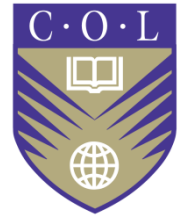


# *ODL and ICTs for Teacher Development in Sub-Saharan Africa: the Experience of the Commonwealth of Learning*

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*BOCODOL WORKSHOP, Gaborone, Botswana, 1 September, 2005, ODL and ICTs for Teacher Development in Sub-Saharan Africa: the Experience of the Commonwealth of Learning*

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## **Introduction**

It is a pleasure to be invited to speak to you at this BOCODOL [Botswana College of Distance and Open Learning] Workshop on the final day of a three-week trip that will have taken me around the world from Vancouver to Vancouver through eight countries of southern Africa. Southern Africa is the most distant part of the Commonwealth from Vancouver, so once I was here it made sense to visit all the Commonwealth countries of the region. It is good to end here in Botswana at BOCODOL, because throughout my trip I have found great interest in the development of SARDEC [the Southern African Regional Distance Education Centre].

My instructions for my remarks today were to present a paper on any aspect of ODL that I feel will benefit the region. This is in the context of strengthening the capacity-building programme being undertaken by SARDEC with COL's support. This morning, at the WITFOR [World Information Technology Forum] conference, I talked about eLearning and the huge potential importance to Africa of the combination of increasing connectivity and open educational resources, the re-usable learning objects that we can now create in electronic form.

You obviously don't want to hear the same speech, so this afternoon I am going to talk about teacher education. My title is: ODL and ICTs for teacher development in Sub-Saharan Africa: the experience of the Commonwealth of Learning and I have prepared this paper with the help of my distinguished colleague Professor Mohan Menon, who is in charge of the area of teacher education and school development at COL.

The essence of COL's work is the application of technology to learning for purposes of development. You are all familiar with the Millennium Development Goals, the MDGs. Achieving these goals will be challenging for many African countries, because their attainment requires many different types of intervention. However, a common requirement for progress to all the eight goals is a massive increase in learning. COL is increasingly using the framework of the MDGs to define its work, which is leading us to try to contribute to the fight against poverty and hunger through lifelong learning for farmers and to the struggle against disease by helping the masses to learn how to live healthy lives.

But the MDG that stands out, because it provides the foundation for progress to all the others, is the goal of basic education for all. It is in this context that COL is engaged in helping countries to train and develop their teachers. However good we are at using technology to support schooling, children need teachers. They are fundamental to school development, which is why we call Professor Menon's area 'Teacher Education and School Development'. You are all well aware of the challenge.

## **The Challenge of Teacher Training in Africa**

There is a severe shortage of teachers at all levels of the education system. UNESCO's Education Sector plan for 2005-07 predicts that in Sub Saharan Africa (SSA), at a conservative estimate, 4 million additional teachers will be needed by 2015 to meet the Universal Primary Education goal alone. This is in addition to the needs of literacy and health education in the non-formal systems. In some SSA countries, the majority of primary education teachers have only a lower secondary qualification, often without any professional training. These personnel enter the profession reluctantly, and leave quickly, and they include large numbers of so-called parateachers.

This tells us that Africa faces a massive need to train teachers both before service and during their service. The pre-service and in-service training of teachers is the key to increasing access to schooling and to improving the outputs of schooling. It is now clear that conventional methods of teacher education can neither scale up to meet the numerical challenge nor supply the consistency of training necessary to ensure quality.

## **The Advantages of Open and Distance Learning**

Delegates to this BOCODOL workshop are likely to be broadly convinced of the potential of open and distance learning and appropriate information and communication technologies to provide some of the answers to this challenge. However, it is worth listing six of them.

First, ODL provided opportunities for learning that are flexible and relatively free of constraints on the time and place of study.

Second, ODL can be carried out at scale with consistent quality, which makes for more cost-effective systems.

Third, ODL is a more learner-centred approach with options for greater interaction between learners and resource materials, tutors and lecturers or teachers.

Fourth there are many examples ODL's capacity to deliver both quality learning resources and operate effective systems of student support.

Fifth, ODL can provide opportunities for professional development and upgrading without taking the teacher away from the workplace.

Sixth, ODL materials can be customised to local needs and priorities, combining the benefits of scale with the attraction of cultural relevance.

I should perhaps add a seventh advantage of ODL for teacher education in Africa, namely that there is now a deep pool of experience in Africa on the use of ODL for teacher development.

## **COL and Teacher Education in the 1990s**

For these reasons COL has been helping countries use ODL in teacher education since its creation. Its first major activity was a Round Table on Teacher Education organised in Vancouver in 1992. An expert group of twenty-two experienced teacher educators from thirteen Commonwealth countries discussed critical aspects of teacher training for science, mathematics and technical/vocational subjects. Their debates ranged over the related issues of materials, methods, media, quality, regional trends and international co-operation.

