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OPEN AND DISTANCE LEARNING IN THE UNITED KINGDOM

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CONTENTS

CHAPTER EIGHT

Introduction

This paper is divided into two main sections. The first section deals with patterns of development. Discussion includes a brief analysis of the main educational needs and priorities in the United Kingdom, the development of distance and open education and the way it relates to educational needs and priorities, and a brief review of gaps and failures in the open and distance education response to educational needs.

The second section deals with co-operation in distance and open education both inside the United Kingdom and with other countries.*

PATTERNS OF DEVELOPMENT

Educational needs, priorities and problems in the United Kingdom

The United Kingdom in recent years has been very concerned about ways in which vocational education and training can be made more widely available at times and in places where it will have most effect. Open Learning, including distance learning, and modular systems have been widely promoted as means to overcome barriers. There is considerable activity though most education or training offerings through open learning are small scale relative to their more conventional counterparts. The majority of institutions remain traditional and conservative, and primarily based on a front-end model which centres on the needs of school leavers.

As in the rest of Europe, the United Kingdom industrial base is undergoing radical change. There is marked decrease in numbers of people employed in traditional primary and manufacturing industries. There has been an increase in the numbers of people employed in the service sector and information technology-related industries. There has been a demise of the apprenticeship system over the past 10-15 years without any major replacement. This failure to invest in human capital over a long period has been one of the primary causes of Britain's inability to compete and has exacerbated the current skill gap. Despite the expansion of the tertiary service sector in general, and Information Technology-related areas in particular, difficulties arise in determining exactly where the needs lie. The recent government-sponsored Open Tech Programme (OTP) used an 'employer led'

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* This paper takes a broad view of distance and open education in the United Kingdom; it does not include a detailed description of the British Open University as it is now so well known and full accounts are available elsewhere.

manpower forecasting approach simply because the best data available at the time, ie the Warwick forecasts, were deemed too general and too broad. However, manpower forecasting has been heavily criticised and the employer-led approach in particular deemed least accurate of all for determining total system needs.

Despite the shift from manufacture to newer industries, it is not sufficient to provide jobs for all of the people available for work. There has been a consequent and substantial increase in the number of people unemployed. This is particularly marked among young people.

Demographic factors too have their effect. The birth rate has dropped substantially over the last twenty years and despite recent slight increases, the overall trend is towards a smaller population with a substantial proportion of senior citizens.

In technological issues, in changes in market patterns, in growth of developing countries active in traditional UK markets, and in many other factors, the pace of change has been increasing very rapidly.

The combined effect of these factors is complex, but it is clear that the UK needs to provide much more effective systems to help people cope with change in many aspects of their life, and that education and training have a considerable part to play in giving people the help they need. There has in fact been some growth in the demand for education, particularly part-time adult education. For example, there are nearly 40,000 part-time adult students at Manchester University alone, compared with only 15,000 in full-time education. Other universities are also active in developing continuing education. However, it has been argued that the programmes set up to further continuing education tend to favour already socially privileged groups. The needs (in as much as they are understood at all) of less privileged groups are not met in a systematic way. The OTP was particularly cognisant of this problem, making special provision for what it calls 'special groups'. However, few of the projects made any real progress on this Steering Group directive.

Despite these major and fundamental problems facing the United Kingdom there are many barriers to the acceptance of education and training. The primary barrier to the acceptance of an important role for education and training in supporting change is attitudinal. In the United Kingdom both education and training have a "bad press" and are not recognised by a substantial proportion of the population as having relevance.

A second major barrier is to do with organisational inertia among those groups currently charged with providing education and training opportunities. There is always a tendency to want to do what has been done in the past and avoid changes which are uncomfortable. In many cases these attitudes are bolstered by administrative arrangements, both regional and national, which seem difficult to change. Among the most important of these administrative factors is the arrangement for financial control based on discrete financial years, unrelated to any development programme, and without easily accessible systems to

transfer money from one financial year to the next. As a consequence of this it has been extrememly difficult for organisations in the public sector to invest in developments and recoup their expenditure over subsequent years.

