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ABSTRACT

The British Open University is described in the first section of this paper as a multi-media system for teaching at a distance. Details are provided on the texts and other materials mailed to the students, the radio and television broadcasts provided by the British Broadcasting Company, and on the auxiliary sources of assistance offered to the students. The following section of the report presents data on the Open University's cost-effectiveness. The concluding portion discusses the possibility of transplanting both the concept and the actuality of the Open University as an institution to the Third World. Five conditions necessary for the seccessful functioning of an Open University are specified and five kinds of assistance which the British Open University provides to Third World educators are reviewed. (PB)

The Open University in the Third World

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What is the Open University?

This question scarcely needs answering nowadays. Since it was established by Royal Charter in 1969, the Open University has gained world-wide recognition and thousands of educators have visited its headquarters at Milton Keynes, 40 miles north of London.

The question is really very difficult to answer briefly. Like the blind man feeling the elephant, we can provide many descriptions. This article describes the Open University as a multi-media system for teaching at a distance. Those who already know how the Open University uses the media may prefer to skip to the second part, which discusses the University's cost-effectiveness.

The third part will discuss the possibilities of transplanting both the concept and the actuality of the University as an institution to the Third World.

A Multi-media System for Teaching at a Distance

The Open University teaches at a distance. For most of its year-long courses, true, there is a one-week residential summer school, and for all its students there are some opportunities for meeting tutors and counsellors face-to-face, usually in one of its 280 study centres up and down Great Britain. But the University

intends to teach at a distance. It does so through a multi-media system employing printed texts sent by post, television and radio broadcasts produced and transmitted by the BBC, and a host of ancillary aids, which vary depending on the course being taught.

This multi-media approach places the Open University in a different category from the correspondence institutions which are also teaching at a distance in many countries. It enables the University to employ a very wide range of teaching techniques and to offer the student a variety of ways of learning. It increases considerably the communication between the teaching institution and the student, and also makes it easier for him to identify with the University and feel an active member of it.

A student in the Open University receives a large package by post about once a month. This contains the finely printed and illustrated course units, one for each week of study, plus supplementary materials such as notes for the television and radio programmes for his course (about one programme for each unit), and tests to be sent either to the University for the computer to score or to the student's tutor.

If the student is studying mathematics, his package may contain instructions for him to use one of the University's 170 computer terminals to help him to learn computing. If he is studying science, or technology, he will probably have received already a fairly large kit containing the necessary apparatus for a series of experiments. In his monthly package will be instructions for carrying out these experiments. If he is studying the humanities his packages may contain gramophone records, colour filmstrips or art reproductions.

Other courses use tape recordings to demonstrate speech patterns, sets of specimens for examination, and so on.

The student can proceed at his own pace to some extent, but the packages arrive regularly to urge him on, and the broadcasts are only repeated once. If he misses both broadcasts of a programme, he can get a replay for most of them at his study centre, which is also equipped with T.V. and radio.

When the student feels he needs immediate help, he can reach, by letter or telephone, either his tutor or his counsellor. Or he may prefer to visit one of his fellow-students. With over 35,000 students, the Open University has many self-help groups, covering most parts of England, Scotland, Wales and Northern Ireland.

The courses are produced centrally at Milton Keynes and at the BBC's television and radio studios by teams made up of academic subject-matter specialists, educational technologists and BBC production staff. In the undergraduate programme, most courses are worth either half a credit or a whole credit. Six credits are required for a BA degree and eight for a BA (Hons.) degree. Students may choose to study virtually any combination of courses. Some obtain credit exemptions on the basis of previous studies, and get their Open University degree in two or three years. Others have to accumulate the full number of credits.

The system is successful by most criteria. Over 900 students graduated at the end of 1972, after two years in the Open University. Probably 3000 will graduate in 1973. After than there should be 5000 to 7000 graduates a year. Standards are safeguarded elaborately, not only by the high quality of the course material (much of which

has already gained acceptance in other British universities), but also by the involvement of distinguished staff from other universities in vetting courses and on examination boards. The drop-out rates, an important set of indicators of success, are 25-30%, very much lower than in many other distance-teaching institutions.

The Open University undoubtedly owes some of its success to the great effort which has been put into the production of courses. The costs for producing them, particularly for their written, television and kit components, seem high to many overseas educators. Whether they come from the United States or a Third World country, these educators frequently ask, 'Is the University cost-effective? How do its costs per student compare with those of other universities?'

The Open University's Cost-effectiveness

Data concerning the University's cost-effectiveness are scarce. There is only one published study, that by Wagner (1972), a member of the University's economics department. Other data can be found in the Vice-Chancellor's reports (Perry, 1972 and 1973), but are very difficult to interpret.

