

H. Perraton, 1991, *Administrative structures for distance education*, London: Commonwealth Secretariat

3: How does a distance-teaching institution work?

If students are to learn at a distance, they need effective educational and administrative support. This support differs from that needed by full-time students in an ordinary school or college. The planner therefore needs to identify the services to be provided to students and to have some understanding of the nature of these services before taking a decision about organisational structure. The key questions are about the necessary functions of a distance-teaching institution, teaching methods, the production of materials, the work of writers, students and tutors, and the award of credit.

3.1 What services need to be provided by a distance-teaching institution?

In eight areas these functions impose particular demands. In order to meet these demands, a distance-teaching institution needs a well-staffed and well-run central administration which can undertake the planning and scheduling of its programmes in such a way as to ensure that teaching and support services are available to students when they want them. While there is no separate heading below for the central administration, its smooth running is a prerequisite for all that follows.

The way the demands are met will vary from place to place and from time to time. Functions may be shared between institutions or concentrated in one. But, in planning for distance education, it is useful to distinguish between them and to ask where responsibility for them will lie.

The first three functions are broadly educational and the last five broadly administrative.

3.1.1 The design of educational programmes including acquiring and developing teaching material

Any distance-teaching institution needs to decide how it will teach its students and go on to ask how its teaching materials are to be developed. Distance education depends on teaching materials which are produced centrally, whether these are printed or broadcast. As the materials take the place of conventional face-to-face teaching, their quality is central to the quality of the education offered. Arrangements for the development of materials, which have a bearing on the administrative structure chosen, are considered further below (paras. 3.2-3.4).

3.1.2 Tutoring and counselling

Tutoring and counselling students at a distance are rather different jobs from teaching students face to face. A distance-teaching institution will need either to undertake this function or, if it is working in cooperation with / ,partner departments or institutions, ensure that one of its partners is doing it effectively. In doing so it will need to take account of decisions about the way its students should work. Tutors, many of them working part-time, will need to be recruited and trained (see para. 3.5-6).

3.1.3 Award of credit

Some distance-teaching institutions, most notably the open universities, themselves have a status which makes it possible for them to award credit to their successful students while others prepare students for qualifications awarded by other bodies (see para. 3.7).

3.1.4 Production, storage and distribution

Once teaching materials have been designed and developed, they have to be reproduced and distributed. Printed materials or cassettes require physical distribution; broadcast materials require access to air time. Institutions will vary in the way they distribute materials but all will have a responsibility for ensuring that materials reach students when they need them.

3.1.5 Record system

A distance-teaching institution will need to keep records that are probably more systematised than those in a conventional college. Records are needed on students and their progress, on the production, storage and distribution of materials. and on finance. Detailed student records are needed both to control the despatch of

teaching materials and for monitoring student progress, while records on materials need to include information both about their educational strengths and weaknesses and about their production and storage.

3.1.6 Financial system

While any organisation needs to keep control of its finances, the finance and costing of distance education is different from that of conventional education. (The implications of this are discussed in chapter 5.) Administrative systems for costing and for allocating resources need to be adapted to distance education as measures like 'contact-hour' do not translate easily into distance education.

3.1.7 Arrangements for recruitment

Many distance-teaching institutions will need to make arrangements for recruiting students, and informing potential students about what they can offer them. In some cases staff responsible for counselling students are also responsible for advising prospective students about courses that may be of interest to them. In others, a separate information service undertakes this work.

3.1.8 Evaluation

The word is used in more than one sense by educators and often refers to the testing of

individual students. Here, however, it refers to the evaluation of distance-education programmes and institutions. All educational processes are likely to benefit from formative evaluation; less familiar or innovatory ones can be expected to benefit all the more.

These functions need not all be undertaken by the same body. An institution might, for example, confine itself to the production of material for teaching at a distance and leave the job of distributing it or tutoring students to other agencies. Or a distance-teaching department within a bimodal university may itself have quite limited functions and leave other functions to other parts of the university. Tutoring and counselling may be controlled from the centre or may be decentralised or subcontracted to other agencies.

Decisions about teaching methods and about the award of credit will affect the choice of administrative structure, and vice-versa.

3.2 What teaching methods will it use?

Evidence from research and practice suggests that there are no intrinsic differences in effectiveness between educational media although there are major differences in their convenience for students or for tutors, their costs, and their attractiveness for any one purpose or to any one learner. Distance education is likely to be more effective if it can combine print, broadcasting or video material, and face-to-face study rather than relying on a single medium. The precise choice of media is likely to be determined by the infrastructure of communications (see para. 2.3 above) and by the comparative costs of different media (para. 5.3 below). Print is indispensable: students need a permanent record of their work and most of their learning will be done from a printed text.

The two qualities that distinguish broadcasting from print - that it conveys speech rather than its symbols and that it is instantaneous - are both important in determining its role. If broadcasting is available it can convey enthusiasm and stimulation, and overcome a student's sense of isolation, in a way which is given only to the rarest writers of prose. The immediacy of broadcasts also make it possible to communicate with students without the danger of postal delays. Audiocassettes, or videocassettes where students have access to videocassette players, can in many cases replace broadcasting but will not, of course, provide this immediacy, or keep the institution in the public eye or ear. They will, on the other hand, allow students to use recordings when they wish without being locked into a broadcasting timetable. (This may be double-edged: there is some evidence that a fixed timetable encourages students to watch or listen rather than to postpone doing so.) Broadcasting and cassettes can, of course, be used together. Universiti Sains Malaysia, for example, uses broadcasts for counselling and for teaching courses with large enrolments and audiocassettes for more specialised courses.

