Education for the 21st Century: Time for Open Schools to Raise their Game

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Address to the General Body of the Commonwealth Open Schools Association

Sir John Daniel
Commonwealth of Learning

Introduction

It is a pleasure to be with you. I apologise for having to talk to you today rather than during your conference proper tomorrow, but as you know, COL’s big biennial event, the 6th Pan-Commonwealth Forum on Open Learning begins in Kochi this week and we have organised a series of pre-conference events that require my attendance.

Your meeting also falls into that category and we are very grateful to NIOS for hosting it. I value the opportunity to address you because in the last two years I have become much better acquainted with open schooling than I was before. I shall start by explaining the personal journey that stimulated that interest and led directly to my new book Mega-Schools, Technology and Teachers: Achieving Education for All, which was published in English and Chinese earlier this year.

As I wrote that book I came to the conclusion that those of you who work in open schools are far too modest about the role that open schools should play in 21st century education systems. Maybe you have toiled for so long in a part of the education system that has low status that you have failed to observe how things have changed. For large parts of the world the 21st century belongs to open schools, so my purpose today is to encourage you all to hold your heads higher and be more ambitious. That’s why I’ve titled this address: Education for the 21st Century: Time for Open Schools to Raise their Game.

I shall suggest several ways in which you should be more ambitious. First, open and distance learning, or ODL, is booming. You shouldn’t let university people have a monopoly on research into this vital phenomenon of our times. I suspect there are ten papers – maybe even a hundred – published on ODL in higher education for each one on open schooling. Yet at the moment research on open schooling is more important – and more interesting – than adding extra embroidery onto the already considerable literature of higher distance learning.
Second, you should take on a more central role in curriculum development for your national school systems. Open schools are national leaders in translating curricula into learning materials, which can be useful in the regular schools as well as for the open school pupils. You should arrange to be involved on a permanent basis in the processes by which your national curricula evolve. This would at least avoid the situations that some of you have experienced where a major curriculum change was announced and your open schools were left high and dry with quantities of obsolete materials that had to be scrapped.

But your central role in contemporary education goes wider than curriculum. In nearly all countries, even very small ones, the education system is terribly compartmentalised. Different ministries and departments often do not coordinate their efforts and institutions at different levels of education live in their own solitudes. To be effective we need to take inspiration from biology and think of education in terms of an ecosystem. Open schools should a major node in such a system.

So that is my agenda. Let’s go back to the beginning. Why will the 21st century belong to open schools?

Three key imperatives for education

There are always plenty of challenges in education, both nationally and globally, but three stand out as being of overwhelming importance for the next 20 years. Open schools have a role to play in addressing all of them.

The Secondary Surge

The first is what I call the secondary surge. For the last twenty years – and for some years to come – the major educational preoccupation of developing country governments and international agencies has been the campaign for Universal Primary Education or UPE. I know this campaign well because from 2001 to 2004 I was Assistant Director-General for Education at UNESCO and that campaign defined much of my work.

Our problem was that we were all so focussed on achieving UPE that we didn’t spend much time thinking about what would happen if we were successful. And we have been successful. Thanks to the UPE campaign and huge efforts by many national governments, when it comes to getting children into primary school many developing countries have achieved in two decades what took a century for today’s rich countries. There are still countries, notably Nigeria and Pakistan, that will be challenged to meet the goal of UPE by 2015, but most are well on the way.

The result, of course, is that a tidal wave of millions of children – actually hundreds of millions of children – is now heading for secondary schooling. One researcher estimated a few years ago that 400 million children between the ages of 12 and 17 were not in secondary school (Binder, 2006).

There is no chance whatsoever that the majority of these children will be accommodated by the expansion of conventional models of secondary education: the numbers are just too huge. Every possible alternative must be used to let them continue their education. Open schooling is by far the most promising of the available alternatives because it is scalable at reasonable cost.

Climate change
Secondary schooling is important. We have expended so much energy in the last 20 years on promoting the importance of primary education that the case for secondary education has been neglected. Primary education is good, but both parents and children know that what will really make a difference to their opportunities in life is the education people receive after primary school.

Secondary schooling for girls has a very special importance because it is humankind’s best weapon against climate change. The primary driver of climate change is population. The reason that the world has a climate problem is that since the industrial revolution 200 years ago, the earth’s population has increased by a factor of seven. Moreover, since that time the demands that each person makes on the planet’s resources has also increased by a factor of seven, meaning that the impact of humankind on this world has grown by a factor of 50 times.

