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INSTITUTE OF CURRENT WORLD AFFAIRS

IJS-30 THE OPEN UNIVERSITY:
A CRITIQUE

44 Canfield Gardens,
London, N.W.6.
England.
21st October, 1972.

Mr. Richard Nolte,
Executive Director,
Institute of Current World Affairs
535 Fifth Avenue
New York, New York 10017
USA

Dear Mr. Nolte:

Attached is a report on the Open University in Great Britain, the new university for adults.

You may be interested to know something of the history of this report, a history which is typical of all my newsletters about particular institutions. After it was written in draft form it was given to people at the Open University and the BBC for review and comment. My readers at the Open University took strong exception to most of my conclusions and prescriptive comments; whereas the readers at the BBC accepted much that I said about Open University broadcasts, although they did suggest some minor changes.

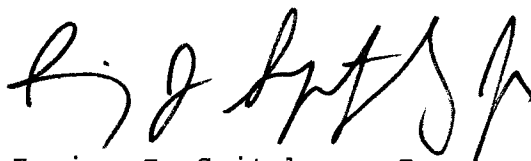
After further research and serious consideration of the comments made by the readers at the Open University and BBC, I did make some corrections of fact and minor changes of position taken in the original draft. However, the report which you find here still contains most of the critical comments which disturbed my readers at the Open University, because I believe these remarks to be fair and to deal with important issues.

The tenor of my remarks in this report and in many of my newsletters does leave me open to the challenge put to me by a Staff Tutor at the Open University in London: "We recognize our problems and are slowly finding some answers. But you are too willing to solve our problems for us."

Yes, I am willing to identify problems and suggest some solutions to them. I do so not because I claim to have some special wisdom in dealing with these problems of a new and complicated institution; but because the policies presently being implemented by the Open University are being taken as models by many countries and institutions around the world. It seems to me to be the responsibility of the institutional critic to make positive suggestions as well as critical statements: something that rarely happens in writing about the Open University.

Most of what has been written about the Open University is either paeon or polemic. I hope this report lies somewhere inbetween.

Sincerely,

A handwritten signature in black ink, appearing to read 'Irving J. Spitzberg, Jr.', written in a cursive, stylized script.

Irving J. Spitzberg, Jr.

P.S. Although this report has been read by staff at the Open University and the BBC, I must emphasize that these readers have reviewed it as individuals and not as official representatives of the Open University and the BBC.

Irving J. Spitzberg, Jr.
Fellow
Institute of Current World Affairs

October, 1972

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Irving J. Spitzberg, Jr.
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THE OPEN UNIVERSITY: A CRITIQUE

Never in the recent history of higher education has an experimental institution provoked more public interest and controversy than Britain's Open University, the correspondence and broadcast university for adults. Because of this interest and controversy, I must assume that the general character of this new institution is well known to an international audience. However, I believe that never has such an institution been subject to such ill-informed public acclaim and opinionated public criticism as the Open University. It is with both of these facts in mind that I offer the following comments on the Open University.

There seem to me to be four worthwhile questions to ask about the Open University: first, how effective is it as a medium for providing large scale adult education? second, does it contribute to equality of higher educational opportunity and also to equality in society? third, is the multi-media learning system of the Open University effective for other levels of education? and finally, is the Open University an appropriate model for other national educational systems?

I shall try to answer these questions by briefly surveying the history and operation of the Open University and then by looking more closely at the multi-media learning system in general and the operation of study centers and tutorial components of the system in particular. I shall also be especially interested in the second question about the role of the Open University in mitigating social inequality.

Since much of what will follow will be quite critical of the Open University, let me state at the outset that even with its faults, the Open University is the most exciting and promising experiment in educational innovation that I have seen since I first became interested in educational institutions when I entered kindergarten a "few" years ago. My criticism will in the main be that it does not yet live up to its promise; but even the partially fulfilled promise of the Open University is an accomplishment of international importance.

First, before offering my critique, I must sketch the outlines of the Open University.

I. AN OVERVIEW OF THE OPEN UNIVERSITY

The idea for what was to become the Open University was born in a speech by Mr. Harold Wilson, MP, then Leader of the Labour Party in opposition, in a speech in Glasgow in 1963. At that time he proposed a "University of the Air" open to working men and women. Although the particular idea of a "University of the Air" was new, it arrived in an environment quite sympathetic to adult education. England has a long and distinguished history of providing a number of different alternatives for adults wishing to continue their education: technical colleges, colleges of art, colleges of education, adult institutes, polytechnics and some university extension services. Also there are private co-operative groups such as the Workers' Educational Associations and ladies institutes which have been very active in adult education. There is even one university devoted to the part-time education of adults, Birkbeck College of the University of London, which was founded as the London Mechanics Institute in 1823. But what was lacking was a university level institution open to large numbers of adults who had not accumulated the traditional credentials for admission to university but who had the potential to do the work. This was the void which the "University of the Air" was to fill.

When the Labour Party came into power in 1964, Prime Minister Wilson appointed Miss Jenny Lee (now Lady Lee) as Minister of State at the Department of Education and Science with special responsibility for the Arts and for the organization of a "University of the Air". Miss Lee appointed an Advisory Committee which she herself chaired and which prepared a recommendation for the establishment of a university institution open to any adult without regard to formal credentials but with reference only to minimum ability and motivation. This open access to the new university was especially important in the British social context, because at the time of this deliberation only about four per cent of the 19-21 age group was enrolled in higher education. Today the enrollment figure is still less than eight per cent. So the opportunity for higher education has been and is, perhaps with the exception of the Open University, extremely limited in Great Britain.

A Planning Committee made up of distinguished educators and broadcasters was then appointed to develop detailed plans for the university. This committee reported in early 1969 and offered the general guidelines for developing a multi-media learning system to provide university education to adults. In July, 1969, the new Open University was granted a Royal Charter and its Council and Senate were convened under the leadership of Vice Chancellor Dr. Walter Perry, a member of the Planning Committee, who had been Vice Rector of Edinburgh University and who was a medical doctor.

Then, in less than eighteen months, a central academic staff and administrative organization, as well as regional and part-time study center staffs, had been recruited and had produced the first programs for 24,191 students, who registered for the first year of the Open University, which commenced in January, 1971.

The offerings which these first students met and which continue to be the first year course today included four introductory and interdisciplinary courses called "foundation courses," which were and are designed to ease capable students into university level work. The first courses included those from four faculties: the Social Sciences Foundation Course, the Science Foundation Course, the Mathematics Foundation Course, and the Humanities Foundation Course. Now there is a Technology Foundation Course as well. The sixth faculty of the Open University, the Education Faculty, does not offer a Foundation Course but requires that its students take one of the other Foundation courses.

Each course is produced by a course team which includes an educational technologist, a BBC producer, a BBC technical director, a publications editor, and academic staff from the faculty which presents the course. The foundation courses draw on staff from very different traditional fields: e.g., the Science Foundation Course is produced by physicists, chemists, geologists, and biologists working together in a cooperative venture. In the Science Foundation Course each unit -- including broadcast and written correspondence material -- is prepared by the team as a whole. Whereas in the Humanities Foundation Course each of the participating disciplines prepares its contribution separately -- that is the historians prepare the history sequence, the literature faculty the poetry, novel, and drama components, the philosophers the logic, etc. Although the style of preparation varies from faculty to faculty, the system for preparing the foundation courses is a well thought out curriculum development process which attempts to adapt the demands of the various disciplines to the expected needs of the students and the idiosyncricies of the various media used for communication. The system operates in regard to the advanced courses as well as the foundation courses, but most of the advanced courses lose the emphasis on interdisciplinary cooperation.

The whole Open University system is directed from the central campus, Walton Hall, at Milton Keynes, a designated new town 50 miles North of London, although the actual broadcast production is done at BBC studios at Alexandra Palace in North London.

In addition to the broadcast and correspondence components of the Open University, there is a network of 250 study centers spread around Great Britain. These study centers are staffed by part-time counsellors and subject tutors, who assist the students and who read the written work which students prepare as part of continuous student assessment exercises.

These study centers and part-time staff are supervised by full time staff tutors and senior counsellors who operate out of thirteen regional offices.

Participation in the work of the study centers is optional for the students. But each student must attend a one week summer school as part of each foundation course; some of the advanced courses do not have summer schools. These summer schools are conducted at various universities during their summer vacations.

The direction of the university from Milton Keynes seems quite strong. There are avenues of communication and control from the country at large, but the constraints of size, organization, short time scale for establishment, and the deadline demands of the various media have combined to make the Open University a very centralized system. However, because of the physical decentralization of students and part-time staff, many decisions about particular student as well as more general policy problems are taken at the regional and study-center levels in spite of what appears to be an official policy of centralized policy making. And with effective agitation at the regional level, the whole Open University system seems to be responsive. As one OU staff member said: "Controls and barriers at the Open University are many: but these walls are all made of butter, and we can cut right through them."

The performance of students is followed through the continuous assessment exercises, tutorial meetings, summer classes, and the examinations at the end of each course. The academic year begins in January and ends 36 weeks later with a final examination. This exam is graded by the central academic staff and the external examiners.

