
The Commonwealth of Learning and teacher education

Background

Many countries have begun to experience the effect of a shortage of adequately trained teachers to meet effectively the expanding educational needs of their citizens. This phenomenon is by no means confined to developing countries although it is undoubtedly encountered with the greatest intensity there. As Perraton (1993) so aptly sums it up, 'public pressures to widen opportunities for schooling, and the very success of ministries in opening new schools in response to this pressure, mean that demands for schooling have run ahead of the supply of teachers. Teacher shortages have been compounded by attrition as teachers have left a profession whose relative status and income have declined in many countries over the last two decades'. Faced with this problem governments, to quote Perraton further, 'have adopted a variety of strategies for expanding the supply of teachers, raising the morale, supporting their work and improving their skills. One of those strategies involves using distance education'.

By the time the Commonwealth of Learning (COL) came into being in September 1988, several Commonwealth countries were already employing distance education techniques in teacher education. Examples abound. One has only to turn to *Distance Education for Teacher Training*, the publication edited by Perraton to which COL contributed both financial support and professional advice, for confirmation of this. In electing to include teacher education among its top priorities in its first strategic planning period, COL was thus doing no more than responding to a critical and urgent need that had been cited as such by many developing countries of the Commonwealth, who had come to realise that conventional methods by themselves were no longer capable of coping, not only with the issue of quantity of teachers but also with their quality.

The capacity of distance education to address quantity is perhaps easy to comprehend, and indeed its credentials in this regard are pretty well acknowledged. On the other hand it is not often recognised how much distance education is also capable of addressing the issue of quality in teacher education. The ways in which this can be achieved have been summarised in the COL brochure, *COL and Teacher Education*, but they are reproduced here for ease of reference.

'First: the use of centrally produced distance education materials, that can be updated quickly, ensures that all teachers receive the same standard materials. This strengthens general academic background and improves the subject

matter competence of the teachers ensuring that they have the capacity to perform well during training and in the classroom.

Second: the application of distance education in teacher training introduces prospective teachers to key learning and teaching skills associated with the educational media and technologies which they themselves can use in their own classrooms.

Third: with more academic theory and content taught through distance education, teachers in training (will) have more time to emphasise face-to-face practice teaching. The teacher will also have more opportunities to focus on the content instruction, to organise and manage learning, and to evaluate and motivate learners in a manner that promotes self-reliance in learning.'

From both a quantitative and a qualitative perspective therefore, the emphasis which COL chose to accord teacher education from its inception was clearly justified. Nonetheless, the assistance which COL could provide had to conform with the declared objectives and functions of the organisation as contained in the *Memorandum of Understanding* establishing its existence.

On this basis, it was decided that COL's assistance would include, *inter alia*:

- establishing and strengthening the necessary infrastructure to support distance education systems
- facilitating the production and exchange of course materials
- planning and development of materials for the training of science and mathematics teachers by distance
- facilitating inter-institutional links and co-operation
- acquisition and use of modern technology.

Interventions and assistance from COL

In what follows, some of the interventions that COL has made in support of teacher education in the Caribbean and elsewhere in the Commonwealth are described, issues and concerns in delivering teacher education by distance which these experiences have revealed are discussed, and a few observations made about the challenges and opportunities for the Caribbean region.

The Jamaica pilot project

Perhaps the most varied and extensive support given by COL to a project concerned with teacher education by distance is that provided to the pilot project in Jamaica, designed to upgrade from a UWI certificate to diploma qualification some 170 primary teachers. The Jamaica pilot commended itself on several grounds. Relative to the population, the size of the teacher cohort to be trained was considerable, one estimate putting it at around 7,000, and so it was critical to find an alternative and complementary approach to the conventional method, which by itself was obviously inadequate to address a task of such magnitude. Secondly, the particular project, starting as it was with certificate holders, avoided the issue of accreditation, which could well have been a factor to contend with had one been starting with untrained teachers. This starting point also meant that there was already an approved curriculum on which to base distance teaching materials. Thirdly, the pilot involved students who had elected to do the diploma by distance, so one could be

assured of a fairly high level of motivation. Fourthly, the Ministry had on its staff a few people who were familiar with distance education, so a nucleus existed to build on for purposes of implementation. Finally, and not least of all, the Ministry of Education was committed to the project which could thus count on moral and logistical, even if not necessarily financial, support.

