Commonwealth Meeting of Specialists:

Distance Teaching in Higher Education

Cambridge, England 6-11 January 1985

Final Report

Commonwealth Secretariat
MARLBOROUGH HOUSE · PALL MALL · LONDON SW1Y 5HX

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Any expressions of opinion in this publication derive from the meeting and are not necessarily those of the Commonwealth Secretariat or of the institutions of participants.

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PREFACE

The Commonwealth Meeting of Specialists on Distance Teaching in Higher Education was called in January 1985 in Cambridge. The meeting had its origins in the work of the Commonwealth Standing Committee on Student Mobility which recommended that the Secretariat should expand its work in distance teaching; that recommendation was endorsed by Ministers of Education at their meeting in Cyprus in July 1984. The aim was

> "to put together information about distance teaching in higher education within the Commonwealth as a guide for decision makers in universities and ministries of education, and to determine roles for Commonwealth action in:
>
> helping the development of individual distance-teaching projects;
>
> co-operative developments and the use of software;
>
> regional initiatives;
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> training".

We invited to the meeting, in their individual capacity, seventeen people from eleven Commonwealth countries and three international agencies. Through the presence of participants from the two Commonwealth international universities - of the South Pacific and of the West Indies - we were able to call on an even wider knowledge, especially of the educational problems of small states. We owe a major debt of gratitude to those who came to a Cambridge winter and gave a valuable week to help guide our policy. We have particular debts to five participants: to Dr Christodoulou of the Association of Commonwealth Universities and Professor Lalor of the University of the West Indies who chaired our sessions; and to Dr Dhanarajan of the Universiti Sains Malaysia, Mr Guiton of Murdoch University, and Mrs Seetulsingh of the Mauritius College of the Air who acted as rapporteurs for us. The names of participants are set out in Appendix 1. We are grateful, too, to the staff at Wolfson Court, Girton College, where the meeting was held, for their warm and friendly welcome

Our meeting focussed on co-operation and on the sharing of resources, and this focus is reflected in our report. And so, while the report is far from being a how-to-do it guide to distance education, we believe that it is a useful guide to the next steps in Commonwealth co-operation for distance education.

Chapter 1: PURPOSE, ACHIEVEMENTS AND METHODS OF DISTANCE EDUCATION

1. Twenty years ago we could not have held this meeting. The oldest institutions of which participants had first-hand knowledge (the National Correspondence College in Zambia and the National Extension College in Britain) were only just beginning work. The Open University was an untried and unpopular idea. Experience was limited to a tiny group of institutions outside the mainstream of education. By the time we met, in contrast, the Commonwealth had some 200 government or university distance-teaching institutions. They range from the British Open University, now second in Britain only to London in the number of graduates it produces each year, to specialist colleges with students numbered only in their scores.

Scale, Audience and Function

2. The largest and most rapidly growing distance-teaching institutions are outside the Commonwealth, in China and in South-East Asia. The two open universities in Thailand, for example, now number their students in hundreds of thousands. Distance teaching has proved attractive to governments where a huge demand for higher education has made it impossible to offer conventional university education to all but a small minority of those qualified to enter upon it. The context of our meeting was that distance teaching seems to offer opportunities for countries and universities faced with that dilemma. But along with large universities created in response to such demands, distance teaching was also of value in some highly specialised areas. The Dundee College of Education, for example, was offering a course in educational technology at a distance for only about a hundred students a year. In between these extremes we had the Correspondence Department of the University of Zambia with some 600 students and the Open University of Sri Lanka with some 8000. There remained problems for those concerned with distance education - of quality, of management, of criteria for success, of methodology. But beyond these, and despite the dramatic growth over the last 20 years, there remained problems of credibility. Distance teaching is still often seen as of marginal importance to education and of necessarily poor quality. We agreed The Secretariat should play an active part in informing ministries of education and institutions of higher education about the achievements, capacity and potential of distance education.

3. Distance teaching has been adopted for various audiences and for various reasons. Some countries and institutions have taken it up as a cost-effective way of producing graduates and one which is particularly attractive where the numbers demanding education are pressing against budgetary limits. In some cases it has been conceived primarily as a way of expanding the supply of trained manpower. But arguments about access are also important: distance teaching makes it possible to reach audiences who would otherwise not have access to education. The needs of remote audiences led Australia, Canada and New Zealand early into distance teaching. And demands for access were an important strand in the thinking which led to the British Open University. In Australia, too, the Technical and Further Education Sector (TAFE) has adopted distance education in an attempt to make vocational training available to adults throughout the country and to meet the demands of those who prefer to study at a distance. Distance teaching offers educational

opportunities to those who are disadvantaged by distance from a university or college and has been used in an attempt to overcome other educational disadvantages as well.

4. Although the categories may overlap we can distinguish a number of different audiences for whom distance teaching has been used. These include:

- Alternatives to secondary education (e.g. the National Correspondence College of Zambia which offers secondary level courses either at a distance or through study centres and Indian Boards of Secondary Education which offer programmes of secondary schooling by correspondence).

- Alternatives to further or higher education (e.g. open universities existing in parallel with conventional universities such as the Open Universities of Britain and Sri Lanka and universities with distance-teaching departments such as the Universities of New England and Zambia).

- Job related or vocational training (e.g. through TAFE institutions in Australia and the Open Tech in Britain).

- Professional in-service or upgrading work (e.g. teacher training projects in many Commonwealth countries of the south and recent programmes in Britain for the training of professional groups such as pharmacists and town planners).