Wagner tried to evaluate the costs of the Open University compared with those of conventional British universities. He found that there were many conceptual and statistical problems, and arrived at very cautious conclusions. Since he had only 1969-1971 financial figures, his work is now out-of-date to some extent, too. He did conclude, however, that whichever formula was used the Open University was appreciably cheaper in recurrent costs and considerably cheaper in capital costs. For example, he gave the following figures:

	Open University	Conventional
A. Average recurrent cost per equivalent undergraduate	£251	£940
B. Capital cost per student place	£165	£3000
C. Average recurrent cost per graduate	£4000 at 85% dropout	£4000+
D. Resource cost per equivalent undergraduate	£268	£1577

A more recent study, in greater depth, by an economist at an American university comes to similar conclusions. This study has not yet been published.

New data are coming to hand now, and a new study is overdue.

On the cost side, the University has been collaborating with a team from the London School of Economics, and a preliminary report is expected soon. The costs of the University are rising, partly due to inflation and partly due to changes within the institution. The student enrolment is rising too, as is the University's income which is derived not only from student fees but also from substantial sales of course materials, particularly in North America. (In the first six months of 1973, the University sold £445,000 of materials.) Thus the figures in the equations need changing.

The new calculations seem likely to yield conclusions still heavily in favour of the Open University, since costs are rising for other universities too, without any increase in income. There will be differences, depending on whether we look at recurrent or capital costs, at costs per student, per course, or per graduate, or at costs set against life-time benefits, but the University is likely to continue to be cost-effective within all these frames of reference.

Whether an Open University system can be cost-effective in a Third World country is quite another question, and one that will be considered in the next section of this paper.

The Open University's Potential in the Third World

Can the concept and actuality of the Open University be transplanted to Third World countries successfully? That is too complex a question to answer all at once: first, can the concept be transplanted? If we consider the Open University to be an example of the concept of a multi-media system for teaching at a distance, not limited to teaching university courses, certainly much of that concept can be transplanted. It does require certain conditions to thrive.

The first condition is that the need for an 'open learning system' should be publicly and politically recognised. Schramm (1973) offers some interesting views on the establishment of such systems in four Third World countries. In Niger, he says, instructional T.V. was started by the Niger government chiefly to expand primary enrolment rapidly. In American Samoa, the U.S. government introduced instructional T.V. to upgrade education as swiftly as possible. In the Ivory Coast, the drive was towards universal primary education, and the instructional T.V. project there was to assist that drive. In El Salvador, Grades 7-9 were the weakest link, and television was introduced to deal with that need. In each of these four cases, there were clearly recognised needs.

In Iran, and in Israel (Schramm, Hawkridge and Howe, 1972), political motivation has been strong, and those two countries seem likely to set up their 'Free' and 'Everyman's' universities, respectively. In India, the political motivation has been weaker, and after an initial conference in 1970, the plans have been shelved.

Mexico, on the other hand, will probably establish a third multi-media distance teaching system soon, based on the Monterrey Institute of Technology, to supplement its Radioprimaria and Telesecundaria. Pakistan's People's University is still in the proposal stage, and may lack the political backing to become a reality.

The second condition is that there exists a large enough demand to justify the heavy initial expense in setting up a system of this kind. Admittedly, demand for specific courses, or even for broad academic areas, is extremely difficult to assess in advance. Potential students are not ready to say whether they will pay an uncertain fee for a vague programme of study in an institution they have never heard of before, and which probably does not exist. Yet a 'critical mass' of students must be there for the new institution to survive.

As yet, there is insufficient evidence to allow judgments to be made about what is a 'critical mass' for a multi-media distance teaching system. Much depends on the range and levels of courses it expects to offer, and whether it intends to produce all or some of the courses itself or obtain them from elsewhere (perhaps from the Open University).

Nor is there enough reliable data for us to be able to calculate what population base is necessary to guarantee a high enough student demand to make the system cost-effective. For example, one country with 6 million people may set up a system to teach at the secondary level, at which it may have as many as 1 million young people. Out of 1 million, 2% might provide a fair demand for the system. A country with only 1 million may have 100,000 who are judged by

the government of that country to require further education, but if in any single year only 10,000 of those are willing to study in the new system, it may well fail to be cost-effective. By comparison, the Open University, teaching entirely at the post-secondary level, has attracted demand from about 100,000 individuals to date, among a population of 55 million. It develops its own courses entirely, and is cost-effective, as we have seen.

There is some kind of balance to be sought in the kinds and levels of courses offered by the system. The most popular courses may be ones for teachers and accountants, perhaps. Yet if the system wishes to offer diplomas or degrees to people in a wide range of occupations, the range of courses will have to be greater than those demanded by teachers and accountants. The more courses are produced the more likely it is that the average enrolment in each course each year will drop, thus cutting down the cost-effectiveness of the system.

The third condition is that a combination of media should be employed. It is hard to be dogmatic about this point, but when we compare 'successful' projects with 'unsuccessful' ones, the former have all used a combination of media and the latter in most cases have depended chiefly or exclusively on one. Where a broadcast medium is used, then teachers' guides and pupil workbooks are supplied if it is a school-level project. At the university level, text has dominated, being supplemented by broadcasts.