The pilot project was the subject of a special consultancy sponsored by COL, and was designed with the full participation of Jamaican educators. It was launched in 1991, and during the period 1991-1993 COL's assistance to the project included, *inter alia*:

- professional assistance with the development, production and printing of learning materials in English, science, mathematics, social studies, art and craft, and music (the actual writing of the materials was done by Jamaicans)
- provision of desktop publishing equipment
- training for tutors and distance education managers
- provision of reference texts and course materials including a complete video series on effective teaching
- support services for students.

A detailed evaluation of the project is yet to be undertaken, but on the surface it appears to have been modestly successful. Of the 170 students who began the programme, 141 presented themselves for the UWI examination in 1993. Ninety one were successful at the first attempt with one obtaining honours and 43 credit, a result which compared favourably with that for the conventional students. Based on this outcome, the Ministry has enrolled a further batch of students, and intends to incorporate distance education as a permanent feature of its teacher education programmes.

University of Makerere, Uganda

Perhaps more extensive from a financial point of view has been the support given to teacher education at the University of Makerere. With COL's help a B.Ed. programme was launched at Makerere in 1992. COL's assistance took the form of facilitating the transfer of the materials of the entire B.Ed. programme at the University of Nairobi to Makerere, and in providing training for course editors, writers and tutors using resource persons from the University of Nairobi. The training programme, aimed at developing self-reliance, has already begun to yield results, and Makerere personnel have been adapting the Nairobi courses, where necessary, in order to improve their appropriateness to the Uganda environment.

Zimbabwe

COL's intervention in helping to strengthen the in-service teacher education programmes for the secondary school system in Zimbabwe is typical of the systematic stage by stage and participatory approach that it considers essential for the success of such projects. In April/May 1992, two COL consultants worked with two Ministry officials to prepare a report and a 5-year implementation plan regarding in-service teacher training by distance in Zimbabwe. The report, 'Distance Learning in Zimbabwe: An implementation report on the establishment of external degree courses for secondary school teachers and of a programme on educational management training and supervision' was

adopted by the Ministry, and in November/December 1992 a COL staff member worked with Zimbabwe officials in formulating plans for a series of training and orientation workshops as a prelude to launching the project. The Zimbabwe project began in 1993, and once again the University of Nairobi is playing a crucial role in the provision of materials and resource persons for training.

Establishing infrastructures

COL's assistance in teacher education, as earlier stated, can range from establishing and strengthening the necessary infrastructure to support distance education systems to simply facilitating inter-institutional links and co-operation. Sometimes it is as small as providing desktop publishing equipment and associated training so as to facilitate the local production of learning materials, or as large as putting in place a network of audio-teleconferencing units. In Guyana, COL is in the final stages of linking up eight audio-teleconferencing sites in different parts of the country. In Kenya an audio-graphics teleconferencing system has been installed which links several learning centres of the University of Nairobi. The Solomon Islands Distance Education Network (SIDEN) is an audio-teleconference system established by COL which links the College for Higher Education and the USP University Centre with seven provincial centres on the outer islands of the Solomons. Local personnel in Mauritius have installed a conference bridge and equipment supplied by COL for several audio-conference sites there.

Except in the case of Kenya, where the installation of the audio-conferencing network was specifically geared towards improving the efficiency of course delivery in the B.Ed. programme, these infrastructures were not specifically established for the purposes of teacher education. This is of course immaterial. What matters is that in Guyana, Mauritius and the Solomon Islands, with St Lucia soon to be in a similar position, an infrastructure exists for enhancing the delivery of teacher education programmes by distance. What is more, the equipment, which was designed especially for COL for use in Third World countries, is robust, reliable, easy to operate and inexpensive to run.