- Community education (e.g. programmes for public education which are not leading to qualifications but helping increase people's practical and social skills, such as programmes of public education run by the Mauritius College of the Air and of community education run by the British Open University).

Some institutions concentrate on a single audience; others address two or more of them.

Methods

5. Many programmes have in common that their teaching combines the use of print, face-to-face study and some broadcasting. Different combinations are used and there is different weighting, in terms of the comparative importance to the student or the institution, of these three media. Print most often carries the main burden of teaching. Face-to-face teaching, with its capacity for immediate two-way feedback and dialogue between student and tutor, or between student and student, is often seen as being of key importance despite the administrative difficulties it entails and the costs which it brings in its train. While broadcasts can be important in creating a public awareness of distance education, they often present difficulties of timing for students and teachers. The British Open University for example, has to put out broadcasts at 5 p.m. before many of its students have got home from work. At the University of the South Pacific where a satellite is available for distance education, the timing of satellite programmes is a major constraint.

6. Just as teaching methods vary, so, too, do organisational structures. These can usefully be classified along two dimensions. First some institutions teach only at a distance while others work in two modes, offering some courses at a distance and others face-to-face. There is a contrast, for example, between the Mauritius College of the Air, an institution defined by the teaching method it uses rather than by its audience, and the University of Zambia where a correspondence department exists in parallel with other departments of the University. Second, in some countries a single institution offers courses at a distance while, in others, universities compete or co-operate to serve their audiences. In Malaysia, for example, University Sains Malaysia is the sole university offering courses at a distance while in Australia five universities and a large number of colleges of advanced education all offer courses at a distance.

7. While we can identify different organisational patterns and set out some of their advantages and drawbacks, it would be wrong to define an organisational best buy. But the variety of experience means that there are important questions of choice about organisation which would confront any institutions moving into distance teaching for the first time. In the light of the Cambridge meeting the Secretariat should produce a review of experience of distance teaching in post-secondary education as a guide to decision makers.

8. Distance-teaching institutions vary, not only in their constitutional structure, but also in the educational strategies adopted for their day-to-day work and in particular in their strategies for developing course material. Some have followed the British Open University's example of arranging for a team of staff to work together over a period of years to produce materials. Others have relied on employing outside writers under contract, whose work is supervised by educators with skills in the production and presentation of material who are employed full-time by distance teaching organisations. Others have used a combination of regular university or college staff with outside consultants (see chapter 3 below).

Quality, Cost and Effectiveness

9. There are sharp differences of view about the quality which can be achieved in distance education. Some argue that it is necessarily a second best, inferior to face-to-face education. Others claim that it has positive advantages, in forcing students towards an individual approach and ability to study and understand which is the aim of much conventional education. Holders of both views may agree that it has particular advantages, as suggested above, in widening access to education, although the severest critics will argue that this is offering a second-best education to those who are already educationally disadvantaged. Resolving the debate is made more difficult by a lack of agreement about criteria of success, and by the lack of data about the educational effectiveness of distance education. The available evidence on these issues is examined in the next chapter.

Chapter 2: COSTS, EFFECTS, QUALITY

10. While we can frame deceptively simple questions, asking whether distance teaching makes economic and educational sense for higher education, it is much more difficult to find clear answers. One of the difficulties is simply that we are short of data. Many distance teaching institutions have been working for too short a time to yield good figures on their graduation rates and few cost studies have been published. We are particularly short, too, of data on the new technology. Both the University of the South Pacific and the University of the West Indies have experience in using satellites but detailed costings which could guide policy for others are not yet available.

Difficulties of Interpretation

11. There are further difficulties in interpreting such evidence as we do have. Some are common to all costing of higher education: we need, for example, to attribute costs to research and to teaching. But there are other difficulties peculiar to the costing of distance education. First, we are seldom in a position of comparing like with like. If we want to compare the effectiveness of distance education as a mode of study we are often forced into comparing the work of mature part-time students working at a distance with that of younger students working full-time and face-to-face. Second, there are particular costing difficulties in the mixed-mode institutions which teach both at a distance and face-to-face: in a number of cases universities have not yet got agreed procedures for allocating costs where the same staff and same institution are working in more than one mode. Third, it is misleading to assume that all distance-teaching institutions are similar in their teaching methods and so in their likely costs. They differ in size, in teaching methods, and in the number of students enrolled in any one course over its lifetime. Even if we leave aside highly specialised courses like those at the Dundee College of Education, there is a dramatic difference between foundation courses at the British Open University, which may have over 100 000 students before the course is revised, and the average number of students on a course in Australia where some 15 000 students have a choice of 870 courses.

12. Some of these problems of interpretation may be insurmountable. No amount of arithmetic can turn apples into oranges. But we are hampered by the lack of an agreed procedure for costing and further work could usefully be done on this.

Cost and Effects

13. Despite the difficulties, some cost information is available and Appendix 4 sets out data on costs and success rates in distance teaching at tertiary level. The fullest figures come from the British Open University where between 55 and 60% of students eventually graduate and do so at a cost of about 62% of the cost of producing a similar graduate through a conventional university. In Australia it is said that there are demonstrable savings through using distance teaching for the TAFE sector. Some very small distance-teaching projects in Britain appear to have favourable costs per graduate.