There are some psychological barriers also among providers which are difficult to change. There has always been a strong divide between education and training, and a great deal of suspicion between the two sectors. Recent work by both Manpower Services Commission and the Department of Education and Science on joint projects has gone some way to overcoming the suspicion, but it is deeply rooted. There is also a similar deeply rooted suspicion cutting across private sector and public sector activities.

There are many other more detailed constraints to which have been identified in various papers from the Council for Educational Technology (NB Working Papers 14 and 19), and more recently from the Manpower Services Commission (NB 'Open Tech Task Group Report' and papers on the adult training initiatives).

The booklet published by the Manpower Services Commission and the National Education and Development Organisation entitled "Competence and Competition" points out, by implication some of the lack of focus in the United Kingdom on aims. This lack of focus has made it possible for outdated assumptions to remain unquestioned. For example, there is still a major difference between the training of management who are trained to be independent and self-reliant, and the training of other levels where the training is task-related and does not encourage individual enterprise.

In summary then, the United Kingdom is facing major industrial and structural changes in its population. Education and training are widely perceived among policy makers as having a significant part to play in helping the United Kingdom respond to the need for change. Nonetheless there are many attitudinal barriers, both among users and providers of education and training, throughout the United Kingdom society standing in the way an acceptance of education and training as major change engines.

Development of Distance and Open Education

The development of distance and open education in the United Kingdom has a long history. During the latter half of the 19th Century there were many drives towards the improvement of access to education which led not only to the establishment of a state system of schools but also to the recognition that adults as well as children needed education and training. It was in this environment that the City and Guilds of London Institute was set up and provided examination systems across a wide range of technical and commercial subjects. In 1849 the University of London established syllabuses and examination procedures for external students and in 1958 set up statutes to allow registration from anywhere in the world. A number of professional institutes also established arrangements for examination.

Given the availability of examinations and examination syllabuses leading to awards, a number of private individuals established correspondence colleges to provide distance teaching for people who wanted to take advantage of it. During the first half of the 20th century correspondence education became a major contributor towards opportunities for second chance education in the United Kingdom. While statistics have been hard to come by and very hard to validate because of the secrecy of many correspondence colleges it has been estimated that as many as 350,000 students per year enrolled in correspondence college courses at the height of their popularity.

While the protagonists of correspondence education argued strongly that it provided opportunities for people outside major conurbations, the statistics in fact point to a concentration of students in areas where educational opportunities are already well developed. An exception to this is Scotland where the very wide dispersion of population over a large geographical area has encouraged the development of a wide diversity of correspondence courses operated both by private and public institutions.

Despite this very large market, standards of correspondence education were generally low and a number of private correspondence colleges were guilty of excessive commercialism which led to a partial discrediting of their operations. Attempts were made by the establishment of a Council for the Accreditation of Correspondence Colleges to develop some control over standards but without great effect.

Against this background in 1963 a new institution, the National Extension College, in collaboration with Anglia Television, started an experiment called the Dawn University which soon developed into collaboration between the BBC and the NEC in linked correspondence and broadcast courses. These initiatives attempted to raise the standards of distance education.

The establishment of the Open University in 1969 probably had the most significant effect on standards of all. The Open University from the outset had a commitment to the highest standards of course design and production using a wide range of media including broadcasting. An Institute of Educational Technology was established to help devise standards of presentation. The impact of the Open University and, to a lesser extent, the National Extension College, has been dramatic world-wide on the standards now required of distance education. Other correspondence institutions have followed the market leaders and standards generally have been rising. Open Universities have been established in many countries building on the OU experience. The multiplication of such institutions has led to a great deal of staff exchange as well as development of substantial research activities in distance education and its methods. Most important of all, the high standards set by the OU have made distance education credible among governments, employers, academics and people in search of educational opportunity.

Many other public institutions such as colleges of further education, colleges of higher education, and universities are now also entering the distance education field and producing their own specialist courses in particular areas. Together with the public and private correspondence and distance education institutions they provide a major distribution system for education and training throughout the United Kingdom and, in many cases, throughout the world.

Most recently colleges of further education, higher education and adult education, as well as many large companies, have become involved in open learning. This uses the techniques of distance education coupled with a variety of tutorial support techniques to overcome administrative, educational and social barriers preventing access to education and training.