If we want to stop or slow climate change the first thing we must do is slow population growth. This is where the secondary education of girls is so important. Women with secondary education have, on average around the world, 1.5 fewer children than those without secondary schooling (Cohen, 2008). A difference of just one child per woman means 3 billion more or fewer people on the planet by 2050. Secondary education for girls must be a priority.

Teacher Shortage

The third challenge that I wish to flag is the teacher shortage. This is worldwide problem, not just a developing country problem, and has several causes. The rich world is seeing a massive wave of teacher retirements and, in some cases, horrendous attrition among new teachers. In the USA 50% of teachers leave the profession within five years of qualifying to join it. As well as attrition through retirement, many developing countries have to cope with a high death rate of teachers from AIDS at a time when they need many more teachers to complete the drive to universal primary education and expand secondary education.

I am not proposing open schooling as a solution to the teacher shortage, although it does help countries to deploy teachers and teaching assistants in better ways. However, the curriculum development and delivery systems of open schools can be very helpful in expanding the in-service education of teachers on which so much depends. This is part of what I mean by saying that open schools are a major node in an educational ecosystem for the 21st century that also includes the ministries of education and the teacher education institutions.

Open Schooling: raising the game

The framework for education in the next two decades will reflect those three key educational challenges: the secondary surge; secondary schooling for girls; and the teacher shortage. Against that background let me return to my main theme, namely that it is time for open schools to raise their game. I start with research.

Research

The memory of certain experiences stays with you a long time. I remember a cold day in January 2007 when I visited the World Bank with my COL colleague Mohan Menon. We had gone to the World Bank to talk about open schooling and, although Mohan was in charge of teacher education at COL at that time I took him along because, as a former chairman of NIOS, he knew a lot about open schools.
Our address to the World Bank officials covered the issue that I raised earlier – the secondary surge – and urged them to take an interest in open schooling. They admitted that they hadn’t given enough thought to the consequences of success in the campaign for Universal Primary Education and that they needed to do so. However, development agencies like the World Bank are hugely invested in traditional ways of doing things, which their economists have researched for years.

In the case of secondary schooling, the research, which has been well summarised by Professor Keith Lewin (Lewin, 2008) shows that the difference in unit costs between primary and secondary schooling is much greater in developing countries than in the OECD countries. In the richer countries the unit costs of secondary are less than double those of primary, whereas in Africa secondary costs from 3 times to 8 times as much as primary. Lewin concluded that a country will never achieve universal secondary education unless it can get its national cost ratio down below two.

You might think that such results would have spurred the development agencies to look for ways of lowering the costs of secondary schooling. In a way they have, but always within the classroom paradigm. For example, Lewin notes that ‘some of the policy options with most economic leverage (for getting costs down) are: reducing teacher salaries; increasing pupil-teacher ratios and class-teacher ratios; and increasing teachers’ time on task’. You can just imagine how eager most ministers of education would be to embark on such reforms.

Our World Bank colleagues told us that they were very interested in open schooling but that the Bank could not invest money in new approaches unless they had been thoroughly researched and evaluated, which open schooling had not. At the end of our visit Mohan and I decided that we would get some research going on open schooling. Rather than lose time by applying to the World Bank to funding – although they would probably have given some – we decided that COL would fund it. We started by getting Greville Rumble and Badri Koul to do a comparative study of NIOS and NAMCOL, which some of you will be familiar with.

They did a very thorough job, incidentally turning up some rather sloppy research on NAMCOL by the World Bank on the way (Marope, XXXX). Their book gave a boost to research on open schooling. Frances Ferreira and Dominique Abrioux followed it up with their book Open Schooling for the 21st Century, in which the chapters about different open schools summarise what research results are available.

My message to you today is to encourage research on your open schools. You don’t have to do it yourselves, because your staff are hard pressed, but university education faculties are always looking for good research topics for their graduate students and it is not hard to convince them that research on open schooling is important.

What aspects of open schooling should they study? My advice is to keep it simple. Some of you know the iron triangle by which I often summarise the challenges facing education. The three big issues are access, quality and cost. We want to widen access, raise quality and lower cost – all at the same time. Open schooling can do that, so focus the research on how it does it.

While you are researching access, make sure you also research student success. We all know that dropout, failure and low grades are the Achilles heel of open schooling. Ministers and development agencies know that too, so devote effort to research on improving quality, retention and output. Make sure that cost studies address both the unit costs of enrolment and the unit costs of graduation. Chances are you will still have a good story to tell!
Curriculum

So please encourage research. Let me now turn to curriculum and through that, to my wider point about positioning yourselves as major nodes in national educational ecosystems for the 21st century.