14. A possible weakness of these comparisons is that they use as a criterion of success the eventual graduation rate. In other words, the assumption is that all the benefits of studying at a distance are gained by those who successfully complete their course and that no costs should be attributed to those who give up part-way, on the grounds that they receive no benefits from their study. The assumption makes calculations easier, but is unacceptable to some educators. One alternative approach suggested was to look at the amount of work done by students and use this as a measure of educational activity. This would, however, be useful for comparative purposes only if we had similar measures for students studying conventionally.

15. It is clear that one should expect a lower graduation rate from students studying part-time at a distance than from those studying full-time and face-to-face. But one small piece of evidence from Macquarie University in Australia is interesting. Macquarie University offers part-time courses both face-to-face and at a distance and finds similar satisfactory completion rates for both groups. The finding suggests that students of distance-teaching projects achieve lower graduation rates not because of their mode of study, but because of their working part-time and as adults, combining study with work and family life.

16. Conclusions are necessarily tentative but two generalisations are possible. First, while graduation rates for distance-teaching projects are generally lower than those for conventional education, both large and small scale projects suggests that one can achieve graduation rates of between 50 and 60% in tertiary education. Second, both large and small scale projects have found that it may be possible to produce graduates at a cost of between half and two-thirds of the cost for a student at a conventional institution. More dramatic savings than these do not appear to have been reported.

17. In looking at the costs and effects of distance education we were concerned that research should not be conceived in too narrow terms and we agreed that educators and evaluators concerned with distance education are urged to encourage and support research and evaluation,

17.1 to address broad issues of educational policy and education effectiveness;

17.2 to examine issues involved in co-operation between institutions;

17.3 on measures to improve access.

We also recommended that the Secretariat should develop further and make available techniques for assessing costs, cost-effectiveness and educational effectiveness, paying attention to the particular needs of mixed-mode institutions.

Chapter 3: TRAINING AND STAFF DEVELOPMENT

18. Staff working in distance education often need training. This is partly because the techniques of teaching, administering or writing

for distance education are different in kind from the work of teaching face-to-face. But the need for training is also a particular example of a more general need for staff development in higher education. The need for training has changed as distance education has developed. When it was an untried innovation, its first enthusiasts were happy to devote time to educating themselves about its methods. As distance education becomes more established, so it is necessary to go beyond the ranks of the first enthusiasts and involve a wider group of university teachers, and offer more formal training.

19. There are various different training needs. Policy makers may need to learn about the potential, characteristics and consequences for education and society of programmes of distance education. Writers of course material, or those concerned with the development of radio programmes or even computer software, need training on the process of converting good face-to-face teaching into permanently recorded material. Where teachers are working in course teams, they may learn much of this from each other as they go along; this has been an important way of in-service training in the British Open University. But many institutions are not able to set up course teams for the writing of materials which increases the need for more formal training. Course tutors need training on the way in which they can best support and help students and mark their work at a distance. Administrators need training in the particular administrative processes necessary for efficient distance education. The training needs of these last three groups overlap: one of the consequences of introducing distance education is that the boundaries between the jobs of administrators and educators shift. Finally distance education has suffered from a lack of good evaluation and research workers and evaluators may need training on the particular needs of distance education.

20. A variety of methods have been used for training and choices between them naturally vary according to the kind of organisation making the choice. Thus, the kind of training offered on writing and editing distance-teaching materials depends upon the precise function of editors and writers in the particular institution. The main techniques used for training have been short workshops, handbooks and manuals, specialised face-to-face courses, distance-teaching courses. (See appendix 5).

20.1 Short workshops have been widely used particularly for training course writers. Many institutions are now in the position where they can run their own training workshops as necessary and there are a number of bilateral programmes between institutions for the training of writers. Where, however, workshops have been arranged on a one-off basis, they have proved of limited long-term value; once the writers trained have completed their work there may be little long term benefits to the institution. It is therefore recommended that short workshops should be seen in the context of the general programme of institutional development. The Open Learning Institute in British Colombia for example, now runs workshops with overseas institutions, with which it is co-operating, on this basis. Where outside resources are used

for training the stress will generally be on training the permanent staff of an institution, often in techniques of editing, course production and management, rather than on the training of writers. An important exception to this arises where one can put together subject specialists in one or more institutions of higher education with specialists from their own discipline who are already experienced in course writing.

20.2 Training materials, handbooks and manuals on distance education now exist. Increasingly handbooks appropriate to a particular institution are being produced by institutions themselves, but there may be a role for the Commonwealth to continue to produce some materials that can be used for training and to distribute information about materials produced by others.

20.3 Short face-to-face courses on the techniques of distance education (eg. offered under Commonwealth Government of Australia auspices and at the University of London Institute of Education) offer valuable training of professionals working full-time in distance education and it is hoped that, where appropriate, Commonwealth finance can be made available to support students on such courses.

20.4 A number of distance-teaching courses have been produced for training in the techniques of distance education. These include a Diploma in distance education at the South Australia College of Advanced Education, the Diploma in the Practice of Higher Education available by correspondence from the University of Surrey and the Diploma in Educational available from Dundee College of Education. It was noted that students have difficulty in obtaining financing to enrol on such sources and (see para 43 below) Commonwealth action to ease this problem was recommended.

21. There were particular advantages in using distance education techniques for the training of staff in higher education generally and for those concerned with distance education in particular. By studying, while remaining in their own institutions, they were better able to integrate theory and practice and might be in a better position to become change agents in their own institutions. Furthermore, there was a particular advantage for someone running or teaching distance education in becoming a student learning at a distance.