The movement towards open learning parallels trends in education and training away from control of syllabuses and examinations by central institutions towards a greater involvment of the individual, parent, or employer in control both over course objectives and methods. There have been strong moves at all levels of education and training towards giving learners access to flexible supported self-study methods as opposed to the more conventional teacher/trainer led methods. These methods are seen both as being more responsive to the needs of individuals and the United Kingdom economy as well as being of lower cost.

At the present time the United Kingdom Government is laying great stress upon the importance of vocationally related education and training. The Government is using the Manpower Services Commission in particular as its engine of change. The MSC has been able to provide large sums of money to support the development of open learning (through the Open Tech programme), the development of vocationally related education in schools (through the Technical and Vocational Education Initiative - TVEI), and most recently its review of vocational qualifications which has lead to new procedures for examinations and awards and the establishment of a National Council for Vocational Qualifications (NCVQ). Simultaneously the Department of Education and Science has been encouraging the local authorities and institutions with which it has direct contact to become much more aware of the needs of industry and commerce. It has funded a number of activities under the PICKUP programme to develop the marketing capability of local authority colleges of further and higher education. It has also funded a number of activities to help long-term unemployed use education to develop new and more marketable skills through the REPLAN programme. These programmes are having substantial effects on the attitudes towards training in larger companies, many of which are now increasing their investment in training. A key element in persuading companies to take part in these national programmes has been the emergence of open learning as an important training tool.

Undoubtedly the most significant recent development in open learning has been the funding by the Manpower Services Commission of an Open Tech programme. The programme was formally launched in April 1983 and

is due to finish in March 1987. During that time 43 million pounds will have been spent on more than 140 projects throughout England, Wales and Scotland. There has recently been an Open Tech development in Northern Ireland sponsored by the Northern Ireland Department of Education and the Northern Ireland Training Authority. (A successor programme will begin in April 1987.) The projects are of four main types.

a) Operational projects have been set up to develop learning materials and systems in agriculture and horticulture, communication study skills, computing and office automation, construction and public works, development for trainers, electronic and electrical engineering, management and supervision, manufacturing industries, process technology and production, sciences and mathematics, and service industries. The materials they have produced vary enormously in complexity and in their use of new technologies. While most are based on print media, some make extensive use of computer-based training and interactive video. Most have tried to adopt visually attractive modes of presentation. These have in part derived from the work of the National Extension College and the Open University, but many projects have gone on to develop new and exciting variations of their own.

b) Delivery Systems projects have been set up in sixteen centres to co-ordinate the provision of materials to various types of user. Delivery Systems provide advice on choosing learning material appropriate to a person's existing experience and sophistication as a learner. They provide advice on planning of study time, tutorial guidance and assessment of progress, access to practical training, and group discussions both on a face-to-face basis and in audio-conferences over the telephone. Many of the delivery systems retain banks of learning materials and have developed consultancy arrangements to provide local industry with training needs analysis. A number of private concerns are now also developing an interest in delivery of material to specific training groups.

c) Practical training facilities have been established in twelve centres to provide access to "hands-on" experience using machinery and computers associated with various open learning schemes. Provision of practical training has always been a difficulty in open and distance learning and these centres have been set up to find ways to overcome the problems. Many other organisations are now learning from the experience of these practical training facilities and attempts will be made to spread the experience as widely as possible.

d) Support projects have been established to help existing Open Tech projects make best use of the skills and experience available on open learning, and provide information and guidance on sources for materials and development services. Many of these support projects were established specifically to look after Open Tech projects but, as the Open Tech programme comes to a close (it

ends on 31 March 1987), these projects are developing services which can be made more widely available to other sectors of the education and training community.

More recently the Manpower Services Commission has announced its intention to fund a College of the Air. It is the intention that the new College of the Air will provide access to courses below degree level designed to improve vocational competence. These will be available through a combination of broadcasting on radio and television with local back-up provided by colleges and other learning establishments. The College will not be an institution. It will be a small unit, probably set up as a company limited by guarantee. It will have a co-ordinating role and bring together those involved with open learning, including Open Tech, broadcasters, examining and validating bodies, and colleges. Funds would come both from the Manpower Services Commission and from private sources. Its functions will be to:

a) assess what it might do to meet vocational education and training needs and tailor its range of courses accordingly;

b) arrange for the production and promotion of training material and associated broadcast programmes;

c) ensure the availability of information and local students' support;

d) exercise quality control over the learning materials and support services;

e) ensure that distribution, information and support services are in place.