The training of persons as course writers and editors, as instructional designers, as tutors, and as distance education administrators is crucial to any attempt to establish distance education programmes and, even more importantly, to sustain them in a self-reliant manner. The training of distance education personnel, several in the specific context of projects dealing with teacher education, has been one of three top priority functions of COL during its first years of existence. Overall, 16 regional training workshops have been held at which approximately 300 distance educators were trained as potential trainers, in addition to 15 national workshops involving some 375 distance education trainees. In the Caribbean, all told 87 persons have so far been trained through regional workshops and 64 at the national level. The regional workshops focused largely on 'training the trainer' and topics included course adaptation, course design and development for audio-conferencing, student support services, and computers in distance education. National workshops have included course design and development in both Guyana and Jamaica where materials were being developed locally, desktop publishing in Guyana and St Lucia and the use of computers in management in St Lucia. Although there has been no direct attempt made to measure the impact of these

training initiatives in the Caribbean, there are at least two instances where training workshops have been convened by national institutions, in Guyana and Jamaica respectively, using local resource persons. One can perhaps infer from this that there now exists at least a small cadre of persons capable of helping distance education to advance in the Caribbean, whose expertise can be drawn upon by countries in the region.

An important contribution that COL has always seen itself making is in facilitating access by institutions/countries to available learning materials, thus sparing them the often unnecessary and expensive task of developing materials from scratch. A good deal of teacher education lends itself to transfer of materials from one country to another. Such transfers serve a number of useful purposes. They can be a stop-gap while a country or institution develops its own materials, enabling this latter exercise to be carried out in an orderly, more leisurely and professional manner. On the other hand, the materials may be so close to the recipient country's/institution's requirement that only a certain amount of relatively inexpensive adaptation is needed. Often this adaptation can be reinforced by the use of carefully prepared study guides to accompany the materials. But even if they are not used for either of these purposes, transfer materials can serve effectively as models for the inexperienced course writer/designer, or as reference and resource materials to complement the local product.

Surprisingly, not many countries that COL has worked with in the delivery of teacher education by distance have elected to use existing materials from other countries, preferring on the whole to develop their own even where the resources were clearly lacking to produce materials of the kind of quality that was desirable. To a large extent, therefore, COL's role in materials acquisition and development in teacher education, as exemplified by our interventions in Guyana and Jamaica, has focused on helping to improve the quality of local production, through training of course personnel, external review of materials, and provision of exemplars.

There have been a few notable exceptions in relation to the use of external materials, due in large part to the pro-active approach the organisation has taken regarding assistance towards improving the teaching of science and mathematics, particularly at primary level.

Thus COL has in recent times purchased the rights for resource materials developed in the UK for helping to improve the teaching of primary science. The materials 'Success with Primary Science' and 'Success with Managing Primary Science' have been distributed to ten selected sites in the Commonwealth for use and feedback. Among these are the Rudranath Capideo Learning Resource Centre in Trinidad and Tobago, the College of the Bahamas, Belize Teachers' College, and the Dominican Ministry of Education. In addition 70 science videos produced by Encyclopedia Britannica (USA) have been sent to some ten different locations in the Caribbean. Most recently COL has entered into an agreement with Canterbury Christ Church College in Kent, UK to enable the College's Diploma 'Managing Primary Science' to be reproduced and used in developing countries. It is anticipated that at least one Caribbean country will be supplied with the material for trial.

No teacher education programme these days can be regarded as complete if it does not include at the very least an orientation on distance education and its associated technologies. Materials for this purpose are not easy to lay hands on, and as a consequence, in 1992, COL embarked on a project to develop a series of training modules, 'Communication for Trainers'. Initially

there was to be an introductory generic module, serving as a common introduction, and a series of case studies designed to help trainers choose communication modes appropriate to their own circumstances and those of their students. The case studies were to be developed on a regional basis.

In the event, because the cost involved was beyond COL's limited resources, it was decided that COL would produce the introductory generic module only, leaving the responsibility of developing the particular case studies to the respective regions. The module, which has now been completed, was developed for COL by a consortium of Adelaide College of TAFE, the University of South Australia and Queensland Distance Education College, under the co-ordination of a COL consultant. It is expected that it will find a place in, and make a needed contribution to, existing and planned teacher education programmes, whether of a distance or face-to-face nature.