The papers presented at the Round Table became a publication whose recommendations gave direction to COL's work in teacher education for the rest of the decade. That work included advocacy and consultative meetings, training workshops and training material development. Training material development was a particular priority that inspired two major projects in the late nineties: the STAMP 2000+ Materials and Training Materials for Women Education Managers.

More generally, the period 1990-95 saw fifteen regional workshops and over twenty-five national workshops aimed at improving and expanding the professionalism of distance education. These were organized with the help of local institutions and involved several hundred participants from thirty-five Commonwealth countries. In addition, many people benefited from training attachments to institutions in other Commonwealth countries.

This training covered a wide range of topics such as course writing and editing, radio and video script writing and production, instructional design and course development, tutor orientation training, the management of student support services, course design for audio-teleconferencing, desk-top publishing and the use of the computer as a management tool in distance education. Whilst the main focus of this work was capacity building in ODL and communication technology generally, some of the workshops focused specifically on the application of ODL to teacher training.

Recent initiatives for teacher development in Sub-Saharan Africa

COL has maintained the momentum of its work on teacher development into this new century. Its present three-year plan, covering the period 2003-06 identifies three programme areas, or types of output.

First, there is a focus on Policy. The aim is to facilitate the adoption and implementation of open and distance learning within the broader educational and human resource development strategies and policies of member nations.

Second, through its focus on Systems Development, COL assists in the development of open and distance learning systems that either build on existing capacity or create new capacity.

The third output is Applications. These show how open and distance learning can benefit individual learners, institutions and countries by accelerating human resource development.

Finally, Knowledge Management is the fourth area of COL's work and supports all three programme areas in a cross-cutting manner.

In this three year period COL activities in teacher development appear in all three programme areas and cover six areas of work.

## **Advocacy and Policy**

Firstly, and very importantly, COL advocates and facilitates policy formulation through dialogues, consultations and meetings - both formal and informal - with policy makers and senior administrators in governments and institutions. The aim is always to familiarise these decision makers with ODL and ICT. In recent years COL organised the following gatherings with a specific focus on the use of ODL/ICT for teacher development.

In July 2001 COL held an African Policy Dialogue in Teacher Education in Namibia. 234 participants representing Ministries of Education, teacher education institutions and other organisations from across Africa took part. Major recommendations from this dialogue were that African Governments should:

show stronger political will and commitment to ODL initiatives in their respective countries, through appropriate and adequate resource mobilization and allocation;

integrate ODL with their wider education delivery systems;

foster cooperation among African countries, using sub-regional institutions where available, in order to share expertise and optimise resource deployment for ODL;

take advantage of the immense potential of appropriate information and communications technologies to advance ODL;

enhance the motivation and professional development of teachers with policies for career development and professional growth;

establish accreditation frameworks and standards for all levels and modes of education, including ODL, so as to guarantee quality, comparability and relevance;

develop appropriate infrastructure and management systems for ODL;

formulate policies to arrest the spread of HIV/AIDS and other epidemics on the continent and so reduce their impact on teacher availability; and

create an enabling environment for an ODL knowledge and skills bank, through research and development in African countries.

Those recommendations sound very good but that was four years ago. Have we made progress? In January of this year I visited the Commonwealth countries of West Africa and I complete here today a three week tour of eight Commonwealth countries of Southern Africa. I have met several heads of government and nearly all the Ministers. My conclusion is that we are making good progress. In Nigeria and Ghana Presidents Obasanjo and Kufuor are themselves taking a direct hand in promoting the development of ODL. Everywhere I have been in Southern Africa I find Ministers convinced that greater use of ODL at all levels, and especially for teacher training, is the only way to achieve the objectives of Education for All.

Another important meeting that COL convened was concerned directly with EFA. This Education for All consultative meeting was organised in Abuja in 2003 in collaboration with apex organisations under the Ministry of Education, Nigeria. Ministry officials, teacher educators, education administrators and non-governmental agencies from West Africa participated. The main focus areas related to teacher training in the context of the EFA agenda for Africa that emerged in the meeting were:

Providing initial training for untrained teachers and upgrading of under-qualified teachers leading to certificates/diplomas/degrees;

Recurrent training and regular teacher support using ODL and ICT to assure school quality;

Capacity building of head teachers and educational administrators with a focus on maintaining school quality;

Professional development of policy makers, teacher educators and top educational administrators on innovative management and use of alternative modes for training of teachers.