A third major initiative concerns the development of Training Access Points. Training Access Points (TAP), have been set up to improve the accessibility of information about vocational education and training opportunities and to help individuals in companies make the best use of that information to meet their training needs. The initiative complements the Open Tech programme and the College of the Air development. The main objectives of the TAP programme will be to:

a) bring together sources of information about vocational education and training provision and organise them into a coherent database;

b) make that information readily available through computerised training access points (TAP) based in a variety of different locations including job centres, public libraries, high street shops and public and private education and training institutions;

c) support that information with a network of advisory agents set up to offer information and advice and to help individuals and companies gain access to appropriate training or further guidance.

The first pilot projects are taking place in 1986/87 and further developments will follow.

It is worth pointing out that a significant proportion of these developments make some use of innovations in technology and computer technology in particular. Computer technology has been seen as a significant tool to add to the armoury of the educator and trainer. National information databases are being set up to deal with many different educational and training needs. The TAP initiative is attempting to link many of these databases together to improve access to the very wide range of information now available. Computers are increasingly used as devices to present instruction which may be extremely sophisticated and responsive to individual need. The development of expert systems technology will enable computers and associated peripherals to be even more responsive to needs of individual learners. The open learning movement is preparing the ground for the acceptance by teachers and trainers of different roles in relation to learners. Teachers and trainers will need to be more active in counselling and provision of study guidance and take a much less significant part in the process of instruction.

All of these developments have great relevance for the main needs, priorities and problems facing the United Kingdom as set out in the initial paragraphs of this paper. In particular the open learning and new technology applications developed in the last three to four years can be provided almost anywhere and make education and training available to anyone who needs it at times which are convenient and by means which suit individual circumstances. The use of new technology will raise the awareness of those using them of the importance of technology in dealing with rapid change. The existence of materials and the public awareness generated by the Manpower Services Commission has made it much more difficult for educational and training institutions to resist pressures for change in their own forms of provision.

From 1963 with the formation of NEC, the UK has, without question, played a leading part in the development of open learning practice. The OU and Open Tech have spread that influence through many international contacts and developments.

Gaps and failures in the distance education response to educational needs

Despite the major success of open and distance learning in recent years in the United Kingdom there are many who are concerned about the concentration on vocational education and the forms of funding adopted for it.

Many of the MSC sponsored initiatives lead ultimately to provision which offers little real control to the user. The substantial funding available in the initial stages of development of projects has encouraged producers to develop high quality but costly products This has inevitably meant that a number of key groups are disadvantaged in relation to the availability of training provided by these means. In

particular those who are unemployed and those on low incomes will find it difficult to afford these open and distance learning routes to education and training.

The Government's thrust in recent years has been on vocational education and training and little has been done on the more informal adult education and community education provision. Nonetheless there are many groups who would benefit from access to appropriate education but the energies of course providers are being diverted from this important area of work to the more easily funded work on vocationally related activities.

Resources from the government have been substantial. The Open Tech alone has spent more than £43 million in its four year programme. However, it is not clear that the type of control exercised by MSC has led to the most beneficial results for UK. While data is hard to come by because of the relative 'youth' of most Open Tech projects some issues are clear.

a) While the Open Tech Programme had as an implicit aim the opening up of the system as a whole, in practice the need to produce results quickly led to an emphasis on product rather than process.

b) The pump-priming strategy which put money into projects with a view to their becoming self-sustaining activities at the end of their funding undermined the first aim. This was particularly so with projects in public sector institutions whose grasp of business and marketing issues was rudimentary and whose organisational structures were not designed to facilitate the activities of small businesses as parts of their activities.

Collaboration was one of the key issues for Open Tech and was referred to many times in OT documents. Nonetheless projects were forced to compete against one another. A classic case was the setting up of delivery projects half way through the programme. Many operational projects had, by that stage, begun to market directly to end users or had set up other marketing channels through delivery agents of their own choosing. Prices had been fixed in relation to those channels. Insertion of delivery projects, also wanting a 'financial cut' to ensure their survival, squeezed margins and put both the operational projects and delivery projects at risk.