Reference has already been made to the tendency for countries to embark on developing their own teacher education programmes from scratch. Some of this can be attributed to the not-made-here syndrome, but one suspects that lack of information on existing initiatives elsewhere is also a major contributory factor. For this reason, and because of the conviction that several heads working along the same lines are invariably better than one, COL has sought to emphasise the promotion of inter-institutional links and co-operation, especially South-South co-operation.

The benefits that teacher education at the Universities of Uganda and Zimbabwe are deriving from the co-operation these institutions are receiving from the University of Nairobi with COL's help have already been mentioned. Both universities were able to launch, without delay, a B.Ed. using University of Nairobi materials, while employing expertise from the latter university to help to modify the materials and develop others more finely tuned to the circumstances and environment of Uganda and Zimbabwe respectively.

A more ambitious co-operative project, which has sought to capitalise on the experience and expertise of the National Teachers' Institute in Nigeria in delivering teacher education by distance, is the establishment of a satellite communication link between the Gambia, Ghana, Nigeria and Sierra Leone, and the COL headquarters in Canada. The link is to be used to facilitate the sharing and exchange of ideas and materials related to the administration and operation of teacher education programmes by distance. To establish the communication link, COL has been working in collaboration with the Volunteers in Technical Assistance (VITA), and in co-operation with the SATELIFE organisation, to provide the equipment for a satellite network based on pocket radio and low-earth-orbiting satellite (LEO) technologies. Approval of licensing for the respective ground stations, especially in Nigeria, has severely delayed completion of the project, but to date installation of the ground station serving COL headquarters has been completed and through SATELIFE, which already has licensed ground stations in the Gambia and Ghana, COL is equipping terminals to link with SATELIFE's stations for joint access to the satellite. Despite the delay, the link when established will be worth it and will provide an efficient and inexpensive means for the four West African countries to pool resources in teacher education and other fields, and to be able to draw on the resources available from COL as well.

A totally different kind of co-operation which COL has been trying to promote is exemplified by the pilot project being worked out with the Seychelles for offshore delivery of teacher education. The project foresees the

Open Learning Agency (OLA) of British Columbia assembling a menu of appropriate modules in teacher education, drawn from different institutions in accordance with the requirements of the Seychelles, and delivering these courses offshore under COL's auspices backed up by periodic tutorials in the Seychelles. Accreditation would be provided by OLA. The project was inspired by the *ad hoc* distance education degree programme offered in St Vincent and the Grenadines by the University of Waterloo which was successful while it lasted, but could not be maintained when the University of Waterloo found it could no longer subsidise it. In principle there is no reason why in the Caribbean, for instance, UWI or UG could not provide a similar service to the small islands of the region, and the lessons learned from the COL pilot will be useful in this regard.

There is no longer any doubt in education circles in the Caribbean and elsewhere of the immense potential of distance education to address the problems of training and re-training of teachers. Jamaica, Guyana and Belize have already embarked on this course, and several other Caribbean countries have plans on the drawing board. A similar enthusiasm to apply distance education to teacher education exists in other parts of the Commonwealth, and Perraton (1993) describes case studies of programmes in Tanzania, Zimbabwe, Sri Lanka, Nigeria, Pakistan, Australia and the UK, representing a select cross-section of some of the endeavours in this field.

Issues and concerns

While as advocates of distance education COL are understandably encouraged by its rapid adoption by so many newfound adherents to the cause among developing countries of the Commonwealth, the experiences on the whole of where it has been used in these countries have raised certain issues and signalled some concerns. Some of these derive from the failure to appreciate that distance education is not synonymous with correspondence education; others from a lack of the systematic planning and organisation that are important to all educational endeavours, but absolutely critical to a system whose essential characteristic is a separation of the student from the teacher.

Foremost among the concerns is the inadequate time and resources being devoted to the development and production of learning materials, a situation that is more often the norm than the exception. Yet good quality learning materials are the fundamental requirement of good distance education. Writing in the special issue of the *International Newsletter on Chemical Education* devoted to chemistry and distance learning, Ashmore and Taylor emphasised the important feature of self-instruction written materials as prompting students to interact with it rather than allowing passive reading. This they observe can be achieved 'by telling students the objectives of the material, using an interactive friendly style, asking questions and setting problems with answers that reassure students and help them to identify weaknesses in understanding. Other media such as computer-assisted learning, video and audio tapes, home laboratory kits and compact disc technology should be similarly interactive.

