8

SPECIAL APPLICATIONS OF DISTANCE EDUCATION

Distance education as usually applied and thus described in the preceding chapters is aimed at individual students in developed parts of the world who are mainly working in the privacy of their homes, in libraries, or in rooms made available in clubs or places of work. However, there are other types of application of distance education: those in which students are continuously supported by advisers to tutors present with them for much of the time of the learning, and those where students work under primitive conditions. Some applications of special interest will be discussed here.

SUPERVISED DISTANCE STUDY FOR YOUNG PEOPLE

Supervised distance study occurs in schools in sparsely inhabited areas or where there is a lack of qualified teachers. Usually one teacher/supervisor looks after a number of young people undertaking distance study of various subjects at varying levels. Supervised distance study also occurs as entirely individual study when isolated children are taught by distance methods at home, usually with one of the parents as supervisor. Most supervised distance study of the former kind is concerned with secondary education; Australia in particular has much experience of primary distance education of isolated children.

What has been said above about methods and media is largely applicable to supervised distance education. Although the term 'supervised correspondence study' may still be more common than 'supervised distance study', written communication seems to be less dominant here than in other types of distance education. This is mostly because of the face-to-face support inherent

in this type. Further, for many years radio has been a most important communication means in primary education of this kind, both for one-way traffic and for two-way communication (see McGuire (1973) and Fitzpatrick (1982) on Australia's schools of the air). Electronic mail will, of course, be of great importance to supervised distance education of any kind. Taylor and Tomlinson hold that it could even 'signal a new approach to primary distance education' by involving 'the distance education teacher more closely with the isolated child' (Taylor and Tomlinson 1985: iv). See also Vivian (1986).

Obviously, it is extremely difficult fully to describe the practice of supervised primary distance education and the roles of the supervisors in the many individual families where this type of education occurs. Harley (1985) argues in favour of the home as an effective learning environment for children at the primary level. Although there is also much variation in the practice of supervised secondary distance education in classrooms, typically the greater part of each pupil's day at school is devoted to individual learning. This involves reading correspondence courses, consulting reference books, doing exercises, and doing assignments (solving problems, writing essays, etc.), which are to be sent to the distance-teaching organization for correction and comment. The exercises may be done either in writing or, following the instructions of the distance course, by listening in little booths to recordings and/or by the pupil likewise recording his or her own pronunciation in foreign languages. If a pupil doing individual work feels uncertain, he or she consults the supervisor. In addition to individual work, the pupils work in groups. While individual work is done in the classroom, where the relative silence of a library is observed, there are usually special group rooms. The pupils are also given some tuition orally in the traditional way by the supervisor, normally in a group of about five pupils at a time in a group room. The division of pupils into groups is based on what they have in common in their individual learning. They may, to some extent, read different things depending on what choice of subjects they have made, they represent different stages and age groups, and they invariably work at different speeds. The Australian so-called hub class is an interesting, evidently valuable further development. 'In the hub class approach to distance education a classroom teacher has, in

addition, other students linked to the class by a telephone link' (C. J. Dawson 1985: 3). See also Dunnett (1985).

The supervisors' task is to help their pupils in every conceivable way. It is up to them to motivate their pupils and keep them aware of their goals. Completion of each course unit marks the reaching of one goal. If some pupils find it difficult to follow the exposition of the pre-produced course, the supervisor explains it to them, either individually or in groups. Sometimes pupils hesitate over what conclusions to draw from corrections when their assignments are returned from the distance-teaching organization with a specialist-teacher's comments. Here again the supervisor must provide the necessary explanations. The supervisor also has important administrative tasks. He or she must organize the work, which makes it necessary to keep in close contact with not only the individual learners but also the distance-teaching organization. The local timetable must be planned; as must the use of auxiliaries (such as tape-recorders, projectors, and demonstration material) and the arrangements for tests and for record-keeping. Unavoidably, the supervisor must also do some teaching of a more traditional kind because there are things that youngsters usually cannot learn entirely by distance methods, such as pronunciation in foreign languages. Laboratory exercises also require active teaching.