The performance of the whole Open University system is monitored by an institutional innovation which is unique in its scale and scope: the Institute of Educational Technology. This Institute pretests and evaluates various teaching methods, participates in the activities of the course teams, generating hopefully new ideas in the field, and closely monitors and evaluates the results of Open University activities. Surprisingly, in spite of the Institute's potential and innovative character, the OU has had difficulty financing the operations of it and has had to operate it at a reduced level of activity because of lack of internal funds and external support.¹ The reduced level of activity could be especially difficult for the OU because of its strong reliance on the Institute as a feedback mechanism. The OU seems to have taken a corporate management model to the overall design of the University, so survey results are important.

To obtain a degree from the Open University each student must complete a total of six credits, composed of at least two foundation courses, two second level and two third level courses. The Foundation

1. See The Early Development of the Open University, Vice Chancellors Report, January 1969-October 1970, Bletchley, 1972,p.79 and the Times Educational Supplement, March 3, 1972, pl.

courses are each worth a full credit; but many of the advanced courses are offered for $\frac{1}{2}$ credit. In addition to credits received for work done in the Open University, other formal academic qualifications are awarded credit equivalents; but it should be made quite clear that credit is awarded only for other sorts of academic qualification -- such as a certificate from a college of education -- not for what is sometimes called "life experience" in the United States.

The non-British reader must keep in mind the way in which the Open University program differs from the usual university course in Great Britain. In most British Universities, the student enrolls for a three year course in a particular discipline or at most two disciplines. Many students read for "honors" degrees, which entail a very high standard and a great deal of specialization. The Open University, in contrast, only requires a collection of credits, not necessarily taken in a particular field. Many of the second and third level courses have preconditions for entry which will entail a series of courses, but the degree itself is not in a particular subject.

The Open University will offer an "honors" degree as well as the BA; but this honors degree will be awarded upon the completion of two additional course credits at advanced third and fourth level, which will entail work at a higher standard. But the degree itself will not be overly specialized.

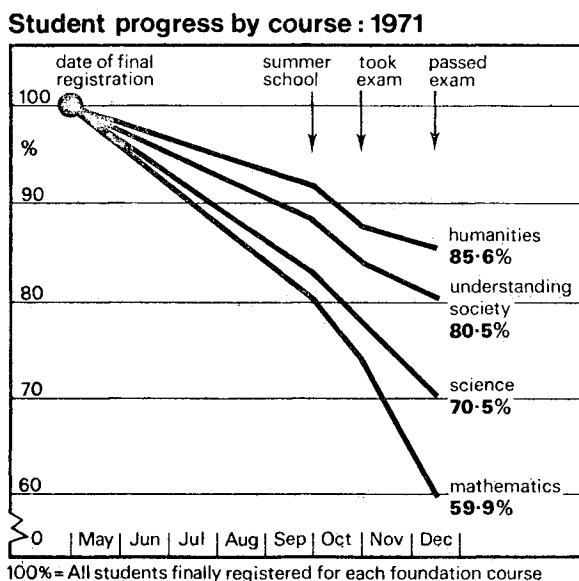
In addition to the undergraduate degrees, the Open University will offer a limited program of graduate study involving resident and external research students at Milton Keynes. Also, starting next year, there will be an extensive offering of post-experience courses, which do not lead to credit toward a degree but which are designed to provide in-service education to various vocational groups.

The first students were relatively successful in navigating the first OU obstacle courses: out of the 24,191 students² who provisionally registered for the Open University in January, 1971, 19,033 paid the final registration fees of about £10; 15,823 finally sat the examinations for 17,614 credits (because of multiple course registration by some students); and 16,346 credits were finally granted. Looking at this raw data in another way, out of 100 provisional student-courses³ in January, 1971, 60 examinations were sat and 56 credits awarded.

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2. The first students were drawn from relatively diverse socio-economic and academic backgrounds; however, the small percentage of "working men and women" does not seem to be what the founders had in mind. I shall return to this point later in this essay (See page Xff)
 3. See "Britain's Open University: Everyman's Classroom," Peter J. Smith, SATURDAY REVIEW, April 19, 1972, New York.

(See Figure 1 - 4th May, 1972, NEW SOCIETY)

Figure 1.



Although the attrition rate was relatively high, it was no higher than that experienced by other adult correspondence institutions in other countries or many open admission universities in the United States. By another student accounting method, students passing as percentage of students formally enrolled, about 75% passed.⁴ I would think that the figure of 56% of provisional student credit registrations gives a more realistic account of the Open University's success with its overall audience. But no matter which figure one takes as the appropriate pass statistic, the success of those who participated in the life of the Open University is quite creditable.

So at mid-year 1972 the Open University is a flourishing institution which has caught the imagination of the world and which has provided the British middle classes with a new ladder to vocational success (I shall develop this point later in the essay.) -- a not unenviable record in less than two years of operation. But its problems are many. I shall only look at three: the quality of the learning system in action, the organization and quality of social infrastructure -- the tutorial system -- and then, in conclusion, the failure of the Open University in regard to the working class and/or the least advantaged members of society, those for whom the institution was founded.

First, we shall examine the learning system, with an emphasis on its broadcast components.

⁴. TES, 17.12.71., p.5.

II. THE MULTI-MEDIA LEARNING SYSTEM:

AN EXERCISE IN CURRICULUM DEVELOPMENT FOR HIGHER EDUCATION

The most striking impression I take away from a year of irregular but extensive viewing of Open University broadcasts and informal perusing of Open University texts is that here for the first time one has the fruits of a systematic attempt to design a "higher" education which looks to both the demands of the subjects and the needs of students. Unlike almost every other institution of higher education, in the Open University there is a systematic process of curriculum development for whole learning streams and individual courses. The results bear witness to the benefits of this systematic approach to the problems of teaching at the university level.

If one takes a particular part of a course, he finds a published text which organizes all of the information necessary for a basic understanding of the concepts and facts to be discussed in that section. This printed text is the heart of the learning segment. In addition, in a typical segment of a course the student can see three or four television programs and as many or more radio programs which discuss various aspects of the issues raised by the text as well as supplement the core information with additional source materials and comments on the problems. The students enrolled in the course also receive additional radio and television notes; this supplementary documentation includes questions, whose answers are marked by the student's tutor or the computer, and a suggested plan for studying the whole assignment through the various media. All of these materials do in fact hang together as a coherent whole.

In the Science Foundation Course, the learning system adds an especially designed home experiment kit, which provides each student with all of the materials and instruments necessary to do many home experiments.

Although the overall design of the individual learning blocks and units indicates a coherent and well thought out approach to the learning problems of adult students, there are problems with specific components of the system. And these problems deserve close attention.

The printed texts, which are the heart of the learning system and which are mailed to each student in the particular course, show great care and concern on the part of the authors and editors of the learning units. However, some of these publications show the problems of committee review and approval in being quite bland and uninspiring. An example of one of the less successful series of printed texts are the units of the Social Sciences Foundation Course. However, I should qualify this criticism by indicating that some of the printed texts are quite good. An example of an imaginative text is that for units 2 and 3 of the

Technology Foundation Course, which, although I am not professionally qualified to comment in detail, is obviously an exciting book for the lay reader and student; it is an analysis of the human component in technological systems.

The individual texts, although beautifully produced and copiously illustrated, will in the long run prove rather inflexible, because they are so expensive to publish. Each text is expected to last four years before revision. If a less expensive printing process and a looseleaf format had been used, the life could have been more limited and more regular updating undertaken. In the next few years these texts will become quite outdated in content; and they will not be responsive to the lessons of experience which the total multi-media system will teach.

In addition to inflexibility, the expense of production has meant a sales price to those not enrolled in the Open University which almost prohibits the purchase of all of the texts for a course. Very few of the correspondence texts, which are retailed through booksellers in England, cost less than One Pound (@\$2.50 on a good day for the pound). And most OU courses require as many as a dozen of these books. Also there are "set texts" -- books not written especially for the OU but required for the course -- in addition. Indeed, I must admit that I have spent several hours at booksellers skimming through most of the correspondence texts I have seen and have only bought a couple because of their cost.

The use of television as part of the multi-media learning system is considered by international observers to be the most important innovation in the Open University and the one which has caught the public eye. Also, it and the radio broadcasts are the most accessible components of the learning system to the outside observer. I have now seen programs from two different academic years during my stay in England. And I have developed fairly strong views about the strengths and weaknesses of the Open University's use of the broadcast media.⁵

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5. I should clearly qualify the following remarks by stating two disqualifications. First, my criticisms come strictly from the viewer's perspective, not from the trained eye of the television professional. My personal broadcast experience has been limited to an assortment of assignments with WKCR-FM, the radio station of Columbia University. But my comments about the broadcast of the Open University are based upon a long time interest in the media as instruments of education -- intentional or otherwise. Secondly, the fact that I am not a student actually following a course means that I do not have the benefit of the total learning system when I view a program. And it also means that I do not work under the pressures of an adult learner doing a part time university course. Having now stated my disqualifications, let me state strongly that I believe my "reviews" of OU broadcasts deserve the attention due any serious critic; but I do recognize my (and others') limitations.