Computer based training (CBT) is widely regarded as having importance and may be making significant progress in terms of support and materials production. However, there is, as yet, very little evidence to suggest that it is better or even as good as traditional forms of teaching. There is need for more research here.

Information technology (IT) is taught mainly by face-to-face methods in the UK. The Open University course, TD200, Introduction to New Technology, currently under development, and due to be offered for the first time in 1988, is a rare exception.

Measurement of needs and manpower forecasting issues generally are fraught with difficulty. There are areas of need which are felt to be of importance but as yet have not been tackled by open learning. These include the four priority themes of the European Commission, namely:

a) "meeting the needs of enterprises, in particular small and medium sized undertakings, for example by experimenting with new approaches aimed at familiarising and retraining management in the implications and potential uses of new information technologies;

b) preparing young people for working life, in particular those whose qualifications are inadequate, through training measures designed to develop basic understanding of the main applications of micro-technology in data processing and communications and to equip young people seeking work in micro-electronics related occupations with the necessary job skills;

c) helping skilled workers to retain or regain employment by means of measures to retrain production and maintenance staff affected by the automation both of manufacturing processes and of management processes in the service sector;

d) the training and retraining of women by innovative training measures aimed at facilitating their access to developing occupations in the field of technology where they are traditionally under represented".

(Slightly modified: EEC COM(85)167 FINAL, 1985)

There is also a need to look into training people to cope with the problems of change. BTEC is among the bodies interested in this but as yet distance education methods have not been applied.

CO-OPERATION IN DISTANCE/OPEN EDUCATION

The range of co-operative activities in the United Kingdom is extremely large and covers bilateral and multilateral exchanges of information, materials, co-operation on training, personnel exchanges, joint course production, and joint programme development.

In recent years the exchange of information has become much more significant with the development of electronic information databases. A number of national information databases have been established which draw information freely from a very large range of institutions and providers. Among the most significant of these are:

a) ECCTIS which provides information nationally about vocational further education. The system is accessible through the PRESTEL network and currently can be obtained on a CD ROM system;

b) the PICKUP database of detailed information on short courses available through the further education system is collected currently by Guildford Educational Services. The information is available on a Microfiche system but is now also linked with the ECCTIS database;

c) the MARIS project of the Manpower Services Commission Open Tech programme provides details of materials produced for open learning and a wide variety of information on other resources associated with open learning. The MARIS system is now available on the PSS network through PRESTEL.

d) There are many other local and regional databases too numerous to mention in this paper.

Materials exchange takes place to a significant extent among United Kingdom institutions.

The Open University has been a leading influence and many of its materials are sold for use by other institutions. They have been used to support courses in universities as well as other kinds of further and higher education institution. The quality of OU materials has had significant effects on standards now expected in distance education.

At the lower levels some correspondence colleges, notably the National Extension College (NEC) and Wolsey Hall, have made their learning materials available at specially reduced rates to colleges of further education and schools to support teachers in those institutions wishing to offer materials based systems both in resource centres and in locally supported distance education. The best known of these arrangements is FlexiStudy developed by Barnet College of Further Education and NEC which has been adopted, albeit in most cases on a small scale, by some 150 institutions.

The National Extension College and Wolsey Hall have both co-operated with further education colleges in the development of learning materials. The colleges have produced the materials for publication and the correspondence colleges have undertaken to publish and distribute those materials much more widely. Examples include mathematics, science and psychology. The National Extension College (NEC) has been particularly active in this form of collaboration and has supported a number of Open Tech projects.

The Open Learning Federation (OLF) is an organisation which interlinks colleges of further education engaged in open learning activities. Among its various activities is the exchange of materials produced in different colleges for use throughout the Federation.

The Open University is well known for its involvement of broadcasting in its activities. Less well known, but of great interest, is the extensive collaboration of NEC with various broadcasting activities. It is important to note that, unlike the OU, NEC has no direct organisational link with broadcasters but has, nonetheless, managed to

attach its activities in productive ways to programmes. Notable among these have been programmes for unemployed young people ('Just the Job') continuing education (Botanic Man, the Disraeli project and many others) and new technology (support for BBC micro-technology programmes).