Face-to-face teaching allows both immediate and two-way communication. It can help learners relate their mass-produced learning materials to their own environment and their own interests. Perhaps most important of all, face-to-face dialogue allows the learning to move in directions that were not foreseen at the time the lesson was planned or written. Beyond its general value it has a particular strength for teaching practical subjects or languages where effective learning requires an immediate response from learners.

The varied strengths of different media reinforce the claim that students will benefit where it is possible to combine them. The choice of media for any one course, and the balance between them where several are used together, will be determined by the nature of the subject, the educational background of the learners, and practical issues of cost and convenience. In turn, the extent to which a distance-teaching institution plans to use any particular medium will affect its organisational structure and its relationship with other bodies. If, for example, it is to make regular and heavy use of broadcasts then it may need to employ specialist staff and facilities that would not be justified for merely occasional use.

3.3 Who will prepare and produce materials?

There are four possibilities. First, an institution may, appoint its own academic staff who themselves produce most of the teaching materials. This decision implies that the institution will establish academic faculties or departments comparable to those of a conventional university. This has become the most usual structure for open universities. Second, its own staff may commission materials from writers outside the institution, in this case its staff will need the expertise to identify writers, and to edit their work, but will probably -not be organised on a faculty basis. The Open Learning Agency in British Columbia, for example, draws its writers from educational establishments throughout the Province and beyond and does not have an academic faculty. Third, where a university teaches both face to face and at a distance, it may expect its academic staff to teach both externally and on the campus. In bimodal institutions of this kind much course material may be written by full-time academic staff, but not by staff who devote most of their time to distance education. Fourth, some institutions acquire materials from others. The Open Learning Institute of Hong Kong, for example. works mainly by using course materials which were produced in open or bimodal universities and for which it provides tutorial support. By acquiring materials, or the rights to them, an institution may be able to start work more quickly than if it has to develop everything for itself although it may still be necessary to devote time and resources to adapting such materials.

In practice, any institution is likely to employ writers on several different bases. Even if the institution looks mainly to its own staff for writers it is likely to go outside for some purposes: there may be too little work to keep a particular specialist busy

or the specialism may be so rare that it is impossible to compete with an existing institution for the academic's services.

In all cases it will be necessary to make contractual arrangements with course writers. These arrangements need to ensure that the institution has the necessary assurance of the quality of the materials being written and that it has an adequate measure of control over materials produced in its name. At the same time, contractual arrangements will need to protect the academic reputation of any writer whose name is associated with them. Where a distance-teaching institution's own full-time academic staff are writing materials these matters are likely to be covered by their contract of employment. In bimodal universities, or where outside writers are used, a series of administrative issues arise. Will writers be paid, over and above their salary, when they write courses? Will they be relieved of regular teaching duties while they are writing? Can they be seconded to the staff of the distance-education department? Who will own copyright and what control will writers have over the long-term use of materials with which their names are associated? What choice will a distance-education department in a bimodal institution have in the selection of course writers and what sanctions will it be able to employ if their work arrives late or is unsatisfactory? While it is not, of course, necessary to answer all these questions at the planning stage, it makes sense to keep them in mind in considering alternative approaches to course development and their implications for the choice of administrative model.

3.4 How will the writers work?

While lectures are usually given by a single teacher, distance-teaching materials usually need the cooperation of a group of people. They are likely to need a specialist in instructional design. Where they use more than one medium, they may need specialists in broadcasting production, in editing for educational effectiveness, and in graphic design as well as in the subject being taught. A course stretching across conventional subject boundaries will demand writers from different academic specialisms.

The composition of any teams that produce materials will depend on the organisational structure of the institution. Some large institutions may, for example, have broadcasting producers on their own staff while a smaller or more narrowly based institution is less likely to do so.

In some cases the written element of a course is drafted by a single author, working in co-operation with an editor employed by the distance-teaching institution. More often, courses are developed by larger teams which bring together subject specialists, media producers, and editors or educational technologists with pedagogical skills. In open universities, which can rely on their own academic staff, such teams may work closely together, on a more or less full-time basis over a period of some months. Where writers are from outside the institution, and working part-time, such intensive interaction is seldom possible although some courses have been developed in short workshops of two to three weeks. This intensive process may save on writing time but increases the demand on the editor who works on the material after the workshop.

Major difficulties can arise in employing part-time course writers. Potential writers often underestimate the time it will take to produce a course and the demands of their regular job if they have one, normally take precedence over their writing. In any small country the pressures on an academic specialist are likely to be so great, in terms of university work, consultancy, government committee work and the like, that part-time writing becomes a heavy burden. If a writer produces a single course, then there is a comparatively small return to the institution for the time and effort it puts into the training of a course writer. As a result, a number of institutions, and especially those working in the south, advise against employing part-time writers. There are, however, institutions which successfully use part-time writers for much of their work although the majority of these are in the industrialised countries of the north.