Fourthly, the system will almost certainly need an existing educational system as its base. This is not a tough requirement necessarily, since every country now has one. The type of multi-media distance teaching system that is chosen for a given country

should depend, however, on what kind of educational system is there already. The Open University depends heavily on the rest of higher education in Britain for its tutors and counsellors, its summer schools, and even for some of its course production. Its study centres and examination halls, and its weekend schools, are all in existing buildings. No country has yet been successful in mounting and continuing a distance-teaching project that is not in some way quite heavily dependent upon what is already there in the educational system. 'Independent' projects have been proposed (for example, in Indonesia), but they have not prospered, for many reasons.

This analysis of the conditions required for the Open University concept to transplant well to Third World countries is by no means comprehensive; clearly other factors, such as the adequacy of a country's postal services, broadcasting network, or electricity system have to be taken into account. Local political conditions may foster or hinder regional collaboration: that collaboration may be essential for the project to achieve 'critical mass'. Special factors of geographical or cultural isolation may make the project more or less desirable, more or less feasible. Opposition from the educational establishment, particularly the universities of Third World countries, may make the project impossible to get started. Many of these factors are subsumed under the ones already mentioned, however; politicians are sensitive to these pressures, and that is why the first condition for adoption of the concept is that the need should be publicly and politically recognised.

Even if all the political and physical conditions can be satisfied, will the Open University concept prove cost-effective in a Third World country? The evidence presented by Schramm (1973) for school-level open learning systems is that significant savings in instructional costs can be made. That is the answer that Finance

Ministers seek, and which World Bank officials quote. What is more significant is that in many of the projects, schooling has been provided to large numbers of students who would otherwise have been deprived. In many Third World countries, education budgets (large as they are in terms of the national budget) can do little more than keep up with the population increase, continuing to provide low-quality education to only some of the children. Such countries can break through to more universal, higher-quality education by no other way than through using the Open University concept.

What about the actuality of the Open University: can that be transferred? Can a Third World country with enough money buy parts or a complete Open University, like a Concorde supersonic aircraft? The short answer is yes and no. There are several ways in which the Open University can be used by the Third World countries, but it would not be possible to buy a complete one, ready to work.

First, the Open University receives many visitors. It costs nothing to visit the University for a day. Visitors who know precisely what they want to ask about and see get most help, obviously. The office of Information Services handles such visits.

Second, the University has (at present) two places every 4-5 months for distinguished academics who wish to study the University. These places are in the Institute of Educational Technology, and are competed for under rather strict conditions, two of which are that the academics will bring useful skills and that they will need no salary. In 1973, two Canadians and an Iranian have been occupying these places.

Third, the University conducts occasional courses. To date, these have been arranged for small groups from West Germany and Iran.

A very large one is planned for late 1973, in collaboration with the British Council. Fees are charged for these services, since they involve considerable amounts of senior O.U. staff time.

Fourth, the University is setting up a consultancy service. Individual members of staff, acting as individuals, have been able to assist some countries to plan projects already, but the University as such has not provided consultants. By early 1974 it will be possible to engage one or more consultants officially through the University.

Fifth, the University sells all its materials. Its first overseas sale was of a set of 40 copies of the complete Science Foundation Course to the Benin Institute of Technology in Nigeria. This included not only the correspondence units and other printed matter but also films (made originally for T.V.), tapes (made for radio) and the science experimental kits. Sales to many Third World countries have continued. In S.E. Asia, the University now has agents (Angus and Robertson, Ltd.), since considerable sales have been made in Hong Kong, Singapore and Malaysia. Also significant is the decision by the University's Latin American agents, Libros McGraw-Hill de Mexico, to translate into Spanish the Mathematics and Science Foundation Courses.

The sale of these materials raises some interesting questions. Are the materials really suitable in content and level for the countries in which they are being sold? The honest reply must be that it is up to the people in those countries to decide. Similarly, there are very real problems of cultural translation. These are more obvious for, say, the Social Sciences courses than in Mathematics (which is a foreign language for most of us!), but a

course in Science contains Western ways of thinking that may be foreign to students in some countries. Again, these issues can only be resolved by the people who wish to buy the materials - or, in a few cases, by their rulers. In some future instance, there may be an attempt to modify the materials to suit local conditions. So far, no Third World country has tried such an adaptation.

These are five ways in which the Open University can be transferred into the Third World in actuality. The University is not permitted to enrol students resident outside the United Kingdom. There are probably several hundred Third World students enroled, but they are living in the U.K. at present.

There is no doubt that the Open University, both in concept and actuality, contains great potential for the Third World. For an institution started only four years ago the University has already realised some of that potential. The next four years should see the establishment of a number of new Third World institutions using the Open University concept, and the steady growth of a practical partnership between them and the Open University at Milton Keynes.

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