It is obvious that more is required in distance learning material than the mere transcription of a lecture onto paper. The element of design is crucial, and the concern is the scarcity of good instructional designers in many developing countries of the Commonwealth, the Caribbean being no exception,

and the lack of any urgency to build up a cadre of such persons. In the Caribbean, as elsewhere in the developing Commonwealth, training in instructional design and in course writing and editing should be high among the list of priorities for teacher education. Furthermore, where materials are produced locally without the benefit of good instructional design inputs, the mechanisms of external review of the materials should be considered obligatory. Here, the Commonwealth of Learning can be of great assistance, as was the case when it supplied a consultant to review some of the materials prepared locally for the teacher education programme in Jamaica.

Of course the materials produced for distance education will only be as good as the curriculum on which they are based. Later in this paper some suggestions for innovations in the teacher training curriculum are offered, but at this point a general observation can be made which is best captured in the words of the Paul Hamlyn Foundation's National Commission on Education in Britain, published under the title *Learning to Succeed* – 'By the beginning of the 21st century no curriculum will be regarded as acceptable unless it can be shown to make a contribution to the teaching of thinking'. If we are to improve the quality of education in schools, teachers will have to be able to respond creatively to the particular challenges which each classroom presents, and not be guided solely by a rote procedure learned in the process of acquiring a certificate or diploma. This means the teacher education curriculum will have to teach them to think. The implications of this type of curriculum for the design of distance learning materials are beginning to be recognised.

Kevin Smith has put forward the view that designing distance education programmes is about choosing between alternatives, 'getting the right blend of elements or finding a balance between extremes on a continuum'. He identifies at least five such continua of choice:

- choosing between institutional control of the teaching-learning process and student autonomy
- providing opportunities for both interactive and independent learning
- combining traditional and new forms of teaching to make the most of the technology that is now available and will be available to us in the future
- using the media for the dual purpose of delivering the 'message' and providing the message, that is, giving support to students
- soliciting the 'best' media-mix available to us.

Another concern has to do with the application of distance education in many developing countries where often little attempt is made to use a mix of media in the design of learning materials. The concern stems from the fact that it is now well established that learners benefit from having information presented to them by more than one medium, so where this feature is absent one could argue that students are in some way being short-changed.

There are now a wide variety of media for distance education, many of which are in the affordability range of the majority of developing countries. Apart from printed material of different kinds, there is audio-cassette, audio-vision, teleconference, radio, television, interactive radio, interactive video, computer-aided learning, and computer-mediated learning, for example, electronic mail. If use is to be made of the various media available to enhance distance learning, then there clearly has to be an adequate cadre of persons trained in the use of media for this purpose. The reality to date is that only a few developing countries seem to be making a systematic attempt to build up

a capacity to exploit the potential of the media for education generally, and for distance education in particular. Training in the use of the media is one of COL's priority objectives, but the magnitude of the task facing countries taken altogether is such that COL can only scratch the surface of the problem. It can promote research and demonstrate good practice, but countries will themselves have to commit resources of their own, or seek to access other sources of support, if any serious impact is to be made.

If the quality of learning materials is often a concern, the quality of student support in many distance education programmes gives even more cause for alarm. Despite the fact that the experience of the Open University, and further research since then, have shown the critical importance of good student support in distance education, examples abound of distance education programmes with inadequate levels of tutorial support both qualitatively and quantitatively. Access to library facilities is often minimal; and opportunities for students to meet with lecturers/teachers, as well as with other students, are generally scanty. Often the infrastructure to permit interactivity is lacking, but even where it does exist, teachers and students alike lack the necessary orientation and instruction to make the best use of the medium.

The issue of sustainability of distance education programmes and systems is one which our experience suggests is not being given the degree of consideration it deserves. Newcomers to the distance education scene in particular, who often rely initially on assistance from multilateral and bilateral aid agencies, generally fail to make the necessary provision for taking over programmes of systems established with outside aid. In cases where programmes are started with local funding, the latter is often grossly inadequate for the purpose. The notion that distance education is a cheap option tends to influence the allocation of resources to it. Advocates of distance education sometimes unintentionally leave the impression that distance education should be embraced because it is a good deal cheaper than conventional face-to-face delivery. Distance education is certainly cost-effective, and in some cases it is perhaps the only route to quality education. But the initial investment in materials and communications infrastructure is invariably high even if it does not often match the cost of constructing new conventional education facilities.