22. We recommended that in view of other continuing training activities the Secretariat should concentrate its training work on:

22.1 production of training materials;

22.2 training of specialists in the processes of distance education (e.g. editors, educational technologists) rather than course writers;

22.3 regional workshops where it was possible to bring together subject specialists with experienced writers/editors within their own discipline.

We recommended also that the Secretariat build up its knowledge of distance-teaching specialists, especially in the south, who might be able to undertake training activities and encourage them to join the CFTC register of consultants.

Chapter 4: THE NEW COMMUNICATION TECHNOLOGIES

23. Forty years after the building of the early computer ENIAC and twenty years after the first educational exchange by satellite, it was still unclear as we met how far the much heralded information revolution was solving or aggravating the problems of the south. One participant, from the south, warned us that if we stuck with the donkey cart we would have to put up with the manure. Others warned us as tellingly of the problems they faced in maintaining equipment for today's technologies.

24. It made sense to consider together the use of satellites and the use of computers in higher education: satellite links made possible communication networks which multiplied the power of even the smallest microcomputer. Both kinds of technology had been, and were being, developed principally for non-educational purposes and, for both, it was important that the voice of education, and of the public interest more generally, was heard as these developments went on. It was recommended that the Secretariat, in liaison with other co-ordinating agencies, should support measures to ensure that educational interests were taken into account as new communications technology was developed. In examining the use of computers and satellites it was, however, convenient to review experience separately. (We noted that other forms of technology, such as the use of video cassettes and video discs, had potential for distance teaching but these presented fewer fundamental difficulties than either satellites or computers on which we concentrated our attention.)

25. Two universities (of the South Pacific and of the West Indies) could report first-hand experience of the use of satellites. There had also been experience of education by satellite in India through the SITE experiment, but university links and exchanges had played little part in this. The University of the South Pacific had since 1972 made use of an American experimental satellite to link the main campus at Suva with university centres in other islands, in order to provide tutorial support to distant students. Satellite links were also used for administrative exchanges. In the West Indies the main use of the satellite network, which used commercial channels, was to link the separate campuses of the university. As in the South Pacific the network had been used for administration and for teaching but most of the teaching was for regular degree and certificate programmes, with a limited number of continuing education courses.

26. While these satellite links were important, particularly for archipelago universities, problems remained. Detailed costings were not available but the cost of getting access to satellite networks was a burden on both universities. For USP access to the ATS - 1 satellite for

tutorials was limited to a period from 6 p.m. to 8 p.m. (Suva time) from Mondays to Fridays and 2 to 3 p.m. and 6 to 7 p.m. on Saturdays. Other times were available for administrative purposes and for continuing education. And, while the satellite links might ease communication between campus and university centre, this was not the same as reaching a student who might live a two-hour journey across an island from their university centre.

27. Computers were being used for three purposes in distance education. First, they were being used to help managers in a role which did not differ fundamentally from their use in university (or commercial) management. Second, a number of institutions were using them for the production of teaching material, using word processing programs. In some cases this eased the co-operative production of materials at two sites, where both had compatible hardware and software. Third, computers were beginning to be used to teach students at a distance. In theory, it was possible for students to link their home computers with a university mainframe computer and so achieve long-range, two-way, communication of a highly sophisticated kind. There was, however, little practical experience of this so far.

28. Two broad problems, applying to both computer and satellite developments, confront us. The first concerns the information gap between the north and the south, and the extent to which the new technology might widen or narrow the gap. The second, which is related, concerns the production of teaching material or other software for use either on computers or through satellite broadcasts. We raised, but did not pursue in detail, questions about the production of software which reflected the interests of the south rather than of the north - a theme which lies behind the discussion of co-operation in the next chapter. The issues here are likely to become more important as direct broadcasting satellites, which require smaller and cheaper ground stations, come into use.

29. In considering these and other issues concerning the new technology it is useful to distinguish between current educational experience of the technology, technical possibilities, and policy issues. Bearing these distinctions in mind, it was recommended that the Secretariat should develop a capacity to inform governments and educational institutions, especially of small states, of policy issues concerning the application of communications technology to education.

Chapter 5: MOBILITY OF PEOPLE, INFORMATION AND MATERIALS

30. The long history of co-operation and exchange between Commonwealth universities formed the backdrop to our meeting. One of our intentions was to explore how far that tradition could be adapted to co-operation in distance education. We also had a specific concern with the mobility of students and wanted to see how distance teaching might increase, or make more readily and effectively available, opportunities for students to benefit from distant institutions. As expenditure on study abroad throughout the Commonwealth was estimated at $1.6 billion p.a. it was important to investigate the potential of moving information or materials as well as people.

31. Distance education has one particular advantage over conventional education so far as exchanges and co-operation are concerned: its teaching is tangible and visible. But any co-operation is dependent on information, about the practice of distance teaching, about institutions, about materials, and about copyright restraints on their exchange.

Information

32. Information about the practice of distance education flowed through the normal scholarly channels of publications and symposia. There were, however, difficulties. Much information about the rapidly developing practice of distance education appears in grey publications - occasional reports, studies and other semi-published materials, which tended to be elusive. No one information clearhouse, such as those run by the American abstracting agency ERIC, concentrated on distance education. The International Centre for Distance Learning of the United Nations University, housed at the British Open University, was building up a collection and circulating details of its acquisitions twice yearly, as well as developing a data base on institutions (see para 34 below). They were proposing in 1985 to investigate ways of cataloguing and disseminating information of this kind and of collecting additional types of information. Their finance was, however, not assured beyond 1986 and it was agreed that the value of the International Centre for Distance Learning of the United Nations University was recognised and the Secretariat and other agencies urged to support its endeavours to expand its staff and to achieve more secure funding.