No matter how many or how few authors are working on a course, their material will need to be edited. The job of editing goes well beyond copy editing. There are specialist pedagogical skills in presenting teaching material, so that it is effective and useful to students. An editor (or educational technologist or transformer: titles for this person vary from one institution to another) who can bring these skills to bear on authors' texts thus has an indispensable role to play in the production of good teaching material.

3.5 How will the students work?

A distance-teaching institution will need to make decisions about the ways in which its students will work through their courses, and about the support they will receive: these decisions will, in turn, influence both the design of teaching materials and the choice of an administrative structure.

Students in many programmes are likely to work at home. But a distance-teaching institution may decide to make arrangements for them to come together for group study, either for short sessions in an evening or at a weekend, or for a longer period such as a one or two-week summer school. Sessions may be voluntary or compulsory; in subjects with a practical or laboratory component many distance-teaching institutions have made some face-to-face work compulsory in order to match their courses as closely as possible to those of conventional institutions and to ensure that students have adequate hands-on experience.

Decisions will also be needed about pacing. Correspondence colleges in the private sector, which teach for public examinations, have traditionally allowed students to enrol at any time of the year and left them to decide how to pace their work and ensure they are ready for their examinations at the appropriate time. In contrast, many open and bimodal universities require all students to enrol at a fixed time in the year and to work at a predetermined

pace, whether they are working full-time or part-time, on the campus or off it. This facilitates the arrangement of broadcasts and face-to-face courses but at the expense of flexibility for the student.

3.6 How will the students be tutored?

Decisions about the way students should work have a bearing on the employment of tutors and counsellors. Students are likely to need both face-to-face tutors and tutors to mark their written work, most of whom will work part-time, and many of whom may be located away from the institution's headquarters. Tutors may be employed by a distance-teaching institution or the institution may co-operate with other colleges or universities so that the latter take responsibility for providing tutorial support of one kind or another.

In some cases a tutor will also provide general counselling and advice to students. In others the job of counselling is separated from that of tutoring. Many distance-teaching institutions in Australia and Canada, for example, appoint counsellors as well as tutors, encouraging students to take all their general study problems to their counsellor, and to have more frequent contact with their counsellor than their tutor if they feel the need to do so.

The work of tutors and counsellors is likely to be crucial to the success of the programme; good tutoring results in a higher completion and success rate for students. A distance-teaching institution therefore will need to establish a system for the recruitment, selection, briefing, and training of tutors and for overseeing their work. The training will need to take account of the fact that the roles of tutor and counsellor in distance education, where the content of teaching is carried by print or audiovisual materials, are different from those of teachers in conventional education.

3.7 Who will award credit?

This issue turns on the choice of constitutional structure: a fully independent institution may award its own degrees, while other types of institution are likely to prepare students for the examinations of a different body. But there are supplementary questions about the form of awards to be made and the form of examination.

If an institution is to teach for a qualification which it does not itself award, it is necessary to ask whether it can have any influence on the style of examination for its students; an examination designed for internal, full-time students may be less suitable for those working part-time externally. Some universities have taken the view that, to maintain parity of esteem between internal and external degrees, all students must take identical examinations. Other universities, and examining boards, have set examinations specifically for external or part-time students that are equivalent but not identical to those taken by full-time students.

Where a distance-teaching institution has some influence or control over qualifications it will need to make decisions about methods of assessment and, in particular, about the relative roles of continuous assessment and of formal, end-of-course, examinations. Students' views here are likely to be mixed: some will welcome the opportunity to build up marks through continuous assessment while others will see the link between their tutors' assessment of their work and their final credit award as a threat and as something that can jeopardise good relations with their tutor.

Decisions about the award of credit are likely to be linked with decisions about entry standards where some distance-teaching institutions have allowed open entry in the sense of requiring no prior qualification for entrants while others have matched their entry requirements to those of comparable full-time institutions. In either case there will be pressure to ensure that exit standards match those of comparable institutions; the concern to do this is likely to be particularly strong where an institution allows open entry.

Summary

A distance-teaching institution needs to address both administrative and educational functions differently from a conventional school or college. In doing so decisions about its teaching methods will be of prime importance in shaping its administrative structure.

The choice of teaching methods will be conditioned by the nature of the subject, the educational background of the students, the comparative cost of different media, and their convenience for learners and tutors.

Materials may be produced by the regular staff of an institution, by outside writers working on contract, or by staff members of the parent body in a bimodal institution, or they may be acquired from a different institution. They may be written either by teams of authors or by a single author. In all cases they will need editorial work with inputs from an editor who brings pedagogical skills to the job.

Decisions about how students should work will affect the design of teaching materials as well as the organisational structure of the institution. Tutoring and counselling are a key to success; much of this work is likely to fall on part-time tutors and counsellors who will need training and support from the central Organisation.

A distance-education programme will be shaped by decisions about who is to award academic credit for it.

4: What sort of Organisation should it have?