Finally, in this list of issues and concerns, which is by no means exhaustive, there is the matter of accreditation of distance education programmes and the associated matter of parity of esteem. Within an institutional framework efforts to address these issues are taking the form of integrating distance education into the conventional system, and creating what is now being described as 'mixed mode' institutions. At the University of Waterloo, for instance, students' transcripts do not indicate whether courses were taken conventionally or by distance, and many institutions are going in that direction.

The problem of accreditation usually arises where courses are taken by distance from one institution and recognition is being sought from a different one. In teacher education, a case in point would be courses offered by the Ministry of Education through the teachers' colleges for which accreditation is sought from the local or regional university. It is easy to say that a situation of this kind should not be a problem if, before the courses are given, there is full consultation between the colleges and university, and the latter's agreement to accredit is obtained. But there are a number of factors that may make agreement difficult to achieve. There can be differences of opinion about the

curriculum, and the ministry and teachers' colleges may well be better placed to determine what is appropriate. The university may not yet have accepted distance education as a valid alternative. And even where it has, questions could arise about the quality of materials and support mechanisms for students being provided by the colleges.

The Caribbean is seeking to address the issue of equivalencies and accreditation generally through the establishment of The Association of Caribbean Tertiary Institutions (ACTI), and the model is one which other regions might well emulate to advantage. ACTI's work understandably has been confined initially to equivalencies and accreditation in the conventional system, but with rapid growth of distance education in the region it is obvious that this will have to become a critically important part of its agenda. Its work will be considerably simplified when all courses/programmes at tertiary level in the region are modularised, and when, in the case of distance education, there exists a sufficient cadre of trained persons to produce as well as review distance learning materials.

Future directions

In keeping with the 'guidelines' under which this paper has been prepared, the final section deals with challenges and opportunities for the region in connection with teacher education, and with the use of distance education in this regard. The order in which the challenges and opportunities is presented is in no way a reflection of their importance or priority.

Distance education is now generally accepted to be a cost-effective means of addressing the issue of quantity in teacher education, and this largely accounts for its rise to prominence in this field. A big challenge now is to use distance education to achieve quality, and some of the inputs needed have already been alluded to, such as the quality of the learning materials (and in this context the use of multimedia to the extent that resources will allow) the quality of student support, the quality of communications infrastructure, and the mechanisms in place for assessment and accreditation. The challenge is magnified if one puts it in the context of achieving quality at the same time as reducing cost. There is clearly scope in the Caribbean in this regard for a greater level of regional co-operation. Similarities in the curriculum at all levels mean that materials produced by one country can be shared with others, costly materials can be produced co-operatively, and resources generally can be pooled where goals and objectives are similar.

Co-operation in teacher education by distance in the Caribbean could be enhanced were the region to adopt a regional strategy in distance education which would seek to rationalise the use of resources, both human and financial. Such a strategy would encompass co-operation in three main areas: communications infrastructures for distance education; materials production; and training of distance education specialists. Of these, perhaps the most critical from the perspective of co-operation, and the one with the potential of yielding the highest dividend from a joint approach, is communications infrastructures. The success of UWIDITE, by definition a regional endeavour, is an indication of what can be achieved through regional co-operation, and the experience can be built on to exploit the potential of video-conferencing which promises to be the major vehicle for communication in the nineties. A study commissioned by COL has demonstrated the economic and technical feasibility of a regional telecommunications network in the Asia-Pacific region,

and the conclusions from that study are just as applicable for the Caribbean. Not the least advantage of a shared, multi-user network such as that proposed for the Asia-Pacific is the collective negotiation it permits with the 'carriers' over the question of tariff. If developing countries like the Caribbean are to derive full benefit from the application of communications technologies to education, then a more favourable tariff structure (one might even say a concessionary tariff structure) is needed for educational purposes. This will only occur if the volume of traffic exceeds a particulate threshold, hence the case in the Caribbean for a regional approach.

