, due to their lack of training in these fields, has been identified as the fundamental difficulty. Traditionally, most teachers on the continent have not received formal training as curriculum decision-makers and developers (Skilbeck 1984, Bayona 1995).

To make it worse, there are still many teachers, especially at Primary Education level, who are not qualified or are underqualified for the subjects they teach. According to Onwu (1999) 80% of science teachers in the low performing schools are inadequately trained or qualified. Bayona (2004) observes that the majority of Foundation Phase teachers in the Limpopo Province are academically and professionally unqualified or underqualified. They lack supporting knowledge and skills base to engage critically in contemporary education issues.

### 3.5 FLEXIBILITY AND RELEVANCE

There is an abundance of evidence to prove that curriculum development and transformation processes in most African countries are over-centralized and rigid. Decisions and programmes developed in a 'top-down' manner (Marsh 1984, Bayona 1995) prevent teachers from innovating within their schools and communities. Consequently, national programmes are perhaps inappropriately applied across all contexts and circumstances - not withstanding geographical vastness, and the socio-economic diversity of the population.

### 3.6 COORDINATION

Teacher Education and Curriculum Development in most African countries suffer a lack of coordination. Emphasis has always been on piecemeal curriculum renewal, and it would seem that institutions conceptualise curriculum development and teacher education

solely in the context of syllabus and text-books. Other significant processes such as situational analysis, curriculum trials, dissemination, research and so on are not accorded due priority (Bayona 1995; Taylor 1999; Carl 2002).

### 3.7 INFRASTRUCTURE AND RESOURCES

Most rural schools are under-resourced and operating in very poor and unpleasant conditions - shortage of water, electricity, classrooms, play grounds, laboratories, libraries, etc. (Bayona and Sadiki 1999). The classrooms in some schools are a danger to the lives of learners and educators, and are not conducive to effective teaching and learning. In most rural schools teachers cannot apply a variety of learner-centred methods because the infrastructure is traditionally rigid and not easy to manoeuvre.

## 4. CONCLUSION

The picture painted above of Africa and conditions on the continent reveals that in the context of transformation, the role of teachers and teacher education should be viewed differently. The challenge in the rebirth of Africa is that there should be a change from looking at teachers and teacher educators as implementors of what other people have decided and designed, but look at them as empowered people who are able to do things as and when the situation requires. The following recommendations or possibilities are presented here for consideration by African countries, especially for transforming education in rural Africa:

4.1 The present pre-service teacher education system must change. This system is based on the thinking that a teacher is in the lower ranks of the education system, whose work is to implement policies and curricula drawn by some people somewhere. That is why most programmes in teacher education, hardly empower student-teachers to be able to draw a curriculum, design a programme or develop learning materials.

- 4.2 Inservice teacher education should also change its focus. Most Inset programmes are designed to train teachers to carry out pre-defined specifications instead of educating teachers to respond creatively and with judgement to situations and ways that are unpredictable. The tendency now is "go for Inset so that you may come back and teach maths as taught in the Inset". This is a conservative proposition which may not survive in the new Africa and new millennium, because postmodern society is "a dynamically complex and nonlinear one in which change is ubiquitous and relentless" (Guskey 1995). The key concepts for effective INSET should include life-long learning, stakeholder collaboration, interaction, discovery, negotiation, innovation, and professional development.
- 4.3 Teacher Education programmes should enable prospective teachers to understand Africa - its conditions, history and values. Student teachers must realise that they may work in more developed and affluent societies, but also in less urbanised and even remote rural, poverty stricken communities (Mayer 1990).
- 4.4 Teacher Education programmes must enable teachers to work in the most adverse conditions and in the most isolated communities. They have to learn to make do with small incomes, small education budgets and totally inadequate infrastructure.
- 4.5 Teacher Education should help teachers to be able to devise and improve programmes.
- 4.6 Teachers should be trained to utilise the latest technology; to communicate by means of radio and television as well as distance education documentation. They also have to be trained to improvise if such technology is not available.



- 4.7 Teacher Education should enable teachers to conduct their own research - starting from their classrooms to other levels of the education system.
- 4.8 Teacher Education in the new Africa should also reflect insight into the fact that Africans of the 21st century will remain an inextricable part of the global community. Africa's Western heritage cannot be summarily scrapped or written off. For this reason, an original synthesis of both the indigenous and the Western systems should be elaborated (Hountondji 2002).
- 4.9 African Curriculum Development should consider seriously establishing 'Participatory Curriculum Decision-making and Development Models (PCDM)' The PCDM (Bayona 1989, 1995) seeks to reconcile the national education policies in fostering the achievement of national goals and identity whilst recognising cultural (local) diversity. The objective of this model is to achieve comprehensive and effective teacher participation in curriculum decision-making. This is in order to meet national development targets through educational policies and the curriculum with respect to local and national needs and increased student retention rates. It is anticipated that adoption of this model will lead to increased levels of implementation of national curricula, modified to suit local contexts, whilst concurrently maintaining the integrity of national goals and aspirations.

Five levels of curriculum decision-making and development and their roles are identified within the structure of the PCDM model : Classroom level, departmental level, school level, regional (provincial) level and national level. Therefore, the model's capacity for introducing curriculum decision-making and development at levels other than the centre is a major reorientation to extant decision-making structures and procedures. The model promotes six principles of curriculum development, in favour of active teacher participation:

- a) Democratic ownership and control of the school curriculum

- b) Sharing of curriculum responsibilities
- c) Allowance for flexibility in curriculum decision-making and development
- d) Professional growth of teachers in Curriculum Development
- e) Building the necessary resource support base
- f) Curriculum continuity and coordination.