Collaboration on curriculum development in distance education is less frequent though these have important developments in business education.

Henley College, after an initial attempt to work with the Open University, developed an MBA programme in conjunction with Brunel University. This programme is notable for the high quality of its material and its positive use of video material.

Wolsey Hall has worked with Warwick University in the production of a distance learning MBA programme. This is particularly interesting as an example of a commercial institution collaborating with a public sector university.

Eleven polytechnics, including Birmingham Polytechnic in a co-ordinating role, have collaborated in the development of BA in business administration validated by CNAA. The course materials are partly finished and it is hoped that the course will begin to recruit in 1988.

In all cases the overseas link is of importance. Both Henley and Wolsey Hall and their university collaborators have established formal tutorial arrangements with overseas institutions. In Hong Kong, for example, Henley has links with City Polytechnic and Wolsey Hall with Hong Kong Polytechnic. Both Henley/Brunel and Wolsey Hall/ Warwick are able to customise their materials for specific users.

There are other important MBA distance education programmes at the OU and at Strathclyde University.

There is considerable co-operation in training in many institutions. The training, for the purposes of this paper, can be broken down into two main headings, those involving training of trainers and those involving training of end users. Some examples will show the range.

Dundee College of Education has for many years provided materials for its own students engaged in teacher training courses. Since 1980 the college has offered a distance teaching course for training individuals interested in distance learning. These materials have been made available to other institutions and Dundee has entered several bilateral agreements where it works in conjunction with another institution, Dundee providing the material, and the other institution providing tutorial support.

One of the outcomes of the Open Tech programme has been willingness of companies to exchange training materials. So it is, for example, that B & Q, a large retail do-it-yourself chain of shops, is not only developing its own training materials for training trainees and making

those available to other institutions but using materials produced elsewhere for the training of its own trainees. This practice is now widely developed.

Collaborative ventures are wide ranging through bodies such as British Council and TETOC. Some examples are given below.

The London University external system, which currently has some 24,500 students studying in six main subject areas, has probably had the longest history of cooperation and collaboration with other educational institutions. It has shown considerable flexibility in adapting its procedures to accommodate to the needs of other bodies. From 1945 to 1971 the external system developed special relationships with university colleges in Africa and the West Indies which help them develop as academic institutions. It is currently re-examining its work fundamentally and exploring opportunities for new types of relationship with established universities world-wide.

Plymouth Polytechnic has links with the World Maritime Colleges. This is an example of an already established network.

The British Council is currently furthering the use of open learning methods and materials by encouraging technician training institutions in developing countries to adopt OTP products and processes. The recent use of the 'Scitech' Laboratory Technicians Course on its Direct Teaching Science Project in Egypt is an example. The materials are being translated into Arabic; this should facilitate their take up similar settings, whilst generating first hand experience of the nature of the problems involved.

Personnel exchanges. The Open University has practised personnel exchanges extensively with other institutions both inside the United Kingdom and overseas. These exchanges have been influential in the establishment of open learning initiatives in many countries as well as feeding back to the United Kingdom a much broader perspective of need.

Collaboration is not always as easy as its protagonists sometimes suggest. Key problems which have emerged include financial issues, cultural issues and organisational issues.

In some instances exchange control measures may prove restrictive preventing the movement of materials, for example Nigeria.

The problems of cultural adaption are frequently underestimated, this is a major barrier to the effective dissemination and utilisation of open learning materials. Project managers in the Open Tech Programme display a considerable level of naivety in assuming that the level of adaption required for UK materials to be effectively used, is in the order of ten per cent.

A recent survey conducted by the British Council into the likely up take of OTP materials overseas concluded that sales were not expected to be significant on account of the comparative inexperience of those

involved and the nature and diversity of the relevant problems.

The infrastructure of many developing countries is insufficiently developed to permit the widespread adoption of certain forms of technology currently taken for granted in the Developed regions, for example telephone tuition.

Often correspondence texts are written using the 'speech on paper' style which is particularly difficult to translate. Even in countries where English is the lingua franca adaptatations are necessary if texts are to be readily understood.