The choice of an organisational and administrative structure for a distance-teaching institution will be determined within a web of economic, social and political circumstances; these in turn will affect the way in which the institution addresses its various functions. There are, however, likely to be opportunities to choose between alternative ways of setting up a distance-teaching institution. At the risk of oversimplification these alternatives are reduced to six organisational models.

4.1 Which administrative structure will best meet your needs?

The starting point for these models is the need to choose between three types of structure: a freestanding distance-teaching institution, a distance - teaching department within a university or college, or a co-operative arrangement between several institutions. The choice of a free-standing model determines that the institution will itself undertake most of the functions identified in chapter 3; either of the other choices leads to a new set of decisions. If we are interested in a distance-teaching department then we need to ask whether it is concerned with a single academic discipline or with several and then go on to ask more detailed questions about the internal and external working of the proposed department. If we are interested in a co-operative structure, we need to work out the distribution of functions between the various partners. The models are set out in figure 1.

The first two models are of free-standing, usually autonomous, distance-teaching institutions whose dominant or sole function is distance teaching. Institutions of this kind are responsible for producing teaching materials, for teaching students and in some cases for examining them and awarding degrees or diplomas. The first model is of a **multipurpose free-standing institution**: it includes open universities, such as the Open University in Britain and the Indira Gandhi National Open University in India, but also includes colleges such as the Tanzanian National Correspondence Institute working under the auspices of a ministry of education and offering courses of various kinds at various levels. Box 1 sets out the case for an open university on model 1.

The second model is of a **single-purpose freestanding institution**; in contrast with the previous model, some distance-teaching colleges have been set up to teach a single subject, especially for teacher training. William Pitcher College in Swaziland, for example, was established to provide distance - teaching courses for the inservice training of teachers.

In contrast, many universities or colleges decide to set up a distance-teaching department which works alongside other departments, specialising in distance education, but within an otherwise conventional institution. The general case for a bimodal institution, which works in these two ways, is set out in box 2.

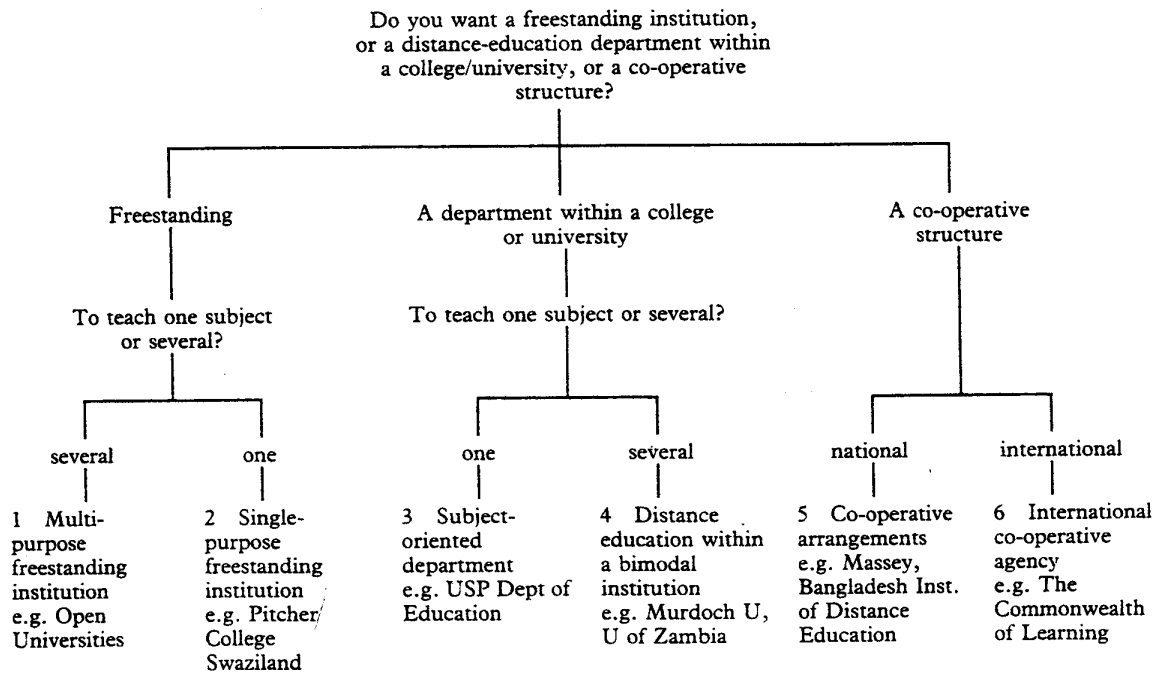


Figure 1: Models of distance-teaching institutions

Model 3 is a **subject-oriented department** within a larger institution, which teaches externally in its own discipline. At the University of the South Pacific, for example, the Department of Education launched the first distance-education programmes for teacher education before the university began to teach at a distance in other subjects.