Particular programs in every faculty of the Open University can be quite good and can make effective use of television as a visual medium. I have seen a number of examples of this creative use. An Education Faculty program on comparative classroom techniques is a good example: it included film sequences to present very structured classroom situations and then juxtaposed open and informal classrooms; the commentary was used to raise questions for the students to ponder but not to provide final judgments on comparative effectiveness of teaching techniques.⁶ The Science Foundation Course was superb when it took the viewer to the Nuclear Accelerator at CERN in Switzerland to provide a program on⁷ experiments designed to further our understanding of nuclear particles. The Humanities Foundation Course creatively took professional actors and had them provide alternative renderings of scenes from Hamlet based upon different critical interpretations of the play.⁸ The Technology Foundation Course analyzed the problems of designing high voltage transmission lines by taking the viewer to different sites and showing how different technologists have provided alternative solutions to the problem.⁹ And the Social Sciences Foundation Course offered a program on immigrant communities in London where sensitive use was made of film clips of interviews with young people in Cypriot communities to illustrate the various problems which minority groups face in England.¹⁰

In spite of the strength of particular programs in all of the faculties, some faculties have succeeded much better than others in making creative use of the television medium as an "effective pipeline" (to use Wilbur Schramm's term) for educational messages; and, necessarily, some have been more often ineffective than not. The Social Sciences Foundation Course seems to me to have been one of the weakest. There seems to have been a fondness in the course team for the Social Sciences Foundation Course in particular and the Social Science Faculty in general for "talking faces." And the "faces" when they talk are rarely effective users of the television medium. The Humanities Faculty is also guilty of overuse of individual lecturers who do little more than provide a boring lecture over television. In fact the only lively Humanities programs which I have seen have been those which have involved Open University students as discussants or which have offered dramatic presentations. My impression of both Social Science and Humanities faculties -- in the second level as well as the foundation courses -- is that they have not, as a rule, made very creative use of television as a medium for educational programs. More often than not I get the feeling that I am watching a boring lecture or listening to an equally uninteresting seminar which happens to be on television. And I am always an impotent observer: my only possible intervention is to turn off the

6. School and Society, "Classroom Interaction" 282: Program 3, 18th June, 1972.

7. Fall, 1971

8. 14th June, 1972.

9. Fall, 1971

10. 10th March, 1972

television set, which I have often done and then blessed the technology which would allow me to do so.

A faculty which has made more interesting use of the medium has been the Mathematics Faculty, which has used computerized graphs to illustrate a number of mathematical ideas. I can only report on this one innovation in the Math faculty, because I have not followed the Mathematics Foundation Course regularly, and my own math background does not provide me with an adequate framework for appreciating other possible innovations.

The Science, Technology, and Education faculties seem to have made the most consistently creative use of the television medium. The Science Faculty regularly uses its weekly television program in the Foundation Course to provide the viewing student with a ringside seat for an experiment which could never be done by a student at home or even rarely by the traditional university student in his lab. The Technology Faculty often uses the mobility of film cameras to provide documentaries on the posing and solving of various technological problems which only visual presentation can fully communicate. And the Education Faculty uses television time almost exclusively as an opportunity to provide primary source material to illustrate actual classroom problems and alternative solutions, which are always presented in a way that leaves to the student judgments about their efficacy.

But even at its best the Open University use of the television medium suffers from an important drawback: the lack of facility for and experience in television communication from which most members of the Open University faculty seem to suffer. Time may erase the problems created by inexperience. But the personal lack of ability to communicate through television will continue to have its effects. The Vice Chancellor, Dr. Perry, has said that the Open University is and ought to be made up of qualified academics and not broadcasters. And he has initiated a hiring policy which seems to ignore totally the potential broadcasting potential of the lecturer.¹¹ Dr. Perry seems to believe that this hiring strategy is necessary in order for the Open University to be credible as a university institution. Perhaps. But it seems clear that the cavalier treatment of possible effectiveness on television as a criterion for appointment to the Open University is now reaping its own reward. Out of all of the members of faculty I have seen on a large number of Open University television programs, only one or two seem to be especially talented in television communication.

John Radcliffe, the senior producer in the Social Sciences Faculty, argues that it would be very difficult to predict the potential TV

11. See the EARLY DEVELOPMENT OF THE OPEN UNIVERSITY, Report of the Vice Chancellor, January 1969-December 1970, Bletchley, 1972, p.10. and statements on Open Forum and in the daily press.

performance ability of academics inexperienced in broadcasting. But one would think that broadcasters have developed enough experience to make some educated guesses about communication potential if some sort of "casting" exercise were devised for potential OU faculty. The important point is that potential for broadcast performance is not even considered to be a relevant criterion for selection of OU academic staff.

However, I should clearly indicate that there are some exceptions to my judgment about the inadequacy of most OU staff in terms of television performance. One spectacular exception to my overall judgment is Professor Michael Pentz, a former CERN nuclear physicist on the Science Faculty, who projects to the viewer a sense of competence and sincerity and enthusiasm which one rarely finds on regular television, much less in instructional broadcasting. Another exception demonstrates that experience can lead to improved performance: Dr. James Barber of the Social Sciences Faculty has, over the two years I have been watching Social Sciences courses, emerged as a very professional broadcaster who seems to be quite at home in the medium. So it is clear that one can find the combination of academic qualification and broadcasting ability (probably potential, not actual) if he looks for it. The problem is that for the most part OU staff has been appointed without any reference to talent for television.

If, in spite of official OU policy, there have been some very good programs and there are a few outstanding performers, then because of this policy there have been many absolutely atrocious programs. The worst of the Open University television programs -- with its combination of poor production and bad performances -- is well illustrated by a recent second level Social Sciences program in Geography, which investigated the problems of discrimination against minority communities in housing: New Trends in Geography, "The Geography of Immigrant Housing," D281, Program 6, 14th June, 1972. This program was introduced by a young lecturer in Geography at the Open University (who, I have later learned, was presenting his first television program). He was obviously ill at ease and ill prepared. His introductory comments were trivial. Then there was a film sequence made up of clips of comments by white and black residents of various towns in Britain. These clips were edited as staccato changes of view and source, running together in a manner which provided no overall sense of positions but instead an impression of confusion and contradiction. Now admittedly this confusion and contradiction reflected the diversity of views held by various groups in urban Britain, but the editing compounded the difficulty of making anything out of the comments. After this film clip the OU lecturer introduced three experts who each proceeded to give three minute talks about different aspects of the problem. There was no joinder of issue among them. And the lecturer seemed quite hesitant himself in his attempt to sum up the issues and relate the commentators' view to the film clip. The program ended with a reference to a forthcoming radio

program where the professional participants were scheduled to discuss the issues raised in the television program. This particular move was unobjectionable and seemed to make optimum use of the interrelationships in the overall learning system. However, the radio program itself turned out to be quite uninspiring and did not clarify the television program very much.

What was so unsatisfactory about this television program in the second level geography course was that it did not hang together at all. Even the best prepared student would have found the program to be both confused and confusing. It was so fragmented that even when one of the guest commentators had something worthwhile to say -- and a couple of them did -- it was lost in the incoherence of the whole. This program, like altogether too many other Open University television productions, appeared to be the British Amateur Hour. With experience the lecturer and the overall production staff will undoubtedly improve. But programs such as this should be avoided in the first place by better selection of staff, better training, and even longer time for production.

Greater care in selection of staff and production of television programs is very important, because production mistakes will have long lives. No more than ten percent of the television programs can be revised in any given year. So many bad programs will be hampering the effectiveness of the overall learning system for a long time to come.

In contrast to the many lapses in quality in the production standard of OU television programs, the quality of radio programs is consistently higher.¹² It is clear that the Open University academic staff members are far more at ease in the use of the radio medium. And they use it to good advantage to provide flexibility in an overall learning system which is not that flexible because of the lead time and expense of both published materials and television.

Two radio programs illustrate the good use to which radio is put. In a second level Technology course on Electromagnetics and Electronics, the lecturer provided a short talk on the economics of planning the production of integrated circuits.¹³ This talk ended before the scheduled completion of the allotted time. Then the Professor in the Electronics sub-faculty and two of the lecturers used the remaining program time to discuss a problem which had appeared in the continuous assessment written assignments for the course and which was causing many

12. This particular judgment illustrates a difference in perspective between me and the typical OU student. John Robinson, coordinator for OU programs for the BBC, says that students consistently rate TV programs better than radio programs. Naomi McIntosh has found that OU students view TV more regularly than they listen to radio programs. See McIntosh, "Research for a New Institution: The Open University," Innovation In Higher Education, April 1972, London, p.16.

13. "Planning Techniques in Electronics" - T5282, Program 3, 14th June 1972.

difficulties for the students. The problem involved modeling electronic circuitry. The team for this program used the radio medium to deal with a particular problem which had recently arisen in the course of using the other components of the learning system.

The second radio program which illustrates the strength of the medium is one from the Education Faculty, which presented an analysis of techniques for diagnosing and dealing with the problems of young boys.¹⁴ The program drew on stories made up by teenage boys, which were recorded in the boys' own voices. The lecturer then commented on the significance of each example.

