

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 Columbia 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 staff 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 courses 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