DRAFT

THE GLOBAL TEACHER CRISIS – MEETING THE CHALLENGE THROUGH NEW TECHNOLOGIES AND NEW MODES OF TEACHING AND LEARNING

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I would like to begin with some pictures. Bilkisu is a teacher near Kaduna in northern Nigeria. She typifies 'par excellence' the benefits of open learning. After her ninth child was born, she decided to become a teacher, working unqualified whilst obtaining her National Certificate of Education through distance study at the National Teachers Institute.

But Bilkisu has few resources. Apart from the world around her she has one, her blackboard. Ninety children are on the roll of her class. They have no books, no writing materials, no desks (although they do have a uniform and they do have eyes that exude motivation).

There is nothing atypical about Bilkisu. Across Sub-Saharan Africa most teachers have a pretty tough time. Although most people sense this is true, it never ceases to amaze me how little is generally known about teachers. The Millennium Development Goals make no mention of teachers. Only in the last few years with the publication of the 2005 UNESCO monitoring report on quality (UNESCO, 2005), the report of the Commission for Africa (2005) and UNESCO's Teacher Training in Sub-Saharan Africa (TTISA) project gaining momentum has the policy community begun to pay attention. Let me quote from each in turn.

> 'Achieving UPE alone calls for more and better trained teachers. Countries that have achieved high learning standards have invested heavily in the teaching profession. But in many countries teachers' salaries relative to those of other professions have declined over the last two decades and are often too low to provide a reasonable standard of living. Training models for teachers should be reconsidered in many countries to strengthen the school-based pre- and in-service training rather than rely on lengthy traditional, institutional pre-service training.'
>
> (p. 5)
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> 'the push to achieve EFA will certainly never succeed without substantial investment in teacher recruitment, training, retention and professional development.'
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> (p. 4)
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> 'It is only now that people are starting to listen to those who saw the shortage of qualified teachers as a major impediment to national development and that national and international authorities are beginning to realize that the achievement of the Millennium Development Goals and the Education for All objectives depends on the training of professionals capable of the long-term effort to promote education effectively, in particular through the training of teachers and managerial staff in the education system.'
> (p. 3)

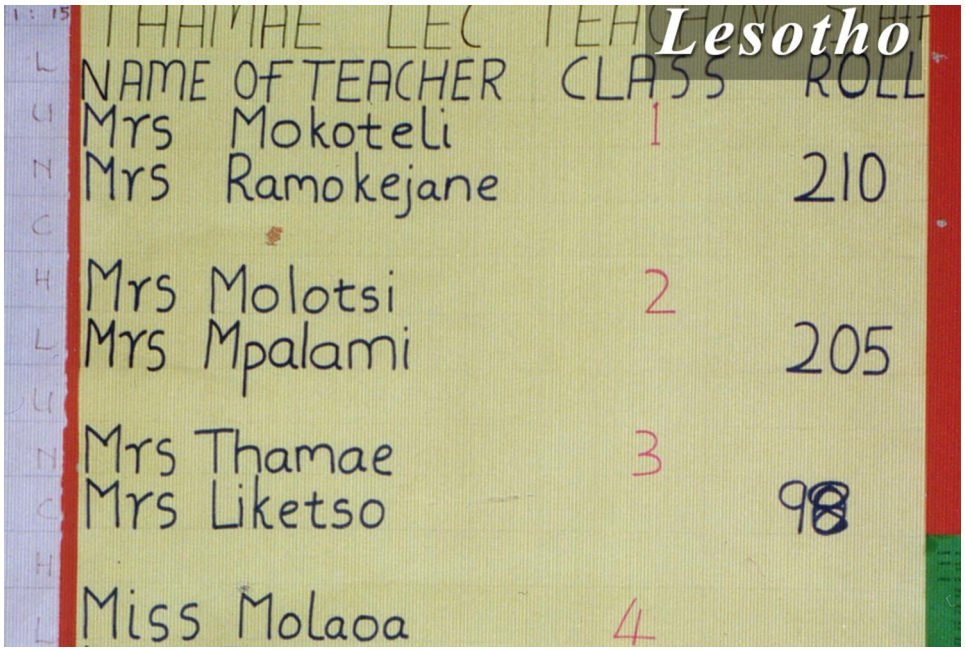
It's not as though these issues had not been put on the international agenda. I began my school teaching career in 1966 and I happily taught for over twenty years oblivious to the fact that UNESCO had published an eloquent paper of recommendations on the status of teachers in that same year. It was a far reaching document which, all credit to its authors, has stood the test of time magnificently.

And we know that improving the quality of teaching improves educational achievement and impacts on a range of economic variables (Lee and Barre, 2001; Lopez-Acevebo, 2004). This is particularly true when we raise the level of girls' education (ICRU, 2005; Hill and King, 1995).