My overall assessment of the Open University's use of the two broadcast media is that the radio component is far superior to the usual television component. The weaknesses in both should be remedied in part by experience gained over time. But even now in both media there are moments of real strength in all faculties. However, the moments of inspired and imaginative use of the visual and aural broadcast media are very rare indeed.

An American observer cannot help but make a comparison between the imagination and creativity shown by the Children's Television Workshop (CTW) in Sesame Street, which, for all of its shortcomings as an educational program (i.e., lack of involvement of the child-viewer and low expectation of response on part of audience) and for all of the problems of comparing a university program with a preschool program, I believe undeniably makes creative use of television. The standard of creativity in the use of the medium set by Sesame Street is never¹⁵ approached even by the very best Open University programs.

14. Personality Growth and Learning - "Story Model for Teenage Boys," # 281 - Program 11, 18th June, 1972.

15. I should acknowledge in this comparison that my judgment refers strictly to the broadcast performance of the two units. The Open University has devised a support system for its television component which is far superior to anything attempted by the Children's Television Workshop. However, it must be understood that a comparable support system for CTW would involve a national system of kindergartens which would require financing at a level far beyond its present budget. But I would argue that such a support system -- the development of a full scale multi-media learning system based on the Children's Television Workshop -- would be a reasonable and important next step in the reform of which Sesame Street (and its brother, The Electric Company) is a part. And the investment required would repay a high social dividend. But to support this last argument, I would have to write another essay.

The Children's Television Workshop has followed the strategy of treating educational television as a medium for performance and entertainment in the service of education; and this has not been at the expense of educational content. The educational character, though subject to some academic dispute, is monitored and has been commended by some of America's outstanding experts in education and child development.

Although I would not argue that university level physics or maths ought to be treated as an occasion for superficial amusement, I would suggest that the Open University television components would be far better if the demands and possibilities of the medium for generating audience interest were given a higher priority in course design and implementation. This argument has special force in regard to the Social Sciences Faculty and the Humanities Faculty. One could not say that humanities and social sciences programs would suffer from the production imagination and performance quality of Kenneth Clark's acclaimed 'Civilization' series, Ed Murrow's historic specials in the 1950s, the BBC's Man Alive and Controversy series. These programs represent a standard of creativity and imagination which is directly applicable to OU productions.

Some OU staff claim that productions of Civilization or Sesame Street standard can be had only if the OU has budgets equivalent to those of prime time presentations. This point is well taken in so far as it is a claim that first rate television cannot be had on the cheap. And OU programs do operate on a very tight budget: approximately £1000 per TV program and £100 per radio program for all production expenses except salaries.¹⁶ But the relationship between production budget and imagination is not direct -- to invoke another visual medium: how many low budget motion pictures are far superior to their multi-million Pound/Dollar stable-mates? Also, in British television for children there is an example of a low-budget program which makes quite creative use of the visual medium -- Vision On, a program originally for deaf children, uses visual effects to communicate a wide range of knowledge and experience. And this is the challenge to the Open University: to learn to use uniquely visual language to communicate ideas which in the past have been limited to verbal communication. With a moderately more generous budget and a great deal more imagination, the OU production teams could bring to instructional television at the university level the creativity of the Children's Television Workshop and the Vision On production company.

A further minor but relevant criticism of the broadcast components of the Open University system is that the TV and radio programs are rarely coherent enough in and of themselves to provide a satisfactory

16. John Robinson, BBC OU coordinator.

viewing and learning experience for the casual viewer or listener. Officials at the Open University justify the fragmentary character of each broadcast program by reminding the objector that these are part¹⁷ of an overall learning system and are not meant to stand by themselves. Acknowledging the factual truth of this assertion, I would argue that with a minimal investment of broadcast time but once again with a much greater investment of production imagination, the enjoyment and benefit of the larger but casual viewing audience could be served. And it should be noted that John Robinson, OU Coordinator at the BBC, estimates that significantly more casual viewers view OU programs than enrolled students. The problem is that the edification of the casual viewer is considered to be irrelevant to the production purposes of OU course teams. I would wager that if attention were paid to making OU TV and radio broadcasts understandable by and enjoyable to the intelligent but casual viewer, an even larger casual audience would appear and there would be a significant premium provided by the Open University investment.

Putting aside this critique of the use of the broadcast media, I would register a further criticism of some of the OU courses: in terms of academic quality and intellectual content, the courses are not often very exciting and by international standards are quite conservative.

I can justify this substantive criticism of OU courses only in regard to the Social Sciences and Humanities courses whose broadcasts and materials I have relatively carefully examined; although I have heard the same said about the Science programs. The Social Sciences Foundation Course and the Humanities Foundation Course are both no more than disciplinary collages offered by disciplinary faculties in a modish, interdisciplinary form. Both of these Foundation Courses are at best intellectual patchwork quilts. I should hasten to qualify this particular criticism by acknowledging the difficulty of launching and producing any sort of course which attempts to draw on various disciplines in a systematic, cooperative, and coherent way to illuminate common problems and to analyze different disciplinary approaches. The first requirement for a successful interdisciplinary course, at least from my own personal experience, is time for members of course teams to come to understand each others' disciplinings¹⁸ as they apply to agreed upon problems of mutual intellectual interest. And this time none of the OU course teams have had. Since interdisciplinary courses, like good whiskey, improve with age, I expect to see improvement in the Foundation courses in coming years. However, this improvement will not surface for another three years, because the life of each course must be four years in the first instance. And this improvement will occur only if courses which

17. Office of Information Services, Open University and John Radcliffe, Senior Producer, Social Sciences Faculty, BBC.

18. My experience in this regard was with the interdisciplinary policy studies teams in the Program in Public Policy Studies of the Claremont Colleges in California.

pretend to be interdisciplinary have staff who recognize the difficulties and who are committed to the hard work of analysis which an interdisciplinary approach requires. The glue of a joint faculty is not enough to hold the disciplines together in introductory courses. And although time may promote improvement in the foundation courses, I cannot help but feel disappointed that nothing more exciting and dramatic has been tried so far.

The Education and Technology faculties have faced somewhat different problems in that their areas of academic interest are by their very nature interdisciplinary and those participating in these faculties have had experience with other disciplines. The Technology Foundation Course seems to draw on the different disciplines applicable to specific problems in a very creative manner. The Education Faculty, which does not offer a foundation course, combines disciplinary perspectives creatively in their second level courses.

One criticism of the foundation courses which I would not make is one which was suggested to me by a lecturer in a polytechnic, who also is a part-time tutor in the Social Sciences Foundation Course: he said that the "academic standards" were not as high in this course as in his own first year course in a combined¹⁹ and interdisciplinary social sciences degree course at his polytechnic. This particular criticism misses the point about the purpose of Foundation courses, which is to provide a transitional intellectual experience for adults who have not been in formal classroom situations for a period of time but who have the skill and ability to do university level work. It is no criticism of foundation courses to say that they are not up to university standard as first year courses. This criticism is especially irrelevant since the Open University degree sequence is equivalent to the four year Scottish University experience instead of the usual three year English university exercise. Criticism about academic quality must be made in terms of the upper level courses more than the foundation courses. And the overall judgment must be reserved until we have a whole Open University curriculum to look at.

My one comment on the upper level courses would be that those which I have seen do not indicate any greater imagination in intellectual design than the foundation courses of their respective faculties: the better the foundation course, the better the second level offerings. But my sample here is quite limited. And the existing range of upper level offerings is presently only at the second level and not very extensive there. So judgments must in fairness be reserved.

My own conclusion about the broadcast and publication components of the Open University learning system is that at their best they show some

19. Polytechnics offer university degree level work, which is validated by an external examining body, the Council for National Academic Awards.

of the outstanding possibilities of a multi-media approach to education. But they are seldom at their best. And, in regard to the broadcast components, even at their best they seem to suffer from the constraint of often seeming to play to an audience of traditional university judges more than to their students: they indicate a desire for credibility through conventionality in content and design which cramps the creative style necessary to make the most of the multi-media system.

Two positive lessons are clear from the brief record of the evolving Open University experience: first, that television, radio, and attractive printed materials can be combined to provide the core of university level work, which can then be drawn upon by an audience with widely divergent abilities and interests; and second, that these components are not sufficient. An open university (or other open educational system) must also have a network for local and personal assistance to the student -- what the Open University calls "study centers." It is to this component and its organizational framework that I next turn.