As it is impossible for one supervisor to acquire teaching competence in all of the subjects being learned by the pupils, the advisory and supporting roles are more important than the purely teaching roles. Nevertheless, specific training is required for the types of teaching that the supervisors are expected to give. This is particularly tricky as far as foreign languages are concerned, but it is a problem that can be solved in countries where the choice of foreign languages is limited. In Sweden, where schools insist on reasonable accuracy in English and basic knowlege of at least one other language (German or French), the methods of supervised distance education have proved to be successful also for the acquisition of linguistic proficiency. This is, of course, the result of much attention being paid to language learning, to the training of supervisors, and to consistent use of phonetic transcriptions and recordings.

All this necessarily means that the distance-teaching organizations running supervised distance-study schemes in schools have very special tasks. They include the development of suitable

courses in writing and by other media, the non-contiguous tutoring of the individual pupils, the training and continuous support of the supervisors, and regular contacts with the local schools. Although much can be done by telephone, fairly frequent visits to the schools where supervised distance study is carried out seem to be unavoidable.

Much experience has been gained of supervised distance education and some of it has been duly documented. On work done in this area in Australia, see Rayner (1949); Taylor and Tomlinson (1985); Tomlinson *et al.* (1985); in North America, see Mitchell (1962); Childs (1953); Woodley (1986a); in Israel, see Weissbrot (1969); in Sweden, see Holmberg (1973a).

DISTANCE EDUCATION IN PERSONNEL TRAINING: STAFF DEVELOPMENT

Supervised distance education is frequently applied to personnel training. As a rule a distance-teaching school provides pre-produced courses and non-contiguous tutorial service, whereas the company or professional body concerned offers face-to-face support, classes, laboratory or workshop exercises, personal counselling, and other kinds of on-site service. Many traditional correspondence schools devote much of their work to this kind of training and provide advice to the training officers of companies, organizations, and authorities on the planning and carrying out of personnel training projects. Military units also make use of this kind of service (B. Saxe 1965); some correspondence schools attached to the armed forces of individual nations are also known (such as the United States Armed Forces Institute and Forsvarets Brevskole in Norway).

However, distance education of a more individualized type is also applied in personnel training and staff development. Thus the Centre for Medical Education of the University of Dundee in Scotland runs distance-learning programmes for hospital staff, for instance one on palliation in advanced cancer. It is 'interactive and includes personalised feedback from experts in palliative care' (from University of Dundee pamphlet). Doctors and others active in the health-care professions are also offered a distance-education training programme for a diploma in medical education and a master's degree programme.

There are distance-teaching organizations that (almost)

exclusively serve personnel training in companies. In these cases contracts are made with the companies, not with individual students. An organization of special interest in this context is the Universidad La Salle de Sud América (ULSA) in Argentina, which serves twenty-two Spanish-speaking countries. The non-contiguous tutorial work is done in the central office in Buenos Aires, which insists on a remarkably short turn-around time; every assignment submitted is returned with corrections and full comments within 24 hours of its arrival. Resident directors are in charge of contacts with the client companies in the various Latin American countries. Counselling and study support are offered locally on the basis of agreements between ULSA and the companies concerned (Milanesi 1978).

Sometimes distance education is combined with so-called sandwich courses, i.e. introductory face-to-face courses at the beginning of the study and face-to-face summing up courses after individual study of distance courses, during which students have benefited from non-contiguous tutoring (assignment submission, correction, and comment). An example of this type of training is a course 'Resurs' in personnel management, organization, and rationalization for the various categories of staff in Swedish hospitals, which were studied by several thousand people in the early 1970s. It was a correspondence course of 14 study units with assignments for submission, preceded and followed by two three-day seminars. This distance-education programme was introduced with a view both to reducing costs and to raising the quality of the training. Not only was the first aim reached, but the course output also proved highly satisfactory. It was judged by those in charge of the hospital personnel training to be superior to a previous training programme. Explicit mention of direct practical applications of what had been learnt was made in connection with the evaluation of the course (Staaf 1973: 28 and appendix: 7).