33. There was a limited number of journals with a direct interest in distance teaching including Distance education, published in Australia Media in education and development, published in Britain by the British Council and Teaching at a distance published by the Open University in Britain but with an interest in distance teaching beyond that of its own institution. The three journals were complementary in interest and did not duplicate each other. Both titles published in Britain were at present threatened with closure because of financial cutbacks. The value of the two threatened journals (Teaching at a distance and Media in education and development) was recognised and the Secretariat asked to pass on the meeting's concern at their possible demise.

34. The International Centre for Distance Learning had set up a data bank which contained details of distance-teaching institutions throughout the world, including their levels, methods of operating, scale and programmes and courses available. It was possible to interrogate the data bank at Milton Keynes (but not on line outside the British Open University) and to search it using a variety of descriptors. The value of this work was recognised although it was necessary to monitor the actual use made of the data bank. Whereas in the past the Secretariat had published successive editions of a Guide to correspondence institutions in the Commonwealth it was agreed that in view of the work of ICDL the Secretariat should not produce a new version of its guide. Indeed, the Secretariat's role should not be one of acting as a specialist information service on distance education but should play a

role in passing information to and from information services and putting pressure on them to meet the needs of Commonwealth institutions. The Secretariat also had a role in advising Commonwealth institutions and educators about sources of information including specialist information services.

Co-operation and exchange

35. Although the International Centre (and the International Extension College) had collections of distance-teaching materials, neither had begun on the major task of cataloguing materials or the courses of which they formed part. Major problems of nomenclature (with similar courses and subjects being described differently in different institutions) and scale were involved. As a point of comparison, the British Educational Counselling and Credit Transfer Information Service (ECCTIS) had a staff of 14 and a grant of £900 000 for its three-year development programme. Its database, which was limited to British further and higher education, now had records of 4000 postgraduate taught courses, 10 000 first degrees, and 5000 nationally validated advanced courses. It would be unrealistic to propose major cataloguing activities on distance-teaching materials on a Commonwealth-wide basis.

36. Despite the problems of exchanging information, there was some experience in the Commonwealth of exchanging teaching material and co-operating on its development. The Open Learning Institute of British Columbia, Universiti Sains Malaysia and the University of the South Pacific have some experience of the co-operative production of course material. The University of the South Pacific and the City of London Polytechnic are working together on the development of materials in accountancy and there is interest in their wider use in the Commonwealth. In Australia, while there are barriers to co-operation, there are limited examples of the successful co-operative development of courses. Deakin, Murdoch and Queensland Universities have, for example, jointly developed a course in women's studies. In Canada, the Open Learning Institute and Athabasca University have also co-operated in the development of several courses.

37. We can distinguish various levels of co-operation:

37.1 One institution simply refers enquirers to another where the second is better able to meet the enquirer's needs;

37.2 One institution acts as an enrolment agent for another, enrolling the student, but leaving the teaching and accreditation to the distant institution;

37.3 One institution provides local support, such as tutoring, to a student enrolled with another;

37.4 One institution takes over a course from another, providing its own support and accreditation;

37.5 Two or more institutions co-operate in the development as well as the use of teaching materials.

All these kinds of co-operation are important, both regionally and throughout the Commonwealth. The Secretariat already has interest in regional co-operation in this area and it was recommended that the Secretariat should continue to encourage the development of regional co-operation in distance education. More generally it was recommended that in the light of the total expenditure within the Commonwealth on financing overseas students, the Secretariat should explore further the potential of sharing, exchanging and moving educational resources, as well as moving students.

38. It is possible to identify a number of the barriers to co-operation at any of the levels identified. We have touched on the problem of information: it may simply be difficult to find out about course material. Then there are issues of academic policy: there may be a reluctance to use material developed elsewhere or accredit students who have used such material which derives from long (and important) traditions of university autonomy. There are particular difficulties in importing course material in a mixed-mode institution where attempts are made to match closely what is offered at a distance with what is offered on the campus. Copyright and royalty restrictions may inhibit co-operation or exchange. Two factors may, in contrast, be encouraging the development of co-operative schemes: the possibility of economising on the cost of course production and the advent of new communications technology. Computer aided instruction may demand investment at a level which few institutions can, singly, bear while satellite links may demand audiences larger than most can offer.

39. In exploring further the possibility of co-operation on course material, a model for course development, which takes account of local and distant needs, may be helpful. In order to develop good practice in this area we recommended that the Secretariat should investigate, monitor and report on experience in the co-operative development of teaching materials.

40. There is only limited experience of universities' enrolling and teaching students from outside their own country. The University of London pioneered in enrolling external students, and in developing special relationships with developing universities, but made little use of distance teaching. The British Open University decided as a general policy not to enrol students outside Britain, but did make minor exceptions, including British servicemen, residents of Brussels and people who started their degree in Britain but then moved overseas. The Surrey University Diploma in the Practice of Higher Education and the proposed Wye College Masters course in agricultural extension were intended for students outside Britain as well as within. While many universities now encouraged students within their own country to do part of their degree course at a distance and part on campus, it was not generally possible to do this across national frontiers, although there could be clear benefits in this. Nor had universities yet developed access courses, which would be studied in their own countries by students from abroad, as a means of preparing them for on-campus study. Such possibilities deserved further investigation, although it was recognised that they raised problems of logistics, of providing tutorial support and of accreditation.