III. STUDY CENTERS: THE SOCIAL INFRASTRUCTURE OF THE OPEN UNIVERSITY

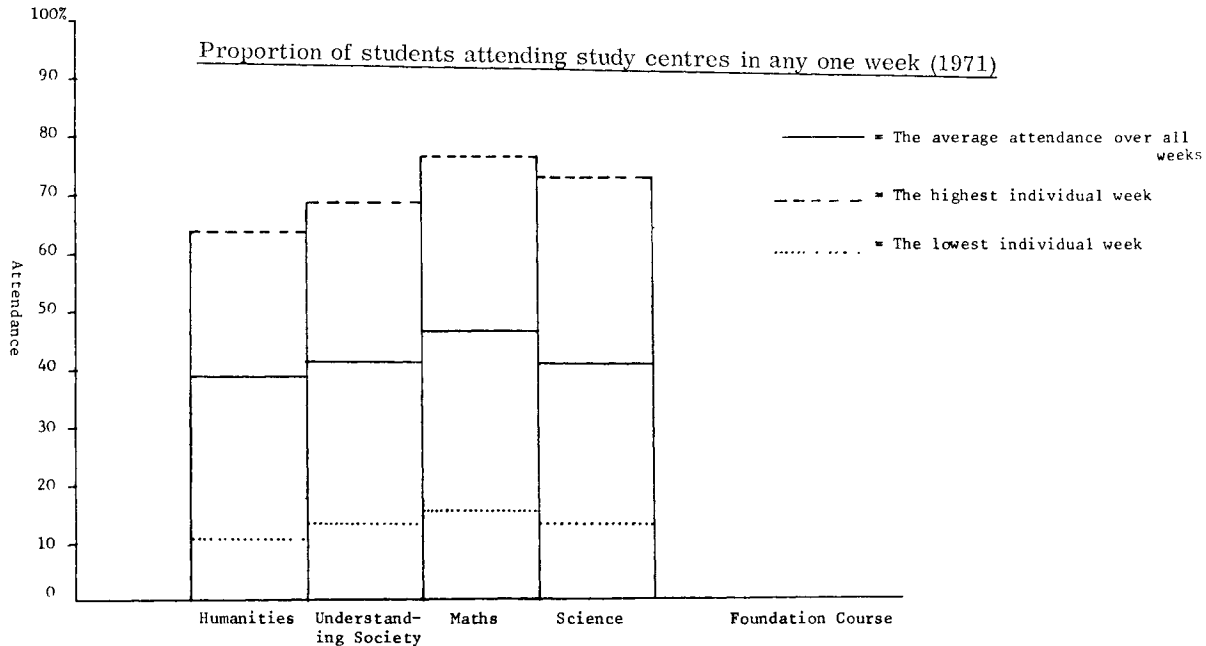
One of the most far sighted elements of the Open University, in theory at least, is the network of study centers designed to provide a human dimension to the correspondence and broadcast materials. The original planners of the Open University very well understood -- in a way missed by educational technologists and broadcasters in other countries -- that successful learning requires some degree of ongoing contact with student peers and at least one other person with special qualifications who can help the student with his learning problems. So the OU organized a system of 250 study centers from the Orkneys in Scotland to Brighton on the South Coast. Each study center has at least one tutor in each faculty which has students in the area and also at least one counsellor. The numbers of students in each study center varies; although most are made up of about 100.

Participation in the activities of the study centers is optional for the students: a student is supposed to be able to complete the academic work successfully without the benefit of face to face contact with his tutor. The record of attendance varies from center to center and according to the time of year. Attendance is not generally good -- it averages below 50% over the year.²⁰ This poor attendance raises questions about how the reality of life at the study centers relates to the theory of their role as the human interface between broadcasting and individuals. Poor attendance may be a function of transportation

20. See Figure 2, which is reprinted from Figure 12, "Research for a new institution: the Open University." Naomi E. MacIntosh, in Innovation in Higher Education, Society for Research in Higher Education, April, 1972, London.

problems; but even at metropolitan centers the attendance rate is relatively low.

Figure 2.



The subject tutor is always a part-time appointee with no more than twenty students per tutorial group. Any individual tutor is allowed to take no more than two tutorial groups. Each tutor earns about £250 per year per group. The tutors, this year numbering about 4000, are drawn from a wide range of backgrounds. Many teach in other universities, polytechnics, and institutions of adult education. Some are public school teachers. A few are professional people with appropriate vocational experience.

The tutor conducts a regular tutorial session for all of his students at the local study centers. He also grades the tutor-marked assignments in the correspondence materials. In the first year of the Open University, there were separate correspondence tutors to grade assignments and class tutors to provide the class sessions. But this dichotomy proved to be quite unsatisfactory. So the two roles were combined.

The effectiveness of the tutorial system is in some doubt. A number of Open University students have told me that although they had hoped and expected that their tutorial sessions would be among the most helpful component of their courses, in fact these sessions had been marginal in their assistance to the students. And this marginality was not due to the sufficiency of the broadcast and published materials.

Although these parts of the system may have been designed to stand by themselves where necessary, every student I talked to emphasized the need for personal tuition to master the material of the Foundation courses and the second level courses. Poor attendance at tutorial session does not reflect the strength of the rest of the learning system: it indicates the weakness of the social infrastructure.

My own observations support the student comments. I visited a study center in the London Borough of Hendon, where I talked to two tutors and a number of students; also, I sat in on one tutorial for the Social Sciences Foundation Course. I also visited a second study center in West Hampstead in London.

The Hendon Study Center is located in two or three rooms of the Hendon College of Technology, a technical college which offers mainly trade courses for school leavers but which also hosts a smattering of evening classes for adults. The Study Center has no formal affiliation with the technical college; it only rents the facilities for certain nights of the week. The Study Center facilities include a cupboard in which various tapes, 16mm films, and documents are kept, and also a large classroom television set. There is a 16mm projector for viewing films of television programs which students might have missed; and a large file of such films is kept on hand.

The two tutors in the Social Sciences Foundation Course at the Hendon Center were quite different sorts of people. One teacher was a lecturer at a technical college. This lecturer came up to his supervisor, Mrs. Vida Carver, the Social Sciences Staff Tutor for London, who was showing me around the center, and said that he had no idea what he was supposed to do with his tutorial group that night. He had missed the general information session for tutors, which was the sole preparation for tutorial work offered to these part-time tutors. Had the supervisor not been there, this tutor's tutees would have been at a complete loss for the evening. But according to Mrs. Carver, who attended the tutorial that night, this tutor did in fact do a good job that evening. Since I sat in on the tutorial offered by the other tutor, I cannot offer a personal judgment.

The second tutor was a secondary school teacher. He treated the tutorial as an occasion for delivering a lecture on the topic of the week -- supposedly "socialization." But most of the evening was devoted to a related topic: he provided his own unusual analysis of the difference between "operant conditioning" in B.F. Skinner's behaviourist theories and all other psychological and sociological theories. His account seemed generally correct in the simplest way, but it seemed to be nothing more than the Sunday newspaper magazine article on which he said he based it. And he missed the most interesting questions about Skinner's

theories: about causation, (what is in the black box?) and the relationship between Skinner's psychological concepts, his social theories, and various value positions. Also, he did a woeful job of relating behaviourism in psychology to various sociological theories of socialization.

Next the tutor went on to consider Freud's theories of personality and quoted extensively from Freud's original works in a way which communicated through example the importance of going back to original sources in a learning experience: an important lesson for students whose major reading is the course unit prepared especially for the Open University and which often minces the meat of important ideas into baby food. His comments on Freud were interesting and sometimes perceptive. But he did not relate Freud's particular points to the more general issues of personality theory raised in the students' reading. Nor did he take advantage of the opportunity of comparing and contrasting Freud and Skinner. Instead he attempted to be profound and compare and contrast environmentalists, among whom he seemed to number only Skinner and the structuralists, particular examples of whom he never mentioned. All in all, after listening to this lecture-tutorial, I felt I had been offered a number of dangling strings, none of which tied together.

But the most important criticism to be made of this "tutorial" was that it was in fact a lecture. It was clear from the brief discussion which followed the fifty minute discourse that the students had come to the tutorial class prepared with a number of questions, problems, and opinions about the topics under consideration. But because of the length of the lecture, the tutor had not left time to deal with them. Nor was he prepared to discuss any of the particular questions intelligently. And his long lecture had obviously turned off many of the students who were, by the discussion period, unwilling to participate and ask questions.

This lecture approach was especially unsatisfactory for two reasons: first, the students were asked to play the same, essentially passive role which the broadcast components of the learning system impose on them and from which the tutorial sessions should deliver them; second, the diverse needs of a heterogeneous group of students were ignored.

The heterogeneity of the students in the tutorial class was the most striking impression which I took away from it. The class ranged from young men and women who had just passed the OU minimum age of 21 to old age pensioners. The ethnic groups represented included "proper" Englishmen as well as Africans and Orientals; and educational backgrounds ranged from a man who had left school at 15 to a minister with a theological degree. So this diversity meant that many levels of ability and attainment were present; therefore, there were students with very different learning problems, few of which were met by the lecture approach to the tutorial.

After the tutorial I talked to a number of the students who volunteered an analysis of the problems of the tutorial session which they had just left; their impressions were quite consistent with mine. And each student mentioned the importance which he or she had hoped to attach to these sessions. The students were especially sensitive to their isolation from learning and other learners in the Open University system; they had hoped that the tutorial sessions would overcome this feeling of isolation. But they were not sanguine about what they could expect from the formal tutorial sessions. So, on their own initiative, some of the students started exchanging phone numbers in order to arrange meetings to discuss course problems outside of the tutorial sessions.

When I communicated these criticisms to the Staff Tutor, Dr. Carver, she said that from past experience she had found that Open University students did not know how to participate in a more open tutorial session at a point early in the term. But that they opened up as the term went on. Perhaps her experience is correct. But my observation of this one tutorial class leads me to believe that even early in the term, with the appropriate style of tutorial leadership, a very open discussion of intellectual problems in the material and the learning problems of the students would have generated an exciting and rewarding discussion for everyone present and would have provided a better social context for the overall Open University learning system. The inadequacy of the session was due to the tutor's weakness.