It is not only in regard to the medium that there are challenges and opportunities for the Caribbean. Challenges and opportunities also exist in respect of the message. As distance education's role in the different levels of education expands, and the use of communications technologies becomes an accepted part of the teaching/learning process, it will soon be apparent that the teaching profession requires more than the uniform cadre of persons being churned out at the present time. Different persons will be required to be trained to assume responsibilities for different tasks which the new system will demand. Some persons will be course writers, some instructional designers, while others will be specialists in educational technology. Everyone will need to have some introduction to distance education, and be conversant with the techniques of facilitating independent learning among students. All will have to be computer literate. This means then that a significant change will have to be made to the conventional teacher education curriculum to enable these areas of study to be encompassed.

All professionals run the risk of obsolescence, and this is as true of the teacher as of the doctor or engineer. Lifelong learning for teachers as an essential means of maintaining the quality of education in schools should be a declared objective of the Caribbean as of elsewhere. Difficult as it would be to enforce, one can speculate on the desirability of introducing a practice of licensing teachers, with the renewal of license being conditional on the teacher having undergone one or other of various refresher courses on offer, after a given time period. The operative words here are 'on offer', for it would be incumbent on ministers of education to ensure that appropriate courses and the opportunities to take them existed for teachers.

Various strategies for making the continuing education of teachers a reality need to be explored, and the Caribbean should take the lead in pioneering some of them. It goes without saying that distance education has a crucial role to play, and in particular greater use of television and video in addressing a mass audience could be of considerable advantage. Improving how to teach by using video recordings for illustrating good and bad practices is both inexpensive and effective, and much wider use of this technique is advocated. The development of a cadre of 'resource' teachers to enable each school to have in situ professional advice and on-going teacher training, as well as to serve as distance education tutors and conduits for ensuring that the conclusions of research are incorporated into classroom practice, is an innovation that Caribbean countries ought seriously to contemplate.

To reinforce the importance of continuing professional development for teachers, the following suggestions put forward by the National Commission on Education in Britain (loc.cit) are worth considering. The authors of *Learning to Succeed* recommend that:

- all schools, as part of their school development plan, should have a policy for staff development

- all teachers should have a personal development file in the formulation of which they should have had an active role
- every teacher should be entitled to two days each year for INSET outside the school for personal development.

The Caribbean as a region, and through the various mechanisms for regional co-operation in education that it has established, has the capacity to pioneer innovative ways of improving the quality of teachers and teacher education. It is well placed to exploit collectively the potential offered by distance education and its associated technologies in this regard. What is needed is the humble but courageous acceptance of the limitations of the nation state in the region in managing the enterprise of education in the approaching dawn of the 21st century and, on the other side of the coin, of the immense potential of regional co-operation to make the whole more than just the sum of its parts in this dynamic and rapidly changing area of endeavour. The Commonwealth of Learning will, of course, always be ready to be a part of the pioneering process.

In conclusion, educators owe it to the teachers of the region to work together creatively to try and provide them with the knowledge and skills they need to tackle a job that is becoming increasingly more complex and difficult. They are, to quote from the talk given to the Royal Society of Arts by Alan Benjamin, '.... the unsung heroes and heroines of society today. They are blamed for many things outside their control; they work with outdated resources; they have been asked to conform with prescriptive curriculum which at present stifles innovation and enquiry; they are increasingly surrogate parents. In the best of circumstances they can devote only a minimum of time to each student and the system obliges them to "mass educate" because it is simply impossible for each student to learn at his/her own pace'. Alan Benjamin was describing the situation of the teacher in Britain, but it is a sign of the commonality of the problems of teacher education worldwide that he might well have been alluding to the state of affairs in the Caribbean. In conclusion, it is not only regional co-operation from which the Caribbean can benefit in tackling the problems of teacher education, but also international co-operation and, more particularly, Commonwealth co-operation. This is the *raison d'être* of agencies like the Commonwealth Secretariat and COL. The Caribbean should be in the vanguard in ensuring that these agencies are not merely kept alive but given the necessary wherewithal and support to do the kind of job which the future health of education in the region will increasingly need for its sustenance.