41. One particular financial difficulty was identified. While it was possible for students to seek, and sometimes obtain, grants for overseas study through various channels, including Commonwealth channels, it had proved impossible for students to obtain grants to enrol on correspondence courses from distant universities, even where suitable courses were available. A case in point was the University of Surrey course in the practice of higher education.

42. In the light of the discussions on exchange and co-operation it was recommended that in exploring these issues the Secretariat should examine:

42.1 the potential of enrolment by distance-teaching institutions of the Commonwealth of students from countries other than their own;

42.2 issues of accreditation and credit;

42.3 the possibility of mixed-mode study, with some work being done in a student's own country and other work on a distant campus;

42.4 barriers in the way of inter-institutional co-operation including finance, information and copyright.

43. We also agreed that the Secretariat should explore with CFTC and other agencies the possibility of making scholarships available for students working at a distance as well as those travelling to study face-to-face.

SUMMARY OF RECOMMENDATIONS

1. General

1.1 The Secretariat should play an active part in informing ministries of education and institutions of higher education about the achievements, capacity and potential of distance education.

1.2 In the light of the Cambridge meeting, the Secretariat should produce a review of experience of distance teaching in post-secondary education as a guide to decision makers.

2. Costs, effects, quality

2.1 Educators and evaluators concerned with distance education are urged to encourage and support research and evaluation,

2.1.1 to address broad issues of educational quality and educational effectiveness;

2.1.2 to examine issues involved in co-operation between institutions

2.1.3 on measures to improve access.

2.2 The Secretariat should develop further and make available techniques for assessing costs, cost effectiveness and educational effectiveness, paying attention to the particular needs of mixed-mode institutions.

3. Training

3.1 In view of other continuing training activities the Secretariat should concentrate its training work on:

3.1.1 production of training materials;

3.1.2 training of specialists in the processes of distance education (e.g. editors, educational technologists) rather than course writers;

3.1.3 regional workshops where it was possible to bring together subject specialists with experienced writers/editors within their own discipline.

3.2 The Secretariat should build up its knowledge of distance-teaching specialists especially in the south, who might be able to undertake training activities and encourage them to join the CFTC register of consultants.

4. New Communications Technology

4.1 The Secretariat, in liaison with other co-ordinating agencies, should support measures to ensure that educational interests were taken into account as new communications technology was developed.

4.2 The Secretariat should develop a capacity to inform governments and educational institutions, especially of small states, of policy issues concerning the application of communications technology to education.

5. Mobility of people, information and materials

5.1 The value of the International Centre for Distance Learning of the United Nations University was recognised and the Secretariat and other agencies urged to support its endeavours to expand its staff and to achieve more secure funding.

5.2 The value of the two journals of present facing suspension. (Teaching at a distance and Media in education and development) was recognised and the Secretariat asked to pass on the meeting's concern at their possible demise.

5.3 In view of the work of the ICDL (see 5.1) the Secretariat should not produce a new version of its guide to distance-teaching institutions in the Commonwealth.

5.4 The Secretariat should play a role in passing information to and from information services and putting pressure on them to meet the needs of Commonwealth institutions. The Secretariat also had a role in advising Commonwealth institutions and educators about sources of information including specialist information services.

5.5 The Secretariat should continue to encourage the development of regional co-operation in distance education

5.6 In the light of the total expenditure within the Commonwealth on financing overseas students, the Secretariat should explore further the potential of sharing, exchanging and moving educational resources, as well as moving students.

5.7 The Secretariat should investigate, encourage, monitor and report on experience in the co-operative development of teaching materials.

5.8 The Secretariat should examine:

5.8.1 the potential of enrolment by distance-teaching institutions of the Commonwealth of students from countries other than their own;

5.8.2 issues of accreditation and credit;

5.8.3 the possibility of mixed-mode study, with some work being done in a student's own country and other work on a distant campus;

5.8.4 barriers in the way of inter-institutional co-operation including finance, information and copyright.

5.9 The Secretariat should explore with CFTC and other agencies the possibility of making scholarships available for students working at a distance as well as those travelling to study face-to-face.

Appendix 1: PARTICIPANTS

Australia	Mr Patrick Guiton	Director of External Studies Murdoch University
	Mr Jack Foks	Head, Victorian TAFE Off Campus Network
Britain	Dr Gaye Manwaring	Senior Lecturer Educational Technology, Dundee College of Education
	Prof. L.Haynes	Professor of Chemistry, Open University
Canada	Dr Barbara Spronk	Co-ordinator, Urban Studies, Athabasca University
	Mr Shannon Timmers	Research and Development, Open Learning Institute, British Columbia
India	Dr R.C. Das	Vice-Chancellor, Berhampur University
Malaysia	Prof. G. Dhanarajan	Deputy Director Off-Campus Academic Programme, Universiti Sains Malaysia
Mauritius	Mrs M. Seetulsingh	Director, Mauritius College of the Air
South Pacific	Mr A.I. Williams	Head, Distance Education, University of the South Pacific
Sri Lanka	Dr P.D. Gunatilake	Vice-Chancellor, Open University of Sri Lanka
Tanzania	Mr N. Kuhanga	Vice-Chancellor, University of Dar es Salaam
West Indies	Prof. G. Lalor	Pro-Vice-Chancellor, University of the West Indies
Zambia	Mr Richard Siaciwena	Head, Department of Correspondence Studies, University of Zambia
Association of Commonwealth Universities	Dr A. Christodoulou	Secretary-General
United Nations University	Dr Keith Harry	Documentation Officer, International Centre for Distance Learning