I was particularly struck by a paper I read recently that attributed a large proportion of the rescue of the Chilean economy in the 1990s to the investment in teachers. Teachers specifically, not education in general (Foxley, 2004).

The attention to teachers is, I believe, urgent. In a paper that will shortly be published by the UK UNESCO committee (Moon and O'Malley, forthcoming) I argued with my co-author that teaching was in crisis in many parts of the world, a crisis of supply, retention and, the focus of my presentation, education and training.

First, the facts. Let me use a factual picture. I took this photograph in a primary school staff office on the outskirts of Maseru, capital of Lesotho.



The first two grades show the impact of abolishing fees. Enrolment doubled. But EFA meant a class of 210, all in one room for grade 1, and the same in grade 2 again in one room.

Whilst the roll had doubled, the number of teachers and classrooms remained the same. When I sit in seminars about teacher education in London or Washington, here in Cambridge, and I hear the rhetoric around promoting active learning, the need for a new pedagogy, I often think back to that hugely overcrowded class in Lesotho and the task that Mrs. Mokoteli had (on the day of my visit her colleague was on sick leave).

But let me summarise the crisis, looking particularly at Africa:

- in Sub-Saharan Africa we need 4 million more teachers to achieve EFA and make some small dent in class sizes (globally the figure is 14-22.5 million, Global Campaign for Education, 2006);

- across the region half of all primary teachers are unqualified, in some countries that runs to three-quarters (Commission for Africa Report, 2005);

- salaries and status in many countries is in freefall (Colclough et al., 2003) exacerbated, many suggest, by the macro-economic policies of organisations like the IMF (Action Aid, 2007);

- many teachers, particularly in rural communities teach without paper, books or resources;
- qualification upgrading programme, where they exist, usually provide a passport out of primary teaching;
- professional development opportunities are rare, commonly non-existent;
- HIV/Aids is impacting massively on the teaching population. In Zambia more teachers are dying annually than are leaving the teacher training system (McGreal, 2005). A recent South African report (Education in Labour Relations Council, 2005) was given the media headline 'A teacher dies every 2 hours'. And HIV/Aids are affecting teachers in other ways. In some parts of the region teachers have classes where a significant proportion of the pupils are orphans;

finally, and there are other issues,

- teachers are both the victims, and unfortunately the perpetrators, of corruption. In Kenya a recent report by Transparency International (2006) showed the Teacher Service Commission to be the third most corrupt public body in the country.

There is, therefore, a fair degree of gloom. Read, for example, the report of the Nelson Mandela Foundation (2005) on rural education to gain further insight into the challenge.

But that report, 'Emerging Voices', also has some cause for optimism. The report identified that where teachers could be explicitly shown to have good qualifications and training and where teachers, despite the challenges, displayed motivation, so local confidence grew.

For me, therefore, one of the key components of a resolution to the crisis must be high quality education and training, and here the mission of this conference does, I believe, have particular importance.

The context I have described for me leads to a number of important assertions.

First the 'bricks and mortar' institutions created to meet the needs of teacher education in the 20th century cannot hope to meet the needs of the 21st.

Second, it follows that most teacher education and training will happen in schools, be school based.

Third, if that school-based education and training is to impact on achievement then it needs to be practically focussed on improving the day to day work of teachers rather than mimic the slow pace campus curriculum of, say, a 4-year Bed.

Fourth, that just as the crisis for teachers becomes acute, we have the glimmer, perhaps more, of hope offered by new technologies and new forms of communication.

The technological revolution evolving across the world, perhaps most evident in Africa, has the potential to significantly transform professional learning and we need an urgency around policy makers to grasp these opportunities.

The signs of this are already there. The cyber mules in Venezuela are one example, taking laptops and projectors to remote rural mountain schools.

The Digital Education Enhancement (DEEP) project (http://www.open.ac.uk/deep/) led by my colleague Professor Jenny Leach, who sadly died last month, has for more than five years been working with teachers to improve the teaching of literacy, numeracy and science through use of mobile communication technologies. And motor bikes rather than mules provide the driving force (Leach, J. 2005).

And now we have the Teacher Education in Sub-Saharan Africa (TESSA) programme (see http://www.tessaprogramme.org/) that has an ambitious multi-million dollar programme, led initially by the Open University (UK) to provide, in text and online formats, high quality, multi-lingual, practically-focussed resources, versioned to local contexts, across all the key areas of the primary curriculum, expanding we hope shortly to cover secondary mathematics and science teaching.

TESSA, partly funded by the Alan and Nesta Ferguson Charitable Trust and the William and Flora Hewlett Foundation is pioneering the use of Open Education Resources (OERs), but in a particular form that in:

- the TESSA web portal is highly audience focussed, on the needs of teachers
- most of the resources have been originated for the portal rather than drawn from other sources.