Dr. Carver had a long session with the tutor whose session I visited and advised him about teaching techniques which might make the tutorial meeting much more of a seminar experience. But Dr. Carver does not have adequate time to monitor and support each of her tutors in this manner.

Dr. Carver monitors tutors mainly through random sampling of various tutors' comments on student continuous assessment assignments, which she undertakes on a regular and systematic basis. And since the pool of tutors has been relatively constant in its base -- the new tutors have been additions -- she has been able to get to know many of the "experienced" tutors personally. She believes that most have improved with their experience and that all are basically qualified.

However, if my limited sample is relevant and if the comments I have heard from a number of students are correct, the tutorial meetings are often quite disappointing experiences. And I believe that the problems with tutorial groups lie in fact that tutor education has been left to a process of socialization by default. Effective tutorial leadership will not just happen. The Open University must develop continuing education and support programs for its part-time staff if it wants the study center to contribute to the effectiveness of the system as a whole.

In addition to the tutors at the study centers, there are also counsellors who are assigned to each student to assist him or her in regard to personal study problems. These counsellors administer the

study centers. They are part-time appointees, just like the tutors. Often the same person will be a tutor in one of the courses and a counsellor to another group of students. But even in the combined role, the appointments are at most quarter-time.

The counsellor's role is quite ambiguous. He or she is supposed to help the adult students with the problems of going back to school. The appropriate approach to this assignment seems to be just as unclear to the counsellors themselves as it is to me. According to Ben Turock, a Senior Counsellor who supervises counsellors in five study centers, the counselling done by the counselling staff is not psychological or sociological in any professional sense of these terms, although it has elements of both; but it is academic and attempts to deal with the learning problems of the particular student. He says that the best counsellors are those who bring an academic interest and ability in a particular subject to the activity of helping students with their personal learning problems; for this reason he likes to appoint counsellors who are also tutors to other students.

At the West Hampstead Study Center I talked to a counsellor attached to the Science Foundation course who was quite representative of the other counsellors I have met. Her personal history is relevant, because the ambiguity of the counselling role means that personal experience is directly related to counselling style. She had received her own university education as a mature student -- a not uncommon characteristic of OU staff, part-time and full-time. Indeed she had worked through her PhD on a part-time basis. Her own discipline was zoology. She had taught in universities and colleges of education. Presently she is a full time lecturer in a London college of education. She said that the most exciting challenge she found as a counsellor with the Open University was in dealing with the wide range of abilities and backgrounds of OU students, a range which was much wider than that of her students in the college of education.

From the student's point of view, the counsellors play a crucial role during the first year when each student is making the transition into meeting the demands of being a student. The counselling system, although ambiguous in function, seems to have been a successful innovation.

All of the counsellors and tutors are organized into thirteen geographical regions. Each region has a director who organizes the study center operations for his area through a staff of Staff Tutors in each faculty and Senior Counsellors. The Staff Tutors have shared loyalties and responsibilities between the faculty structure at the headquarters in Walton Hall and their regional office. The regional office seems to have very little authority in itself. It seems to function as nothing much more than a hiring center for the part-time tutors and counsellors and as a trouble shooting facility for problems associated with scheduling of activities at study centers. Scheduling seems to be the most important continuing responsibility of the regional offices.

The Staff Tutors and Senior Counsellors are probably the most over-worked academics in the world. Most of them spend ten to twenty hours per day on the job. The Staff Tutor, Dr. Vida Carver, and the Senior Counsellor, Mr. Ben Turock, whom I met in the London Regional Office, were both competent and dedicated people who were obviously so overworked that they could not hope to accomplish all that they set out to do on behalf of their part-time colleagues and students. Both Staff Tutors and Senior Counsellors are essentially supervisors of the part-time, front-line staff. And the Senior Counsellors are the chief scheduling officers for the study centers in their areas.

Staff Tutors are appointed to subject faculties and spend about a day a week at the Open University campus in Milton Keynes. They are full members of the Faculty Boards and of the University Senate, the academic policy bodies of the Open University. Some of the Staff Tutors have taken a very active role in the central policy making and educational process. For example, Dr. Carver has initiated and drafted the first outline of a post-experience course which is now programmed for presentation in 1973; and another Staff Tutor is chairman of one of the second level course teams in Social Sciences. But the most important function served by the typical Staff Tutor in relation to the faculties seems to be that of channel for feedback from part-time staff and students at the study centers to the central campus faculty at Walton Hall.

The Senior Counsellor's appointment is just to the regional office, and all of his responsibilities are vested there. But even some Senior Counsellors are involved at least tangentially in the academic policy making. An example here is Ben Turock's role as a reviewer of some of the unit materials in the Technology Faculty.

In contrast to the full time staff, the part-time tutorial and counselling staffs seem to be marginal in the design, implementation and criticism of the Open University courses as they are prepared. There is the occasional exception to the rule: e.g., a London economics tutor who is a consultant to a second level course team; but his involvement seems to rest on his personal credentials outside of the OU, not on his involvement as a course tutor. This social infrastructure is expected to support whatever is put upon its framework. There is the occasional consultation meeting between central academic staff and part-time tutors and counsellors; but this rarely happens more than once or twice a year. Only when there is organized rebellion in the ranks does there appear to be great notice taken of their views.

The whole study center system does not seem to hold a central position in the multi-media learning system as implemented. Relatively little support is given to the part-time staff who carry the major burden of study center operation. And the full time staff which is supposed to help is hopelessly overworked. Although there is some merit in the inefficacy of the Open University supervision of part-time staff,

its costs are quite great. Given the diversity and heterogeneity of both teaching staff and students, one would have expected a far stronger system of support and training for tutors and counsellors. The occasional termly meeting of part-time staff in a given region is prima facie inadequate.

The Open University appears to be seriously and adversely affecting the quality of its learning system by attempting to provide its social infrastructure on the cheap. In order to implement successfully the study center system, which is so crucial to the success of the overall program, the Open University needs a staff of Staff Tutors and Senior Counsellors large enough to assist the part-time counsellors and tutors in their day to day work by providing in-service education and other support activities.

Many current full time staff members are trying to provide adequate support. Dr. Carver is attempting to help her tutors by identifying the strengths and weaknesses of each in regard to each subject area covered by the Social Sciences Foundation Course and then scheduling replacements for those who feel they cannot cope with a particular subject at a particular time. However, she does not believe that she has the time or the resources to organize seminars for her tutors to help them overcome their subject weaknesses or to improve their teaching techniques. Nor are the resources available to the part-time tutors to allow them to organize such services for themselves. In spite of the energy and commitment of Staff Tutors such as Dr. Carver, there is a limit to what one or two Staff Tutors or Senior Counsellors can do for a whole region. And there is so much to be done.

To make the study center system live up to its potential some major changes in the organization and support of the part-time staff seem in order. Such changes could dramatically increase the quality of the overall learning system.

The creation of three-quarter time study center directors could relieve the regional staff of some of its administrative and supervisory duties -- especially study center scheduling. Each director could be attached to the institution hosting the study center and teach there as well as play both tutorial and counselling roles within the framework of the Open University. Such directors would provide leadership at the study center level which is presently lacking. The study center then could become more of the intellectual forum for which OU students are looking. Also, a study center director could provide continuing contact among the OU, its students, and the local communities. At present the record of community involvement by the OU at the local level is very spotty: it seems to depend upon an occasional activist counsellor or student. And since the OU learning system often asks the students and staff to make demands on community resources -- through surveys,

observations, field experiments and the like -- it would certainly be in the interest of the OU to improve these local relationships. And in the process the OU might learn how the study centers and the other components of the learning system can be responsive to needs as more locally defined.

The Open University may find it worthwhile to look for other sites for centers and other sources for directors. Teacher centers and their wardens might be possible candidates.

More money ought to be spent on the part time staff of tutors and counsellors so that they feel obligated to commit more time to their Open University assignments. Already they are working longer hours and with greater energy than one would expect from the meagre stipend they are paid. But in addition to the reading of student assessment exercises and the conduct of tutorial sessions, (or in the case of counsellors, the dealing with student problems), tutors and counsellors must be persuaded to devote a certain additional amount of time to their own education for the tasks they have undertaken. Any such commitment to inservice education must be supported by additional compensation. The service of love must be complemented by the recognition of money.

The heavy reliance which the Open University places on the publishing and broadcast components of the learning system, as reflected in both student time commitment and requirements, means that the limited time devoted to the optional tutorials must be of a very high quality. And this quality is not encouraged by a social infrastructure which leaves each tutor isolated from his colleagues and unsupported by the university professional staff. The tutorial system of the Open University seems to have incorporated all of the worst feature of large lectures and "section men" in large American Universities.