International Extension College	Dr Solomon Inquai	Co-Director

Commonwealth Secretariat

Education Programme	Mr Peter R.C. Williams	Director
	Dr V. Selvaratnam	Head, Higher Education Unit
	Dr Hilary Perraton	Education Officer
	Ms Betty Kiwanuka	Secretary

Appendix 2: PAPERS PRESENTED

Overview paper Hilary Perraton	DT/01
Training in distance education Hilary Perraton	DT/02
Costs, effects and efficiency of distance teaching for higher education Hilary Perraton	DT/03
Trends in distance higher education I Peter Raggatt and Keith Harry (Distance Education Research Group, Open University)	DT/04
International centre for distance learning - Documentation and information Dr Keith Harry	DT/05
Staff development in higher education in and/or through distance education Professor Lewis Elton (University of Surrey)	DT/06
New communications technology and distance education: Implications for Commonwealth countries of the South Dr A.W. Bates (Open University)	DT/07
Interstate co-operation in TAFE distance teaching in Australia J.G. Foks	DT/08
The Commonwealth role in distance teaching in higher education Dr V. Selvaratnam	DT/09
Victoria TAFE Network, Australia J.G. Foks	DT/11
Dundee College of Education, Britain Dr Gaye Manwaring	DT/12
University of West Indies Distance Teaching Experiment Dr. G.C. Lalor	DT/13
Murdoch University Patrick Guiton	DT/14
Universiti Sains Malaysia - Off Campus Studies Professor G. Dhanarajan	DT/15
University of the South Pacific - Distance Education Programme A.I. Williams	DT/16
Mauritius College of the Air adapted from Annual Report 1982/83	DT/17
International Extension College Solomon Inquai	DT/18
Distance education in India - present status and trends Dr R.C. Das	DT/19
The Open Learning Institute: Distance Education and Computer Technology Shannon Timmers	DT/20
The Open University, United Kingdom Professor L.J. Haynes	DT/21
Athabasca University and distance education in Canada: an overview Dr Barbara Spronk	DT/22
Distance Teaching in Zambia Richard M.C. Siaciwena	DT/23
The Open University of Sri Lanka Dr P.D. Gunatilake	DT/24

The Association of Commonwealth Universities and the Commonwealth Community of Universities

Appendix 3: TIMETABLE

SUNDAY 6th		1600 Registration 2000 Opening session: P Williams and V Selvaratnam on meeting aims and purpose	
MONDAY 7th	0915-1230 Needs audiences methods: the state of the art of distance teaching - presentation by participants of country/institution experience (Papers DT/11-24)	1430-1700 Continuation of morning session followed by presentation of Overview (Paper DT/01) presented by H. Perraton.	
TUESDAY 8th	0915-1230 Software, information and course development (Papers DT/05 and DT/08) Training for distance education (Paper DT/02).	1430-1700 Working groups on information, training, material development 1700-1730 Plenary - report back	
WEDNESDAY 9th	0915-1230 Costs and cost effectiveness (Paper DT/03) Technical developments (Paper DT/07) V Selvaratnam: The Commonwealth role: future developments (Paper DT/09)		
THURSDAY 10th	0915-1230 Staff development (Paper DT/06 presented by Professor L Elton) Future developments	0915-1230 Staff development (contd)	1430-1730 Future developments
FRIDAY 11th	0915-1215 Working out the Commonwealth role in distance education (session attended by representatives of the Commonwealth Fund for Technical Cooperation and the Secretariat Medical Programme)		

Appendix 4: COSTS AND SUCCESS RATES IN DISTANCE TEACHING AT TERTIARY LEVEL

Table 1 sets out published data on the costs of distance teaching in tertiary education.

The fullest information about comparative costs comes from the British Open University where studies by Wagner (1980) and Horlock (1984) have compared costs for the periods 1971-79 and 1981-82. They are consistent in showing that the cost per graduate is lower than that for conventional universities. Horlock quoted 1982 conventional university cost per equivalent graduate at £11 541 (1984 US$21 472) as compared with the figure of £7054 or £7157 (on two alternative methods of calculating the costs) (average 1984 $13 219) for Open University graduates.

Two, much smaller, distance teaching schemes in Britain have produced figures for their costs. The Doncaster Institute of Higher Education course for the Institute of Quarrying is available both through correspondence and through attendance at the institute. Similarly the South West London College teaches business studies through correspondence or through part-time attendance at the college either during the day or in the evening. While the evidence from South West London has to be treated with care as it appears the production of course material has been under valued, the Doncaster figures, together with those from London suggest that very simple distance teaching projects relying on print without broadcasts, can reach a breakeven point at extremely small figures.

Calculations of the costs for open universities in the third world have been made for Costa Rica and Venezuela and figures, based on budgets, have also been produced for Everyman University Israel and the University of the Air in Japan. In the light of the figures from Costa Rica and Venezuela, Rumble concluded that such Open Universities with 10 000-20 000 students are 'probably critically balanced, in so much as their unit costs are on a par with or below those of campus based institutions ' (Rumble 1982, page 138).

The cost data from Athabasca University in Canada is difficult to interpret, as its teaching system is so different from that of other universities in Canada, but Snowden and Daniel concluded that the costs were probably broadly comparable with those of conventional universities in Alberta.