In other cases, similar approaches are applied to the use of distance courses at the same time as face-to-face sessions are inserted into the individual study of the distance courses, sometimes in the form of weekend courses once a month or once every two months. Other variations also occur.

Uppsala University in Sweden trains teachers for nursing, care of old people and allied subjects using printed material, correspondence, telephone contacts and short residential courses. This

has proved a successful training attractive to students (Hellkvist 1981 and 1982, Kjellman 1985).

A number of comprehensive, rather sophisticated staff-development programmes occur in various parts of the world. One such is the Swedish so-called Delta project mentioned on p. 102 (Hermods and the Swedish Broadcasting Corporation). This was a training programme for teachers for mathematics in the so-called new maths. It ran from 1969 to 1971 and was used by about 50,000 teachers. It consisted of a correspondence course with assignments for submission (evaluated mechanically), radio and television (alternatively audio- and video-recorded programmes), and group work. The groups consisted of the teachers involved in the training in individual schools and their meetings were usually held in the staff rooms. The result of this training was deemed to be satisfactory by both the National Board of Education and the students. There was a drop-out rate of slightly under 30 per cent and it was a very economical training programme.

A British (University of Surrey) small-scale programme for staff development, aimed at university lecturers in Southern Asia, illuminates a further special application of distance education. The purpose is

> to provide training opportunities for academic staff who wish to acquire a more professional orientation towards their function as teachers. The course is provided entirely at a distance and leads to a Diploma and MSc with the possibility of continuation to MPhil/PhD.
>
> (Elton *et al.* 1986: 29)

The course consists of both compulsory and optional modules, it includes a fairly comprehensive project on a theme chosen by the individual course participants, and there is a strong element of interaction in the form of correspondence between tutors and students. There is consistent individualization, as the aim is to make 'the course particular for each member' (op. cit. p. 31). This is brought about by assignments which induce students 'to relate the general to their particular experience' (op. cit. p. 30). In this way each student strongly influences the content of the study; cf. pp. 15 and 168. In spite of this individualization, the cost 'is less than one-third of the cost for an equivalent full-time course' (op. cit. p. 35). It is particularly interesting to see that

the ratio of fixed and proportional costs is about 1:3, i.e. the opposite of the balance found at the large distance-teaching universities, for whose costs economies of scale are decisive (see p. 203).

On German experiences see Kammerer-Jöbges (1992) and Schwalbe and Zander 1984.

COMBINATIONS OF DISTANCE AND FACE-TO-FACE TUTORING

There are numerous examples of other arrangements including both distance and face-to-face elements other than those mentioned. Some occur as guided study arranged by schools, colleges, or other bodies on the basis of courses provided by distance-teaching organizations. The West German Funkkollegs, combining radio programmes, correspondence texts, and group work, represent one application of this kind. Basically the same approach is applied in a number of British so-called flexistudy programmes.

The 'Open Tech Programme' in the UK, adopted by the Manpower Services Commission (now called The Training Agency) for personnel training, can be mentioned in this context. In the last issue (February 1987) of a newsletter called *Open Tech News* were published the results of two surveys of the experiences resulting from the use of distance-study courses. From the first, a 'readership survey', here are three illuminating quotations:

> The main reason given for choosing open learning was work commitments, or the difficulty of releasing staff for college courses with set timetables. Several users said that there was no suitable college course available, and that open learning offered more relevant training.
>
> There was a fairly even split between people studying at home, at work or in a college or training centre.
>
> There was no 'favourite' time for study – users studied during the daytime, evenings and weekends (showing open learning to be flexible!).
>
> (*Open Tech News* 13: 3)

The second survey, undertaken by an evaluation branch of the Manpower Services Commission, showed among other things that

> only six per cent of the respondents who trained to improve their promotion prospects felt that they were not satisfied. Reasons for using open learning included updating/acquiring skills, improved job performance, to gain a better job, or being encouraged by an employer to train.
>
> (op. cit. p. 6)

In some of the combined programmes the distance-learning element dominates, in others face-to-face tutorials or group work dominate. The well-known Scandinavian study circles to some extent use combinations of distance and group learning. The groups concerned may, or may not, engage a subject specialist as a tutor to help them. Great numbers of other mixed-method applications occur. Among new developments towards the end of the 1980s should be mentioned the British Open College.