Open and Distance learning providers have a challenge and mission to support the work of teachers and other professional groups. Everything I am saying about teachers could be said about doctors, nurses, welfare workers and agricultural advisors.

And in fulfilling this mission I think we have to raise our game about the standards and structures that define our programme.

I want to suggest seven ways in which the provision of programmes could be significantly enhanced.

- **First, our teaching of teachers is frankly often mind blowingly boring:** we need to inject some creativity, zest and imagination into curriculum development. Open learning now has, or will shortly have, the capability to embrace all aspects of media – we must jump at the chance'. New media, and new application of old media have so much potential to enliven the too often dreary study texts I see in so many programmes: TESSA, for example, has been using an African soap opera to disseminate its ideas, introducing teachers into the story lines, we've commissioned over 40 5-minute radio dramas around the issues and dilemmas faced by teachers: in June of this year a BBC World Service week of teacher programmes commissioned by TESSA generated a huge response. 3G telephony is another revolution in communications and the ODL world needs to trial and experiment now. How can the renaissance of radio transform the world of IRI, interactive radio? In my view a grossly underused technique in ODL.
- **Second, new forms of interactivity need building into our plans**. The net is spawning an extraordinary plethora of new modes of sharing and exchanging ideas, new ways of presenting ideas. The public presentation of 'work' is, I believe, a major force of professional learning and development. Jerome Bruner in his magisterial collection of essays, *The Culture of Education*, talked of the power of externalising a record of our

mental efforts. We can now do that in profound and lasting ways. Where can ODL capitalise on the vibrancy of Facebook or YouTube?

- **Third, I believe we should embrace the new thinking behind Open Educational Resources with gusto, embrace Creative Commons Licence with gusto**. Its been like a breath of fresh air blowing through the world of open and distance learning (and still only a gentle breeze in more traditional establishments), but it adds an exciting values dimension to the excitement around technologies, and that is important.

- **Fourth, for professionals we need to put practice first and theory second**. Too many teacher courses ape the music of academic discourse rather than day-to-day real world of the teacher: poorly qualified teachers with overcrowded classes need to know about how to teach reading and numeracy first, and social theories of change in education second. The designers of open learning cannot escape the obligations of curriculum responsibility.

- **Fifth, our systems for working at scale need to be smarter:** open learning courses can be spawned across Africa and in other parts of the world, but often as replications of campus-based courses school-based, open learning programmes need new structures and new forms of curriculum, something my late colleague, Jenny Leach, and I tried to project in our recent World Bank publication on the design of programmes (Moon, B, Leach, J. and Stevens, M., 2005). DFID have funded an offshoot of the TESSA programme, the TEAMS project, Teacher Education at Mass Scale, with the National Teachers Institute in Nigeria, the Open University of Sudan and the Open University (UK) working on techniques of working with cohorts of teachers in excess of 100,000. Something many institutions will need to address if we are to make provision for teachers in anything like a timescale appropriate to the need.

- **Sixth, we have also to become smarter at embedding new technologies progressively as they become available**. I remember conversations with my colleague, Diana Laurillard, who spoke earlier in the week, a decade or more ago when she pointed out the danger of the barnacle approach, i.e. keep the old model and stick some new bits on. We need more studies, more exemplifications of how you ease away from some of the old approaches (text heavy publications, geographically inaccessible tutorials) and ease into the new opportunities offered by web-based, mobile technologies. [And yes, of course, I know we must avoid the damage of moving too fast, but that argument should not be used to rationalise a snail-like pace of change.]

- **Seventh, we need to stop engaging with those pointless exercises comparing ODL to campus-based training**, effectiveness, costs, value for money, and all that. That's yesterday's story. The vast majority of teachers will never have the chance to go near a campus and we need to put our energies into thinking how work, or school-based, models can be rejuvenated.

For me, therefore, these seven issues create seven questions that gatherings like this need to address.

First, how can the curriculum of work-based, professional learning be rejuvenated in forms that are creative and motivating?

Second, what are the new forms of interactivity that could finally displace the term 'distance' from the ODL lexicon?

Third, can we grasp the opportunities of OERs to make our work centre stage, not peripheral to educational reform?

Fourth, in what ways can professional practice be given priority in curriculum design?

Fifth, in what ways can we be smarter at working to scale?

Sixth, how can we, progressively allow the new modes of communication and interaction to displace the 'correspondence course' elements of ODL?

Seventh, how can we conceptualise much more robust models, of work or school-based education and training?

Some very new thinking, requiring the freedom and space to innovate, is needed if we are to have a real response: it is the moment for open learning to genuinely gain the high ground and I applaud the work of organisations like COL and SAIDE that are responding to this challenge.

And it has purpose. When we think about these issues, let us remember where they are rooted. In the needs of teachers like Bilkisu and, most importantly, in the eyes of the children she teaches.

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