In addition to these area specific meetings and forums, COL supports the organisation of regional and national forums for advocacy of ODL and ICT for human resource development in all sectors of development. Three such forums were organised in the last two years in Kenya, Cameroon, Sierra Leone and The Gambia. Using ODL/ICT for teacher development has been one of the major areas of focus in these forums.

## **Training materials development**

COL's second area of work in teacher training is the development of teacher training materials in cooperation with institutions. Apart from the materials themselves, this work increases capacity for materials development and creates networks of institutions. Here are some examples in Sub-Saharan Africa.

STAMP 2000+ - a joint initiative: Following the call for large numbers of better trained teachers at the 1997 Conference of Commonwealth Education Ministers held here in Gaborone, COL responded by bringing together eight southern African countries - Botswana, Malawi, Mozambique Namibia, South Africa, Tanzania, Zambia and Zimbabwe - to collaborate on a five-year distance education project to train upper primary and junior secondary teachers and administrators.

Under the name STAMP 2000+, this Science, Technology And Mathematics Programme was designed to facilitate in-service training and upgrading for teachers in participating countries. Forty six modules are now available in four subject areas - Science (8), Technology (9), Mathematics (11) and General Education (18). The modules were designed to be sufficiently generic to adapt to the specific needs of existing in-country teacher training programmes.

Close to 300 education professionals, including administrative and technical staff, have received hands-on training related to instructional design, course writing and management. The fact that this initiative ran to schedule is a testament to the programme's success as a collaborative effort. This was achieved through a series of training and course development workshops. Workshops were held to design a core regional curriculum compatible with SADC educational practice and to streamline the adaptation of STAMP 2000+ modules while keeping open the longer-term possibility of the programme's implementation in other SADC countries. Ghana has adopted some of the modules of the package in its courses for primary school teachers.

COL has made the 46 modules available on a single CD and the entire package has been uploaded to the World Space Satellite to allow distribution of the modules all over Africa. STAMP2000+ CDs are freely available for all Commonwealth countries. We encourage countries to adopt the STAMP 2000+ modules and use them for in-service teacher training. Each country can design its own delivery and learner support system. COL will be happy to work with Ministries or institutions to facilitate this process.

The next step is to convert relevant modules into an interactive format suitable for use for on-line or CD-based learning.

The development of training material for women education managers in South Africa is another COL project, carried out in Kwazulu Natal province of South Africa in 2000-2001. The programme contained 10 modules of self-learning print materials. As a follow-up, a meeting was organised in August 2002 to review the possibility of developing materials for other media to support the print materials. The material is available for use in South Africa and other countries.

## **Capacity building in ODL/ICT for teacher development**

COL's third major concern is to strengthen the capacity of teacher training institutions in ODL and ICT. Instead of one-off training workshops in various aspects of ODL, COL prefers to have long term associations with institutions or countries in order to have greater impact. Here are some African examples.

COL started working with Nigeria's National Teachers' Institute (NTI) in 2002 to assist internal and external capacity building. Internal interventions reviewed and strengthened the capacity of personnel and systems within the Institute. External intervention forged links between NTI and agencies and institutions within Nigeria and abroad.

Thanks to the internal work NTI now has adequate capacity for developing effective self-learning print material, for producing course-based video programmes and for using of radio broadcasts. In the external work COL familiarised some 60 heads of teacher education colleges with the use of ODL and ICT for teacher training. This has given them a better appreciation of NTI and its crucial role in teacher training.

Phase II of COL-NTI collaboration has begun with a review of the learner support system. Following this NTI has identified further areas for COL cooperation in the next 2-3 years. They include development of a handbook for training tutors, a workshop for training trainers, the design of monitoring and evaluation and a quality assurance mechanism.

With support from the World Bank COL also helped to build capacity in the Lesotho College of Education. Phase I of the Distance Teacher Education Programme trained the academics of the Lesotho College of Education in instructional design and self-instructional materials development. It included developing 18 modules of course material for year 1 of the programme, designing the learner support system and defining the administrative arrangements. About 30 faculty members of LCE had received training by March 2002.

## **Networking and consortium building**

COL's fourth area of activity is networking and building consortia.

Since early 2002 COL has worked with the various organisations managing and implementing primary teacher development in Nigeria. These include the National Commission for Colleges of Education (NCCE), National Teachers' Institute (NTI), National Open University of Nigeria (NOUN), Universal

Basic Education Programme (UBE), Colleges of Teacher Education (CTEs) and the National Commission for Nomadic Education (NCNE).

The idea is that each of these organisations has an important role to play in the application of ODL and ICTs to teacher development. This was a shift in mind-set from the earlier assumption that ODL implementation would rely only on specialised ODL institutions. The hope is that such a network can underpin a cost-effective and sustainable programme of teacher development using ODL. Each organisation has its place in the network consistent with its own mandate but all contribute positively to the overall quality and efficiency of the ODL system.