The term 'fleximode' refers to flexible arrangements not only for individual (often self-paced) learning based on pre-produced course materials but also for teacher-contact time and the use of resources (Ashhurst 1985). Administrative and financial concerns related to fleximode and its use of computers have been studied by Bowles (1987).

DISTANCE EDUCATION IN DEVELOPING COUNTRIES

In principle, distance education as described and discussed in the preceding chapters may be applied not only in the developed part of the world but also in developing and underdeveloped regions. However, the most common needs, the distribution problems, and the possibilities for using technology are different. See Young *et al* (1980); Ansere (1978, 1982).

In most developing countries, literacy programmes are needed for large numbers of people who, as children, had little or no formal schooling. Some forms of distance education can be applied in these programmes, for example instruction on audio cassettes (if available) on how to work with simple printed materials. However, literacy programmes primarily benefit from distance education in that adult educators are trained at a distance.

The further training of men and women who are active as teachers of young people and who themselves have little formal educational background is another field of activity that is typical

of distance education in developing countries, where the need for teachers is usually much greater than the availability.

Health education and family planning are other needs for which distance education is mainly applied to the training of supporting staff rather than those with poor health or too frequent pregnancies. It is not unknown for paramedics successfully to undertake urgent, quite advanced surgical measures, to give injections, and to prescribe medicine, besides their advisory tasks concerned with child care, breast feeding, nutrition, and looking after the infirm, as well as teaching contraceptive methods. Their training is successfully updated by distance education. Basic training in business administration and technology, for example for the needs of producer and/or consumer co-operative societies, is yet another application of distance education in developing countries. Much experience of activities of the kinds so far mentioned has been gained in East Africa (Holmberg 1985b), other parts of Africa, Asia, and Latin America.

Rural development and various kinds of occupational training are often served by distance-education methods. Higher education is a concern of distance education in some developing countries, such as India (Singh 1979; Khoul and Jenkins 1990); likewise secondary education.

Reference to sophisticated 'schools of the air' and television series combined with classes are quite common in discussions of adult education in developing countries. They do occur, and have been known to make essential contributions to education (Young *et al.* 1980: 48ff.), but represent only a modest part of the educational situation in Africa and other developing regions. Distance education in these areas can make little use of sophisticated media. Lack of resources strictly limits the number of methods and media available to distance education. Conventional correspondence study, relying entirely on the written word, has proved its mettle, however, and serves those for whom reading and writing constitute no problems excellently. A problem that occurs is scarcity of light for reading after daylight hours.

Inexpensive and frequently applicable media that can support correspondence study are broadcasts and audio recordings. However, radio receivers and cassette players are often expensive in developing countries, in relation to not only average wages or salaries but also North American and European prices. Lack of batteries, which may for long periods be irreplaceable, sometimes

prevents the use of these media for oral presentations. Nevertheless, radio broadcasting is a potentially effective and inexpensive medium that lends itself to supporting pure correspondence study, not only in developing countries (Halliwell 1987).

Postal services are unreliable and irregular in some areas of Africa and Latin America, which is a major drawback in correspondence study. Various distribution methods are applied to overcome this difficulty; these very often rely on students walking long distances to centres of distribution.

In spite of all this, distance education functions well in developing countries among both students who are strongly motivated and dedicated and those of more average educational inclinations who are given sufficient support. Group work plays a considerable part in the support services that are offered, particularly in Africa, under the influence of those who not only wish to make individual learning effective but also have an ideological concern with 'Nyere's vision of education as a prerequisite for group action for social development' (Young *et al.* 1980: 61–2) in preference to education for personal advancement. However, it would not be correct to describe African distance education as generally less careerist than its counterparts in Europe, America, Asia, or Australia.

While distance education in developing countries functions under much more difficult circumstances than in the industrialized world and has fewer choices as to methods and media available, it is basically identical with the latter. Printed course materials and student–tutor interaction in writing are the foundations upon which most distance education in the world relies. They have proved to work well.