Where a college or university decides to teach at a distance in a number of different subjects it usually establishes a **distance-education department** (model 4) to take the main responsibility for Planning and running distance education within a bimodal institution. Questions then follow about the organisational structure and working of the department. Some universities have adopted a variant of this model in which the distance-education department is purely administrative, with no pedagogical functions. At both the University of New England in Australia and the University of Zambia, for example, staff can be required under their terms of employment to teach both face to face and at a distance but the role of the specialist department is essentially one of coordination and distribution. Other institutions, such as Murdoch University in Australia, have set up a specialist distance-teaching, department which has a pedagogical function. While it does not employ its own subject specialists it does have staff with educational skills in distance education who play a role in the development and use of materials which goes beyond the purely administrative one. Similarly Deakin University in Australia has a specialist institute of distance education although responsibility for teaching and advising students rests with the faculties and administrative departments which also look after full-time students. Some institutions have gone further in separating off distance-education and adopted a model with an external teaching department with its own subject-specialist activities staff concerned solely with external students. There are important examples of this variant in the United States. The University of Wisconsin Extension, for example, has the responsibility for teaching off-campus students in various ways which include distance education; with a staff of well over 1000 and a full range of academic departments it is as large as some free-standing universities but exists in parallel with the University of Wisconsin.

There are several different versions of the final two models of co-operative arrangements in which institutions work together to teach students and in which the various functions are distributed between the parties instead of being concentrated in one institution. Some of these provide for national and some for international co-operation. Under model 5 of **national co-operative structures** the functions of preparing materials, of giving tutorial support to

Box 1: The case for an open university

The 'classic' structural model for a distance education system is undoubtedly the purpose-built system which teaches only at a distance. . . . The arguments in favour of purpose-built distance education institutions stem from the conviction that the administrative structures of conventional educational systems are not the most suitable ones for developing and managing distance systems. Distance systems engage in a number of quasi-industrial processes. Their academic staff are a part of the production process, required to work in a disciplined manner and deliver the products of their labour to the production departments on time. The 'best' results are likely to be obtained where the 'corporate culture' encourages disciplined adherence to production schedules, with academics subjected to managerial controls and accountable for their work in ways that are at variance with the almost complete autonomy they enjoy in conventional universities. It is also said that the requirements of distance students are likely to be better served if the institution is wholly dedicated to their needs. It is easier for purpose-built distance education institutions, or at the very least a self-contained and relatively autonomous distance unit operating within a mixed-mode institution, to develop new courses to meet the needs of distance students - particularly where they are adults studying part-time. Autonomous purpose-built distance education institutions or units are also thought to be more appropriate where the characteristics of the target audience are significantly different from those of the campus-based students, as is the case where the latter are largely young adults at the tertiary stage of their initial education while the former are adults with distinctive - adult - approaches towards learning. Otto Peters, former head of the German Fernuniversitaet, believes that the pedagogy of distance teaching is different from that of conventional systems and for that reason too it is better to have separate systems.

Finally, it has been suggested that significant innovation is more likely to occur outside the framework of traditional educational institutions. In both the United Kingdom and the Netherlands the traditional universities showed little interest in distance education at the time when consideration was being given to the foundation of the British and Dutch distance teaching universities.

adapted from Rumble 1986, pp 104-5

students, and of awarding credit may be carried out by different partners. In New Zealand students can enrol for distance-teaching courses with Massey University but receive credit for the work they do from their local university. The Bangladesh Institute of Distance Education trains teachers at a distance, working with the University of Raishahi which provides academic supervision and awards degrees, and with teacher-training colleges which provide face-to-face support for students. The Chinese Television University produces materials which are used by a federation of universities who provide tutorial support to back the centrally produced courses.

Co-operative arrangements need not be permanent, or all-purpose. In Australia, for example, three universities co-operated on the development and running of a degree-level course in women's studies, where it would have been difficult for any one of them to offer the course on its own, and where the universities were not working together on their whole range of programmes.

All these examples are of co-operation within national frontiers. Co-operation is, however, also possible internationally so that we have a sixth model of **international co-operative structures**. Commonwealth Heads of Government agreed in 1987 to set up The Commonwealth of Learning in order to promote co-operation in distance education within the Commonwealth and to facilitate the sharing of resources among Commonwealth colleges and universities. The Commonwealth of Learning is launching and running programmes in which institutions share existing teaching materials and work together to develop new materials. It is also promoting cooperation in training, information and research. The functions of The Commonwealth of Learning are set out in box 3.

Several other institutions have recently been established to promote international co-operation in distance education. With support from Canada and France *the Consortium international francophone de formation a distance* (CIFFAD) has been set up with broadly comparable objectives to those of The Commonwealth of Learning. The European Association of Distance Teaching Universities is beginning to work on the sharing and joint development of teaching material. There are proposals for similar work in Latin America.

Box 2: A bimodal university

The fear is sometimes expressed that if on-campus and off-campus education are combined in a single institution the on-campus component will take precedence and off-campus students will be secondclass citizens. At Deakin University we have shown that the combination with on-campus students need not preclude a high standard of provision for off-campus students. This has been done on a relatively small scale: Deakin had about 3000 off-campus and 2000 on-campus students in 1981, the fourth year of the off-campus operation. . . .

Deakin University policy is to minimize the differences between on-campus and off-campus students. However, we did not adapt on-campus courses for off-campus use. On the contrary, we proceeded the other way round. We prepared structured learning materials including plenty of student activities. The materials were prepared by course teams and were professionally edited, designed, and printed in an attractive format. We hoped that if we could solve the educational problems of the off-campus students, those of on-campus students would pose no great difficulties. Indeed we saw several advantages to this approach.