In a second example, COL along with UNESCO's Regional Office for Education in Africa, BREDA, helped create a Teacher Education Consortium in West Africa. Ministers of education from Cameroon, The Gambia, Ghana, Nigeria and Sierra Leone signed an agreement in November 2002 to adopt and use ODL materials and systems for in-service-teacher training in their countries. There followed a workshop in February 2003 in which participants from their teacher education colleges met in Kaduna, Nigeria and reviewed the STAMP 2000+ teacher training materials.

They selected modules from STAMP 2000+ for their use and then continued to interact, to share materials and services and to organise joint workshops and training programmes with COL. Thus a training workshop on learner support for teacher training was organised in Winneba, Ghana in July 2004 and another on Instructional Design in Kaduna in May 2005. COL is now attempting to create such a consortium in East Africa.

Since I am at BOCODOL, which is the home of SARDEC, the Southern African Regional Distance Education Centre I should note particularly the sister institution in Nigeria serving West Africa. RETRIDAL, The Regional Training and Research Institute for Open and Distance Learning has been created in the National Open University of Nigeria (NOUN) with COL support and is now identifying and strengthening expertise in ODL and ICT in the region. I hope that RETRIDAL will help SARDEC in its development.

## **Quality Assurance in Teacher Education**

Area five of COL's work is the vital area of quality assurance. COL has been working with accrediting agencies and teacher education institutions in Africa and South Asia to facilitate quality assurance in teacher education. The institutions are working on a package of quality indicators which is available for testing in selected Commonwealth countries in Sub-Saharan Africa and south Asia this year. It will then be offered for use Commonwealth wide.

In related work, COL has brought together accrediting agencies and teacher education providers using different modes to discuss issues of quality and its enhancement in teacher development. A Roundtable



on Quality issues in the use of ICT for teacher development was organised by COL and the National Commission for Colleges of Education (NCCE), Nigeria in April 2005.

## **Facilitating e-learning for teacher training**

Area number six is the use of eLearning in teacher training. In 2004 SchoolNet Africa (SNA) commissioned a study of eLearning in partnership with COL, the International Institute for Communication and Development and the Open Society Initiative of Southern Africa. It is the most extensive examination yet conducted of teacher training using ICTs in African countries for both pre-service and in-service. The findings flag significant challenges in integrating ICTs into teacher training. These include: the variety of levels at which ICT capabilities can be taught and the difficulty of making large-scale and effective strategic interventions; the lack of a comprehensive pan-African framework to inspire the development of local technological models and local teacher training content for building teachers' ICT capabilities; the lack of coherent government policies for developing teachers' ICT capabilities; the low priority accorded to funding ICT education and the under resourcing of institutions; a shortage of locally developed, contextually relevant course content for both teachers and learners; a reluctance to invest in equipping teachers with the necessary skills to integrate ICTs when schools do not have the computer laboratories where they can put their skills into practice with learners.

## **Professional Development of Teacher Educators/Administrators**

COL's final area of interest is the professional development of the leaders, managers and administrators of teacher education. The task is to develop management capacity and inculcate a better understanding of the potential of ODL and ICT in teacher training among institutional heads and administrators from sub-Saharan Africa.

Four presentations of a workshop jointly organised by COL and Ministry of Foreign Affairs of Singapore have been held from 2001 to 2004. Seventy-five (75) teacher education administrators from Africa participated. The fifth in the series will be in November this year. We are also evaluating the activity to decide whether to continue it and, if so, what changes to make.

The Indian National Council for Educational Research and Training proposed organising similar workshops, which COL held with NCERT in 2003 and 2004. Twenty-three (23) heads of teacher education institutions from Africa participated in these two 10-day workshops, which were designed to help heads of Teacher Training Colleges address the challenges of training teachers for achieving Education For All. Indian delegates also took part, allowing the sharing of ideas between these two regions.

## **Conclusion**

It is time for me to conclude. I assure you that teacher development using ODL and ICT will continue to be a priority to COL in the next three year plan that starts in July 2006. Capacity building, quality assurance and consortium and network building will be important themes. Most this COL activity will

happen in the eighteen countries of Sub-Saharan Africa with a special focus on the poorer countries and those losing large numbers of teachers for various reasons. COL will work closely with UNESCO's programmes in the region and will be involve in major regional projects such TESSA. However, this focus on the region will also include fostering South-South cooperation, especially through links with South Asia.

It is in the context of work like this that COL welcomes the establishment of SARDEC here at BOCODOL and commits to supporting its activities, both in teacher education and in other applications of ODL.