Table 1: Costs and success rates: distance teaching at tertiary level

Country, institution and date of studies a/	Type of project	Approx annual enrolment at time of study	Annual cost per student in US 1984 $$ b/	Capital included in calculations?	Measure of success Measure used	Rate	Comparison between costs of distance teaching and costs of orthodox education
Britain							
Open University 1971/79	University	25 000	1 872	Yes	Graduates as proportion of final registration	54%	D/t cheaper per graduate produced than orthodox university
Open University 1981/82 c/	University	20 000	n/a	Yes	as above	57%	Cost per graduate through OU 62% of cost per arts graduate at orthodox university, i.e. $13 219 (OU) $21 472 (CU)
Doncaster Institute of Higher Education 1977/78	Professional qualification	75	1 193	No	Final examination passes as proportion of entrants to 3-year course	52%	D/t cheaper. Costs per graduate are: $12 545 conventional $7 566 d/t
South West London College	Professional qualification	150	833	No	Final examination passes as proportion of entrants to 2-year course	35%	D/t cheaper than evening classes but dearer than dayrelease classes. Costs per graduate are: $4 241 day release, $4 764 d/t, $6 268 evening classes.

Canada							
Athabasca University 1979/80 d/	University	4 400 e/	1 238	Yes	n/a	n/a	Costs are within the range of comparable Alberta conventional universities lower than that of small conventional university.
Costa Rica							
Universidad Estatal a Distancia 1980	University	8 150 f/	1 038	Yes	n/a	n/a	Cost per student lower than at conventional universities. Cost per credit comparable with that of larger conventional university,
Israel							
Everyman University 1978	University	8 000	1 266 g/	Yes	Graduates as proportion of enrolment	forecast 37.5%	Cost per graduate estimated $9 582 compared with $18 800-20 500 at conventional universities
Japan							
University of the Air h/	University	7 000	1 922 g/	Yes	-	-	Cost per graduate will equal cost at private day universities, if 50% graduation rate achieved
Venezuela							
Universidad Nacional Abierta 1980	University	13 400 f/	1 571	Yes	n/a	n/a	n/a

NOTES

a. Except where shown, this table is based on table 5 in Perraton (1982) where full references for data are given.

b. Costs have been converted to June 1984 US$, generally using the US Consumer Price index as a deflator.

c. Horlock (1984)

d. Using the figures for 1979/80

e. Course enrolments

f. Full-time equivalents

g. Budgetted, not actual expenditure

h. Muta (1984)

References

J. H. Horlock (1984) 'The Open University after 15 years' (Paper read to the Manchester Statistical Society, 17 January 1984) (Mimeo)

H. O. Muta (1984) The economics of the University of the Air of Japan (NIER, Tokyo) (Mimeo)

H. Perraton (1982) The cost of distance education (IEC, Cambridge)

G. Rumble (1982) 'The cost analysis of learning at a distance: Venezuela's Universidad Nacional Abierta' Distance education 3:2

B. Snowden and J.S. Daniel (1980) 'The economics and management of small post-secondary distance education systems' Distance education 1.1

L. Wagner (1980) 'Costs and effectiveness of distance learning at the post-secondary level' in Unesco (1980) The economics of new educational media Vol. 2 (Unesco, Paris)

Appendix 5: TRAINING IN DISTANCE EDUCATION

The following are among the opportunities for training staff in distance education within the Commonwealth.

Courses

South Australian College of Advanced Education (Smith Road, Salisbury East, South Australia 5109, Australia) offers a correspondence course, leading to a Graduate Diploma in Distance Education. No attendance requirement. First intake of students was from Australia but the course is available to students outside Australia as well. Contact: Head, External Studies. Fees: $24 (but a quota applies and further groups of students, outside the quota, may be enrolled at $1000 p.a.)

Dundee College of Education (Gardyne Road, Broughty Ferry, Dundee, DD5 1NY, Scotland) offers a Diploma in Educational Technology available at a distance. Attendance optional; those attending are eligible for a diploma from the Council for National Academic Awards (CNNA) while those not attending are eligible for a college diploma. Contact: Co-ordinator of learning resources. Fee: for UK-based teachers nil; for other UK applicants £300 p.a.; for overseas applicants £970.

University of Surrey (Guildford, Surrey, GU2 5XH, England) offers a course leading to a Diploma in the Practice of Higher Education. The diploma requires study at a distance of six modules of which one can be on distance education and one on individualised learning. No attendance requirement. Fee: £575. Contact: Course administrator (PHE), Institute of Educational Development.

University of London Institute of Education (Bedford Way, London WC1H OAL) offers a 4-month residential course in distance teaching with particular reference to the needs of developing countries. The course is run jointly with the International Extension College. Contact: Administrative Officer, Department of Education in Developing Countries. Fee: £3100).

Manuals

Open learning in action How to develop and manage an open learning scheme	Council for Educational Technology, 3 Devonshire Street, London W1N 2BA
Writing for Distance Education Administration of Distance-teaching institutions Practical research in distance teaching	International Extension College, Office D, Dales Brewery, Gwydir Street Cambridge CB1 2LV
How to develop self-instructional teaching	Open University, Walton, Milton Keynes, MK7 6AA
Training Teachers at a Distance	Commonwealth Secretariat

Copies are available from
Director
Education Programme
Human Resource Development Group
Commonwealth Secretariat
Marlborough House
London SW1Y 5HX

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