1. Self-instructional materials provide consistent quality of instruction. Unlike lecturers, learning materials do not have 'off days.
2. The use of self-instructional materials is in theory good educational practice. Staff in the School of Education felt that at last they would be able to practice what they preached. Hitherto they had to spend much time standing in front of their classes telling students that they should not just stand in front of their classes telling them things. Now they could encourage learning through activities, just as they wanted their student teachers to do when they got out into schools.
3. Staff radicals saw the new mode as a liberation. Students would be liberated from the constraints of the traditional lecture and tutorial system and staff would be liberated from the lecturing grind and free to teach in more interactive ways. . . .

Delivery and support mechanisms are quite different for the two types of student. Off-campus students get study guides, readers, audio tapes, and informal supplementary material such as newsletters through the post. There is no compulsory attendance for any kind of teaching. Optional 'I support is available at eleven locations. . On-campus students studying in the 'open' mode, that is, using self-instructional materials, do not get formal lectures. Typically they have two hours a week contact time used in various ways.

7evons 1982, pp 126-7

Any distance-teaching institution may therefore wish to consider the potential for international cooperation as it gets under way. But, so far, such schemes are not a substitute for national developments but an addition to them. They are not enrolling students directly but are providing services to back up the work of national institutions.

The six models are, of course, somewhat arbitrary and there are both possible and actual hybrids between them. In several cases an institution has broader functions than this account might suggest. The Indira Gandhi National Open University, for example, serves both as an autonomous institution, teaching its own students, and as a co-operative body where it has coordinating and funding responsibilities for the other Indian open universities. Similarly the Lesotho Distance Teaching Centre and Tanzania National Correspondence Institute are multipurpose institutions (model 1) but in their teacher education programmes work within a co-operative framework that might be classified as model 5. The models do, however, serve to compare the advantages and drawbacks of various approaches.

4.2 How do you choose between structures?

The choice of model is likely to be determined by the scale of the educational needs to be addressed, the educational purpose, and the available resources.

Scale comes first. The open universities set up in Britain in 1969 and Thailand in 1978, for example, planned from the outset to recruit students in tens of thousands and build up to a student body of 100 000 or more. At this scale it is worth considering the establishment of a free-standing institution such as an open university, with a full range of functions (model 1), and it may be unrealistic to consider any other option. In contrast it would not make sense to

consider setting up such an institution if the intention was to recruit only a thousand students. In Malaysia, for example, doubts about the viability of degree-level, distance education led to the choice of a bimodal approach with the off-campus programme of Universiti Sains Malaysia recruiting students in hundreds rather than thousands. Scale will be affected by the size of the institution's catchment area and by the existing opportunities available for part-time study.

Educational purpose is likely to be the next determinant of choice after scale. Where the purpose is narrowly defined, as for example in programmes for the upgrading of teachers, the choice is likely to be limited to a single-purpose distance-teaching institution (model 2), or a department within an existing institution (model 3) or a co-operative scheme (model 4). The level at which a new distance-teaching institution is to work will heavily influence the choice of model; it may be difficult to set up a unit within another institution (models 3 and 4) if the parent institution has no experience of teaching at the level concerned. Thus a distance-teaching institution working at secondary level may fit uneasily within a university although it will not necessarily do so: the University of Nairobi successfully housed such a unit for many years.

The level and nature of the human, physical and financial resources that are likely to be available in turn affect the choice of model. If resources are severely constrained some models may be unrealistic. Small countries with a limited educational

Box 3: The functions of the Commonwealth of Learning

I ESTABLISHMENT OF THE COMMONWEALTH OF LEARNING

1 There will be established an institution to be called 'The Commonwealth of Learning', an Agency which will be an international Organisation with member countries of the Commonwealth, through their Governments, as participants.

II PURPOSE AND FUNCTIONS

2 The purpose of the Agency is to create and widen access to opportunities for learning, by promoting co-operation between universities, colleges and other educational institutions throughout the Commonwealth, making use of the potential offered by distance education and by the application of communication technologies to education. The Agency's activities will aim to strengthen member countries' capacities to develop the human resources required for their economic and social development, and will give priority to those developmental needs to which Commonwealth cooperation can be applied. The Agency will work in a flexible manner and be capable of responding effectively to changing needs. It will serve the interests of Commonwealth member countries and of the Commonwealth itself, working in cooperation with Governments and other Commonwealth agencies and educational institutions and doing so in a way that is consistent with the principles that have guided the Commonwealth. In performing its functions the Agency will seek to ensure the appropriateness of programmes and of distance-education techniques and technologies to the particular requirements of member countries.

Extracted from Commonwealth Secretariat 1988

infrastructure which already have difficulty in staffing a single conventional university are likely to have difficulty in finding the staff for a separate open university.

Small states are, in any case, likely to be constrained in the way they use distance education or establish distance-teaching institutions. Where populations are low, it is difficult to get the economies of scale which make distance education look economically attractive. But, at the same time, the isolation of small island countries suggests that distance education can have a role in bringing into the country educational resources that would not otherwise be available. Countries in the Caribbean and the South Pacific have been able to resolve that dilemma by calling on the resources of the two regional universities, both of which have launched programmes of distance education, and administering distance education through the existing structures for off-campus education. The price of this is that a unit teaching at a distance in one of these countries necessarily lacks the autonomy that may be enjoyed by institutions in larger countries.