The model also promotes a chain of teacher representation which starts at classroom level and ends at national level.

At every level, the model introduces a "Curriculum Facilitating Team" and qualified curriculum experts as "Curriculum Facilitators at School level, Regional level and National level.

The model is not designed primarily to decentralize the education system. Rather, the model is designed to achieve a balance between national and local involvement in curriculum processes. It seeks, therefore, to introduce changes that will gradually enhance effective participatory curriculum development without destabilising the present education systems.

- 4.10 Within the context of the above model, there should be an intensified and sustainable staff development programme which is mostly school-based or field-based. Deliberate programmes to up-grade and re-skill teachers should be a permanent feature at school level. Curriculum facilitators and lead teachers at school level should work with teachers, regional and national facilitators and teacher education institutions to identify training needs and develop relevant programmes for such needs. Programmes such as the Kgatelopele District Improvement Projects (KDIP) and the National Professional Development Diploma (NPDE) in the Republic of South Africa are a step in the right direction towards promoting "Participatory Curriculum-decision-making and Development".

Let it be emphasized that transforming education in rural Africa faces tremendous

challenges - several of which relate to Curriculum Development and Teacher Education. Teachers in schools, as well as Teacher Educators play a key role in ensuring successful, relevant and dynamic implementation of educational reforms and innovations through the curriculum and teaching. The aim of this paper was to highlight the importance of rethinking the role of teachers and teacher educators in order to establish appropriate structures and programmes that should eventually empower rural teachers to become agents of curriculum change, which in turn will enable them to make a positive contribution towards the development and transformation of education in Africa.

## REFERENCES

1. Bayona, E.L.M (1989). Administrative Arrangements for Teacher Participation in Curriculum Decision-making and Development; University of Western Australia, Perth.
2. Bayona, E.L.M (1995). Curriculum Design and Development : The Role of Teachers, Print Consult, Gaborone, Botswana.
3. Bayona, E.L.M and Sadiki, B. (1999). An Investigation in to appropriate ways of implementing institutional development (Whole School Development), in Taylor, N. and Vinjevd, P. (Eds.), Getting Learning Right : Report of the President's Education Initiative Research Project; JET, Republic of South Africa.
4. Bayona, E.L.M (2004), Kgatelopele District Improvement Project (OBE): Technical Support, Monitoring and Evaluation Report; Open Society Foundation, Cape Town, RSA.
5. Baker, F.J (1999). Multicultural versus Global Education : Why not two sides of the same coin? Journal of Teacher Education, 8(9) 2003.
6. Brady, L. (1999). Curriculum Development in Australia, Sydney, Prentice Hall, Australia.
7. Carl, A.E(2002). Teacher Empowerment Through Curriculum Development : Theory into Practice; Juta and Co. Ltd : Lansdowne, RSA.
8. Cull, P. (2003). Use Latest Technology, urges minister, The Herald (Eastern Cape), 24 October : p4.
9. Day, C. (1995). Managing Teachers as Professionals in Schools; in Busher and Sarah R. (Eds.), London, Kogan Page.
10. Eisner, E.W (1979). The Educational Imagination : On the Design and Evaluation of School Programmes. New York, Macmillan Publishing Co., Inc.
11. Ejiogu, A:M (1980). When Innovations are External to Realities and Need of an Organisation : Problems of Educational Innovations in Developing Countries. Journal of Curriculum Studies, Vol. 12, No. 2, 1980 pp 161-166.
12. Guskey, T.R (1995). Professional Development in Education. New York :

Teachers College Press.

13. Hountondji, P.J (2002). Knowledge appropriation in a post-colonial context : In Hoppers CAO (ed.), *Indigenous Knowledge and the integration of knowledge systems*. Claremont, New Africa Books.
14. Jack, M. (1996). Rationale, problems and pitfalls of foundation course design. *Academic Development*, 3(1) : 63-76.
15. Kala, N. (1995). Distance Education in Africa. *European Journal of Engineering Education*.
16. Kuhanga, N.A (1978). *Techniques in Curriculum Development*. Dar-es.Salaam, Institute of Education, pp11-15.
17. Marsh, C.T (1984). Disseminating Curricula : A look from the Top Down. *Journal of Curriculum Studies*, Vol. 16, No. 1, 1984; pp53-66.
18. Mayer, V.J (2000). Teaching from a Global Point of View. *The Science Teacher*, 67.
19. Nyerere, J.K (1984). Address by the President of the United Republic of Tanzania to the National Conference on Education, October 22, 1984. Arusha, Ministry of Education : Dar-es-Salaam, Tanzania.
20. Onwu, G.O.M (1999). An Investigation of the availability and use of learning materials in Grade 12 Science classes in some selected school in the Northern Province. *JET*, Republic of South Africa.
21. Owuor, H. (2002). Building on the European model : Challenges for the African Union. *The Nation*, 24 July :7.
22. Print, M. (2000). *Curriculum Development and Design*. Sydney, Allen and Unwin Australia Pty.
23. Scieber, S.D (1972). Images of the Practitioner and Strategies of Educational Change. *Sociology of Education*. Vol. 45, 1972, pp 362 - 385.
24. Skilbeck, M. (1984). *School-Based Curriculum Development*. London : Harper and Row Ltd, England.
25. Tanner, D. and Tanner, L.N (1980). *Curriculum Development : Theory into Practice*. New York : Macmillan Publishing Co. Inc. USA.
26. Taylor, P.H (1999). *Basic Principles of Curriculum and Instruction*. Chicago,

University of Chicago Press : USA.

27. Urbanski, A (1998). Teacher Professionalism and Teacher Accountability : Towards a more genuine teaching profession. *Journal of Educational Policy*, 12(4) : 449-457.