The Open University needs a systematic program of preservice and inservice education for tutors and counsellors and a reorganization of the relationship among part-time, regional full time staff and those at the central offices in Walton Hall. This reorganization must be such that it will elevate the part-time and regional staff to a peer relationship with the Walton Hall faculty and will provide especially the part-time staff with continuing support and education. The Senior Counsellors and the Staff Tutors are the appropriate point for this change: if they were better integrated into the overall decision-making and policy process, and if there were more of them to assist the part-time staff, then the quality of services provided at the study centers would probably improve. I can only suggest that there is a problem here.

The potential of study centers is indicated not only in the occasionally successful center but also in the consistent success of Open University summer schools. Participating students and faculty

regularly compliment the personal contact and intellectual challenge of the summer school experience, which is required of each student in the foundation courses. Life at the study centers should provide an equally high quality experience for both students and staff on an ongoing basis.

The idea of the system of study centers and the roles of tutors and counsellors showed great foresight on the part of the planners of the Open University. And the people who have been attracted to fulfill this promise have been of a relatively high quality. The problem has been in providing adequate financial and organizational resources to implement the promise. It does not seem to be sufficiently appreciated that it will only be through the vitality of a high quality social infrastructure that the promise of the educational technologies used in the Open University will be made real in terms of educational achievement.

The general problem which the system of study centers attempts to solve is that of harnessing educational technology to serve the whole range of social problems of large numbers of individuals. The experiences of the Open University tell us much about the difficulties of implementing some good theoretical regulations to this problem. Perhaps with some imagination and further commitment of resources, its future record will tell us something about how actually to solve them.

The total multi-media learning system which is the Open University is full of promises for solving the whole basket of educational problems. The most important question is one of priorities in attempting to test and implement the proposed solutions. This problem leads us to a more general critique of the Open University and its appropriate role in British Higher education as well as to the lessons which it can teach other educational systems. The Open University for what purpose? This must be our next question.

IV. THE OPEN UNIVERSITY AND EQUALITY IN HIGHER EDUCATION

If one reads the rhetoric which preceded and surrounded the birth of the Open University, it seems that the first priority of the institution should be quite clear. Harold Wilson said at Scarborough in 1963, when floating the idea of the "University of the Air," that the new university should serve "those who, for one reason or another, have not been able to take advantage of higher education."²¹ The purpose of the Open University as stated by Wilson and accepted by all of the founding fathers was to improve equality of access to higher education by creating a university for working adults who were unable to attend university when they were originally of university age. The Open University was

21. quoted in Tyrell Burgess, "The Open University," New Society, 27 April, 1972.

definitely intended to have a role in mitigating inequality of access to higher education in Great Britain.

Whether or not the Open University is in fact successfully meeting this objective of improving access to higher education is presently a matter of debate. In the New Society of 27 April, 1972, Tyrell Burgess, a British educational critic, vehemently argued that the Open University was not only not meeting this objective but had completely abandoned it:

With a restricted number of places and an elaborate quota system for courses and regions, the openness of the university looks a little theoretical, but it does at least try not to demand A levels.²² The trouble is that to the question "what is it all for?", the only reply can be, for its own sake The Open University was founded in this country to mitigate social inequality. It is being taken up abroad for the same reasons. Here, it can be seen to have failed and the university can avoid the sense of failure only by giving up the initial objective. The form of the university enables it₂₃ to entertain, but makes it hard for it to educate

Burgess supports his argument by looking at the actual statements of Open University officials, especially Dr. Walter Perry, the Vice-Chancellor, who seems to have self-consciously abandoned, at least for the present, an active recruitment policy²⁴ directed toward those who have had no post secondary education at all. Burgess is on strong ground in his account of the views of Open University officials. In addition to the public statements on the record, it is clear from my conversations with various members of the Open University staff that ability to do Open University work is considered to be closely related to past participation in further and higher education. This expectation is allowed to act as a barrier of sorts to the supposedly open access, which, at any rate, does not really exist because of the limited resources available to the Open University as a whole.

22. "A levels" are the exam required of all secondary students for entry to most British universities.

23. p. 178

24. See Dr. Perry's address to the Royal Institution, Proceedings of the Royal Institution, 44, No. 203, 1970, and his speech at the North England Education Conference, Leeds, reported in the Times Higher Education Supplement, 7 January, 1972.

Burgess goes on to suggest that the fact that the Open University is a "university" means that it will be forced to play by rules of credibility which will keep it from dealing with the needs of the adults who are capable of higher education but who have in the past been deprived of it. He argues that the very nature of a university, with its emphasis on disciplines, makes it impossible for such an institution to focus on the needs of its students. Preoccupation with the structure of knowledge blinds universities to the requirements of individual students. He approvingly contrasts the attitude of primary school teachers in England with those of the traditional university academic.

I cannot support Burgess's argument about the nature of the university entailing failure in regard to mitigating inequality of higher educational opportunity. I believe that he oversimplifies the complex relationship between the "demands of knowledge" and the "needs of students." The actual record of the Open University demonstrates an awareness of the problem on the part of the staff of the OU. The problem has certainly not been solved. But there is no logical reason why the "demands of knowledge" cannot be met in a manner which is consistent with the "needs of students." And there is nothing to suggest that this problem is unique to universities; the primary school teacher should consider this problem to be as important to him as to the university lecturer. Yet Burgess's point does raise a fundamental question about the consistency of the pursuit of the goal of social equality through higher education with the nature of the university. I shall return to this question in a moment; to provide it with its proper setting, I must report the other side of the Open University equality debate and place it in its factual context.

The supporters of the Open University and its record had their standard bearer in Professor Martin Trow of the University of California, who challenged Burgess's position with this argument:

The brunt of Tyrell Burgess's charge of failure rests on his assertion that "the Open University was founded in this country to mitigate social inequality." But that is a very large responsibility to lay on any educational institution. I am sure he must know that the roots of social inequality lie in the distribution of property and income, and are better attacked by social policies aimed at the economic basis of class. It is possible to try to mitigate the social inequalities in educational opportunity, but the further along one moves in the formal educational system, the more one is dealing with the educational consequences of past and present social inequality -- and these stubbornly persist to thwart the intentions of egalitarians, however passionate their rhetoric.²⁵

25. New Society, 4 May, 1972, p 229.

Without attempting to defend the letter of Burgess's critique, I must say that Trow seems to miss his point. The argument is not that the Open University has not saved society (although in Burgess's quoted remarks he seems to be saying this) but that it has not significantly contributed to an improvement of access to higher education for those who have been in the past deprived of it. At least this is the serious argument which I and other critics would make. Even though the Open University in and of itself cannot be expected to transform society, it certainly can be expected to do a better job of dealing with the so called "educational consequences" of this inequality. And, to respond to Trow, the one tool, albeit quite limited in impact, for dealing with the educational parameters of social inequality is more education. The past efforts at using education in its traditional institutional forms to deal with this educational inequality have failed; therefore, the Open University should be trying radically new approaches to dealing with this problem.

Trow goes on to evade the Open University's overall obligations toward increasing equality of educational opportunity by an amazing non-argument:

I also doubt whether it is useful to assess an institution so largely in terms of its original objectives ... Does Burgess believe that the Open University could have been created in the late sixties other than as a university, which, in the British context, sharply limits (though does not wholly destroy) its power to reduce educational inequalities?²⁶

No matter what the founders said, no matter why the money was appropriated, says Trow. The objective of mitigating social inequality as manifested in inequality of higher educational opportunity is irrelevant first because the natural evolution of this institution means there will be evolution of purposes and second because the original objective was impossible in the chosen institutional form. What Trow seems to be saying is that the reasons for activities of social institutions are irrelevant. If this is so, then it is obviously irrelevant to argue with him.

My only response to the point about the evolution of institutions is that the original objective still continues to provide the most important policy justification offered by those who provide funds to the Open University; the present force of a past objective makes it relevant and important. The point about the nature of the university and its role in dealing with inequality will be dealt with once we put the issue in its factual context.

Open University spokesmen sometimes seem to be attempting to hide the problem of the Open University's contribution (or lack thereof) to equality of higher education with hyperbole. Dr. Perry implied that in fact the Open University does serve the working class and thereby contributes to greater social equality: "..... So many of our middle class students have battled up from the working class in spite of many deprivations."²⁷ Dr. Perry makes this point in the context of calling attention to the fact that comparison between statistics used in the Open University and other universities must be approached with caution. Most British university statistics record the occupation of students' fathers, not the present occupations of the student. Therefore, OU statistics which are registered in the latter terms are not directly comparable with conventional university statistics. However, for purposes of evaluating the class character of the OU, I would argue that the OU method is correct, and therefore its record must stand or fall on its own merits. So to accept Dr. Perry's position would be to accept the following argument: even though the OU students look like they are now middle class by occupational category, they should be counted as working class because they came from working class families originally. This is like arguing that the red traffic light which you just ran was really green, because it was green a few minutes before. Not very persuasive.

The statistics presently available about the socio-economic composition of the Open University student body are still sparse. In the next few months, because of the work of the University's Institute for Educational Research, more detail will be available. But tentative answers can be culled from materials provided by Naomi McIntosh in Burgess's article and also some later materials from the Open University. In Figure 3, a table from the Burgess article, one can see an analysis of the composition of the first and second year entries into the Open University programs. Although these occupational statistics are not Figure 3.