4.3 How much autonomy are you seeking and how will this affect your activities

In many cases an examination of scale, needs and resources will not be enough to determine the choice of model and the decision is likely to turn on the advantages and disadvantages of seeking a particular degree of autonomy. If we classify the models, according to the degree of autonomy they allow the individual distance-teaching institution, then the open universities lie at one end of the scale and some of the co-operative structures at the other. Autonomous institutions have the greater freedom to determine their own ways of working, and are more likely to undertake the full range of functions needed for a programme of distance education (see para. 3.1 above). At the same time, their autonomy means that they are constitutionally separate from partner institutions with whom they may need to co-operate. Decisions about autonomy may themselves depend on the ease with which a new institution can call on support from other government and nongovernment agencies.

In considering the desirable degree of autonomy it is necessary to start with political realities: there may, for example, be a political commitment to establishing a free-standing institution which could not be discharged by any alternative. The political realities may, however, work the other way: in some circumstances it would be politically unrealistic to propose the establishment of an autonomous institution in the face of opposition from powerful educational or political interests.

Autonomy is double-edged. It will give the freedom of action to determine curricula and develop courses and teaching methods tailored to the needs of external students, without needing to consider how these fit with arrangements for conventional, full-time, students. On the other hand a freestanding autonomous institution has to earn a status for its work; if it is to award degrees then these may not command the same respect as those of a well-established institution, even if the latter now allows students to work for them in unconventional ways.

An autonomous institution, too, may need to devote more attention and resources to arrangements for cooperation with other bodies than is necessary for a unit which is part of a larger institution.

Within the political constraints, it is then necessary to ask questions about the various services which a distance-teaching institution will need in order to meet its functions. Ease of access to services from other institutions may determine how far it is desirable or realistic to seek a degree of autonomy or a particular form of co-operation. If, for example, a distance-teaching institution needs help from particular institutions in providing support services for students, or access to a given group of academic staff as potential course writers, then these requirements will shape its decisions about autonomy and dependence.

Where political realities and the availability of services leave the question open, you may be faced with the fairly luxurious question of what you would do best, and prefer to do, within the new institution and what you would prefer to leave to others.

Figure 2 summarises the functions undertaken by distance-teaching institutions following models 1 to 6.

4.4 How can we compare the models?

Following this general discussion we can compare the advantages and disadvantages of the six models set out in figure 1. The first comparison is between the free-standing institutions (models 1 and 2) and the bimodal ones (models 3 and 4) in which the same institution teaches both conventionally and at a distance.

Free-standing institutions see their concentration on distance education as a positive advantage which means that they can develop teaching methods and course materials with the sole interest of students learning at a distance. Conventional university structures may, in contrast, inhibit the development of the best practice for students learning at a distance. Conventional institutions, too, may regard distance education as a poor relation which lacks esteem and in consequence may be reluctant to allocate it adequate resources. Advocates of bimodal institutions argue, on the other hand, that, where the same courses are available in more than one mode at the same institution, the students benefit from the esteem that comes from a conventional university and the demonstrated parity of standards, and from the ability to move from one mode of study to another.

In practice, the choice between single-mode and bimodal institutions is likely to be strongly influenced by the political and educational context within which the institutions are working. In Australia, for example, where education is a provincial rather than a federal responsibility, and there was no obvious base from which an open university could be established distance education has grown up in bimodal institutions. In Britain, it was possible for

there to be a national initiative; as the existing universities were generally opposed to the development of an open university the setting up of a fully autonomous and freestanding institution was probably the only way that would have worked. In India the establishment of the Indira Gandhi National Open University as an autonomous university with wide powers marked it off as something qualitatively different from the existing correspondence departments within bimodal universities.

If the decision is for establishing a bimodal institution, perhaps by introducing distance education to an existing college or university, or a cooperative structure then a further set of choices has to be made about the functions which the distance-teaching institution or department will undertake. These will determine the choice between variants of the bimodal model (3 and 4) and possible co-operative schemes (models 5 and 6). The choice will often turn on the control of teaching (see para. 4.2-3 above). If the same institution plans to develop teaching material and provide tutorial support for it, then it is likely to choose one of the bimodal models. If, in contrast, it plans to concentrate on the production of material and leave tutoring to another, perhaps more local, organisation, there will be advantages in seeking a co-operative structure. The Open Learning Institute in Hong Kong, for example, has developed co-operative arrangements with other institutions of tertiary education in Hong Kong to provide tutorial support for its students, and working with universities outside Hong Kong from which it is buying teaching materials. In developing this pattern of work it has built on the experience of the earlier Open College of Hong Kong whose methods of working are described in box 4.