In my own book, Mega-Schools, I pick up on the distinction that Rumble and Koul made between complementary open schools, that simply offer the standard national curriculum in an open manner, and alternative open schools, like our host NIOS, which offer alternative curricula as well as alternative teaching methods. I propose a third type of open school, which I call the integrative open school. An integrative open school not only caters for its own large student body, but acts as a catalyst, a resource, a clearing house and a laboratory for the whole national school system.

It’s time that open schools came in from the margins to the centre of education systems because they have so much to contribute. I suggest that curriculum is the best place for you to start this process. UNESCO research on the quality of schooling shows that lack of learning materials for students and pedagogical materials for students is the major shortcoming in developing countries. Such materials help to get a focus on the curriculum which is also a key element of quality.

Open schools are in the business of producing learning materials for the curriculum. You should do this in the closest possible collaboration with the curriculum departments in the ministries of education and make them see what a valuable resource you can be. The results will surprise you. I remember some years ago when COL helped the Caribbean Examinations Council (CXC) to convert its curricular into self-learning materials for adult students. What happened, which it had not expected, was that these materials were seized on happily by teachers, who were delighted to have the curricula available in a teaching format. We are now working with the CXC to extend this.

This was also COL’s motivation for working with six of your countries (Botswana, Lesotho, Namibia, Seychelles, Trinidad & Tobago and Zambia) to create the complete curriculum of the last two years of secondary school as Open Education Resources. They will be available in both print and eLearning formats. The six countries have divided up the subjects between them and each will adapt the OERs prepared in the other countries to its own national needs. I expect that they will be used in both open schools and conventional classrooms because all teachers love to get their hands on good learning materials.

I should add that one very important by-product of this work is that by the time the materials are finished the countries will have, between them, some one hundred masters teachers who have been trained in curriculum design, instructional design and eLearning. Many of these teachers are in conventional schools and well-placed to play a major role in helping to create the synergy that I am describing between open schooling and traditional schooling.

So far I have simply talked about taking the existing curriculum and converting it into good learning materials. But open schools should also be pioneering new areas of curriculum as some of you, like NIOS and the Open College of UPNG are already doing. Those institutions can innovate more easily because they have their own powers of certification. If you do not then you will have to work closely with the curriculum people in the ministry so that new curricula can lead to certification.

In one area at least I am sure such an approach will be welcome. Most education authorities realise that they have a crisis in the areas of technical and vocational education and training. I will not go into the
problems here but high cost, restricted access and training for skills unrelated to the labour market are just three issues.

I find it admirable that our host institution, NIOS, is tackling all three of these issue at once, and I am particularly impressed that it has achieving parity of male and female enrolment in its vocational courses. Clearly these women, in particular, see greater sense and purpose in education that promises economic independence and a better life.

Curriculum is the place to start, but there are many other ways, which I explore at more length in my book, in which you can advance the notion of an integrative open school. Let me finish by noting three of them.

First, at a time when schemes for schooling reform are afoot in mostly countries open schooling can provide a backstop or a safety net for reforms by acting as a glue that helps to hold disparate elements in the school system together.

Second, most countries are eager to introduce more computers into schools, although it’s hard to point to much success to date. Open schools have to be computer savvy, at least on the administrative side, and are a valuable resource for the whole school system. I have already mentioned the collaborative project for the creation of eLearning Open Educational Resources that COL is carrying out with six countries.

Finally, there are important links to be made between open schools and teacher education institutions. Modern teachers should know how to develop and use learning materials and teacher education will increasingly take place in the schools.

Conclusion

It is time to conclude. Open schooling is an idea whose time has come. It is education for the 21st century. Therefore it is time for you to raise your game, emerge from the shadows and take your place in the educational ecosystem that is needed to achieve the noble goals of education for all. I have tried to represent it here, fully acknowledging that any static representation of a system fails to capture its dynamic and evolutionary nature.

My diagram shows that there is a national school system, including public and private schools and a network of more informal learning hubs, under the authority of the ministry of education. The ministry is also linked to the open schooling sub-system, particularly through its curriculum and examinations function, and this sub-system also relates to the schools, notably as a source of learning materials, and to the learning hubs where it locates some of its study centres.

Also linked to the ministry, through its teacher education unit in particular, is the Teacher Education Institution sub-system. All Teacher Education Institutions have links with the schools and these are particularly strong for school-based teacher education. They will also relate to a national higher education system and to international initiatives.

The learning hubs act as resource centres for teachers, giving them access to a richer ICT infrastructure than they have in their schools. Finally, intersecting with all these systems and subsystems is the community system, which has a highly complex set of sub-systems of its own.
I hope these thoughts have expanded your horizons on open schooling and shown you what a tremendous role you could be playing in your education systems.

References