FUNCTIONS	MODELS					
	1 multi-purpose freestanding institution	2 Single purpose freestanding institution	3 Subject-oriented department	4 Distance education dept in bimodal institution	5 Co-operative arrangements	6 International co-operative agency
Design of undertake or Educational programmes and materials	Undertakes with own or outside staff	Undertakes with own or outside staff	Undertakes usually with own staff	Undertakes mainly with staff of parent institution	Likely to be shared between partners	May share with partners
Tutoring and counselling	Undertakes	Undertakes	Undertakes	Undertakes but responsibility may rest in other part of parent instn	May be undertaken by different partner	Likely to be undertaken by national partners
Award of credit	OUs likely to award own	May award	Likely to be responsibility of parent institution	Likely to be responsibility of parent institution	May rest with one partner	Likely to rest with national partners
Production, storage, distribution	Undertakes	Undertakes	Undertakes	Responsibility may rest with other part of parent instn	May be shared between partners	Some may be done centrally but likely to be done by national partners
Record system	Essential	Essential	Essential but may be integrated with that of parent instn	Essential but may be integrated with that of parent instn	May be more limited if no students enrolled direct	May be more limited if no students enrolled direct
Financial system	Essential	Essential	Essential	Essential	Essential	Essential
Recruitment system	Necessary	Necessary	Necessary but may be integrated with that of parent instn	Necessary but may be integrated with that of parent instn	Likely to rest with one or more partners	Unnecessary if no students enrolled direct
Evaluation	Desirable	Desirable but may rest with another dept of parent institution	Desirable but may rest with another dept of parent institution	Desirable	Desirable	Desirable

Figure 2: Functions undertaken under various models of distance-teaching institutions

Similar questions about function and control arise in comparing the different variants of model 4 of a bimodal institution teaching at a distance in a variety of subjects. One possibility is to establish a distance-teaching unit with purely administrative functions on the argument that academic subject staff should have the sole responsibility for their teaching material so that distance education only needs administrators. It is more often argued that the production of good material, and the provision of tutorial services, demand specialist pedagogical skills which are somewhat different from those needed for conventional teaching. This argument drives us on to the variant in which a distance-teaching unit has educational staff with these skills to work with academics. It is probably more difficult to introduce distance education to an existing institution, where staff were appointed with the expectation that all their teaching would be face to face, than to build it into a bimodal institution from the start.

There are few examples of the remaining variant in which a parallel structure, solely devoted to external students and staffed by a separate group of academics is set up alongside a conventional university, although as noted above it exists among some of the large American land-grant universities.

There is no consensus on a best buy among the six models but four conclusions can be drawn. First, multi-purpose autonomous institutions, including open universities, have a record of success that compels attention. Second, bimodal institutions also have demonstrable advantages. They appear to be most successful where they have established a well-supported distance-teaching unit, with its own educational staff who can remain close to the conventional work of the university but can bring pedagogical expertise to the development of distance education. Third, single-purpose or single-subject departments and institutions appear either to have evolved into broader institutions or to have closed down, suggesting that models 2 or 3 are insufficiently robust, although they may be valuable for doing a specific job over a limited period of time. Fourth, while many educators have expressed scepticism about cooperative structures, their potential for harnessing resources makes them of long-term significance both nationally and internationally.

Summary

The constitution and structure of a distance-teaching institution will follow from its functions

Box 4: The Open College of Hong Kong

The Open College (OC) is organised and staffed in order to offer courses, designed elsewhere, without unacceptable changes in curriculum, pedagogy or examining. The aim is to reproduce each course in such a way as to gain agreement from its originators that exit performance standards are 'the same' as in the originating institution.....

This grade [awarded by the Open College] is guaranteed by the use of examiners or assessors from the originating university for each course. Ideally the assessment is identical. That is, continuous assessment questions, tutor notes on assignment grading, final examinations and marking protocols, are all identical across the two institutions.

Because the OC teaches and examines at the same level as the originating institutions it has credit-recognition agreements with them and other universities. . . .

In raising the students to the exit standards we must be ready to repeat the pedagogy which the originators designed into the course. Again the external examiner or assessor is the judge of this. Consequently we must be catholic in the kinds of support we are prepared to offer and not at all squeamish about allowing different pedagogy in different courses. With the examiner satisfied there is no objection to improving on that pedagogy in the interests of the students....

The most obvious result of using this model is that ten ordinary degree programmes are on the ground and working, five of which will offer honours next year. . . . The chronology is, I think, a fair indication of what might be achieved elsewhere. The Planning Committee of the Open College began its work in mid-October 1981; the first students began courses in mid-September 1982; and the first graduates will appear in August of 1986. All but one-of the graduates will have taken four years. This has been achieved by eight academic members of staff rising to thirteen in 1985-86.

The result of this parasitic strategy has been that a range of worthwhile degrees has been made almost instantly available to any adult in the region who wishes to try them at no cost to the authorities and bearable cost to the student. . . .

Most importantly, the degrees thus gained are of good Commonwealth standard. By this strategy they can be relied on to remain so. They can then act as a useful means to facilitate transfer of students to other universities.

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and the activities which it chooses to undertake or to arrange for other bodies to undertake.

The first stage in choosing a structure is to compare the advantages of free-standing institutions such as open universities, bimodal institutions which teach both conventionally and at a distance, and co-operative arrangements between groups of institutions that collaborate either nationally or internationally.

The choice is then likely to be determined by questions of the scale at which an institution will work, of the nature of the educational needs to be met, of the available resources, and of the degree of autonomy sought.

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