Occupation of Open University students

group	01	02	03	04	05	06	07	08	09	10	11	12	13	14
	%	%	%	%	%	%	%	%	%	%	%	%	%	%
applicants 1970	9.2	1.7	6.9	35.9	11.9	8.0	7.5	1.8	2.8*		8.2	3.4	2.5	0.1
applicants 1971	11.0	1.6	4.6	30.2	12.6	4.4	11.9	3.0	2.3	1.3	9.4	4.4	3.1	0.1
men 1971	0.1	1.6	4.3	19.8	8.0	4.3	11.1	3.0	2.2	1.2	5.3	3.8	2.2	0.1
women 1971	10.9	0	0.3	10.4	4.6	0.1	0.8	0	0.1	0.1	4.1	0.6	0.9	0
target quota set	11.0	1.7	4.6	30.2	12.6	4.4	11.9	3.1	2.3	1.3	9.4	4.4	3.1	0.2
allocations 1970	9.8	2.0	5.6	34.3	10.0	9.3	9.2	2.3	3.1*		8.1	3.7	2.5	0.1
allocations 1971	10.8	1.9	4.7	29.9	12.5	4.8	12.1	3.2	2.3	1.3	9.7	4.2	3.0	0.1
number of applicants 1971	3,763	577	1,572	10,327	4,283	1,486	4,084	1,017	772	476	3,224	1,514	1,066	61
number of allocations 1971	2,270	397	999	6,306	2,630	1,009	2,555	681	491	280	1,881	895	647	24

*groups 09 + 10

occupation group: 01 housewives; 02 armed forces; 03 administrators and managers; 04 teachers and lecturers; 05 the professions and the arts; 06 qualified scientists and engineers; 07 technical personnel: including data processing, draughtsmen and technicians; 08 electrical, electronic, metal and machines, engineering and allied trades; 09 farming, mining, construction and other manufacturing; 10 communications, and transport: air, sea, road, and rail; 11 clerical and office staff; 12 shopkeepers, sales, services, sport and recreation workers, fire brigade and police; 13 retired, independent means, not working (other than housewives), students; 14 in institutions (prison, chronic sick)

27. quoted in New Society, p 177.

directly correlated with socio-economic class, one can make some approximate judgments about the class composition of the OU student body. The circled statistics could be largely called the percentages of middle class students; the squared statistics could be called working class.

In 1970 there were 78.2% middle class to 17.2% working class by occupational group. In 1971, there were 74.8% middle class to 20.7% working class, an increase of 2.5% in working class composition. The largest single group in either year is the teacher corps -- 34.3% in 1970 and 29.9% in 1971. Perhaps the most interesting single statistic is the 9.8% in 1970 and the 10.8% in 1971 of housewives participating in the Open University. It is difficult to ascribe class implications to this particular statistic; although OU staff say that most of these housewives are usually quite "middle class" in appearance and manner.²⁸

The data on the applicants for the next entering class has not been completely analyzed and published as of this writing. But in July it was noted in the BBC/Open University Newsletter No. 11 that ".... it seems that earlier impressions of nearer equality between sexes and among the occupation categories have been continued and confirmed. The percentage of women looks to be 37%, compared with 33% last year; teachers have dropped from 31.6%²⁹ to 27.5%; technical and manual workers have increased as a percentage." The data indicate no new trends or changes.

Although the statistics overall do not provide a precise answer to one who asks about the class structure of the Open University, they do create a prima facie case for those who question the impact of the Open University in meaningfully enlarging equality of higher educational opportunity for those who have been most deprived of it and the other goods which society has to offer. This tentative conclusion must raise serious questions about the OU's policies.

28. The increase in numbers of housewives indicates that in the long run the Open University might become an important instrument of women's liberation. But first the Open University must itself (or by persuading local authorities arrange for others to) provide some child care services for the beleaguered mothers-students of Great Britain. If every mother could call on five hours of child care per week (which is half of the ten hours which each student is expected to commit to each course outside of tutorial and broadcast time), then the quality of mothers' performances, which is already surprisingly high (surprising because of time demands on mothers not because of their sex), would even be better. Of course not all female OU students are mothers, but a substantial proportion is.

29. This figure disagrees with the Burgess figure.

Dr. Perry justifies the unwillingness of the Open University to undertake active recruitment through a large scale advertising campaign and other means of information dissemination appropriate for working class audiences and the abstention of the University from offering remedial work for people who dropped out of educational programs well below university level on the grounds that the Open University must be credible first.³⁰ Credibility as a university takes priority over strategies which might open up greater educational opportunity.

I should indicate that I am sympathetic with Dr. Perry's pre-occupation with respectability and proof of quality of degree. The working class would not want an inferior credential. But when the supposed quality of the credential gets in the way of access to and perhaps even the quality of the education for the people for whom the institution was created, then the institution itself seems to be assuming a hypocritical position.

Another argument made on behalf of the Open University in this equality debate, this time by Dr. Carver of the London Region, is that the critics of the OU record misunderstand the role of the Open University in the universe of adult education in Great Britain. There was already a multitude of opportunities for sub-university work by adults on a part-time basis. What was needed and is now provided is a large scale provision of university level opportunity for adults. But what this argument misses is that if a university level institution is actually going to improve access to its own educational opportunity, it is not only going to have to drop formal barriers to its degree courses but also provide formal programs geared to help potential students prepare for university level work. The existing provision of adult education in Great Britain was not designed to serve this particular function; and in so far as it does so, this preparation is haphazard and not uniformly available. The experience of the City University of New York in its open admissions policy and its earlier SEEK program for preparing young people from disadvantaged backgrounds for university work testify in both accomplishments and problems to the importance of positive preparatory programs as an integral part of the "openness" of any open institution of higher education. What is true for younger students is doubly true for adults who have been away from formal educational programs. And Mrs. Carver, herself, in practice if not in argument, has admitted the importance of preparatory programs in an impressive and innovative program for the deaf, which, at her urging, the Open University has established to help prepare deaf students for formal enrollment. It should be noted that much of Dr. Carver's work has been financed by an outside grant and by her own commitment of time.

30. Report, p 49 and p 77.

The Open University has also cooperated with outside agencies in providing preparatory courses for work leading to the foundation courses. But the commitment of OU resources has been negligible. And this may account for the OU's negligible success in piercing the working class barrier.

The debate between the critics and the defenders of the Open University highlights the conflict between the goal of social equality and the traditional goals of the university. It is to this point that we must direct our attention. To do this analysis justice would require a much longer excursion into the complexities of the concepts of equality and the university than I can undertake here.

However, for purposes of this evaluation of the Open University certain assertions can be made about the concept of the university:

- 1) that advancement of knowledge through both research and teaching is involved in the concept;
- 2) that the needs of the students who come to the university have a viable claim on the activities and resources of the institution;
- 3) that the only appropriate criterion for entry into the university is the ability to do the standard of work required of students at that level of knowledge.

I assert these propositions, although the possible justifications have been rehearsed by others many times before. The relative weight of the first and the second and the force of the third are all unclear and deserve discussion and argument. But for present purposes I shall assume that all three assertions are bundled into our conception of the university and can lie happily together. The question then becomes one about the concept of equality.

In this debate equality can be construed as equality of opportunity -- in regard to the Open University, equality of access to entry. Equality of access as a criterion for admission would require that any restrictions be directly related to the character of the institution: indeed, one could argue that the only justifiable restriction would be the one encapsulated in the third assertion about the concept of the university.

But the concept of equality could also be that of equality of attainment. Then not only must access be open but all of those in the institution must reach an equal standard of achievement and position as the result of the institution's activities. No one in the present debate about the Open University holds this position, but it is sometimes argued by strong egalitarians in regard to education in general. And I believe this position has merits often denied it by its critics and overrated by its supporters. But it is clear that there could be contingent conflict

between this strong position and the first assertion about the university, because a program of equality of achievement may not be consistent with the advancement of knowledge, which may have as its condition the encouragement of those with the greatest ability to excel beyond any institutional median. Yet since neither supporters nor critics of the strong egalitarian position have been active in the Open University debate, I shall not explore in detail its ramifications.

If equality of opportunity is the operative conception of equality, it is rather difficult to see how it is consistent with the concept of the university. There is no theoretical inconsistency between this goal and the other appropriate goals and activities implicit in my assertions about the university; I would argue that it is a condition of them. However, the arguments are seldom about theoretical consistency; they are usually about strategies of implementing equality of higher educational opportunity. And that is what is at issue in the Open University debate.

Those who want a strong commitment of purpose and resources to the goal of equality of opportunity for higher education and who see this as the Open University's most important goal believe that active strategies of recruitment and new methods of support are necessary to make this goal operative. The removal of barriers is not enough. The Open University must undertake programs unusual for British universities in the form of remedial lessons for those with native ability but inadequate background and must actively seek these people out. Again, I must strongly reiterate, there is nothing inconsistent in this implementation policy with the essential character of a university. Preparatory programs for people sought out for entry to an institution in no way demean the standard required and validated at the exit from the organized activities of that institution. The only inconsistency in these programs may be with a traditional and superficial image of a university.

A final point about the relationship between equality and the university in the Open University debate must be made about the role which is assumed by and for the university in the mitigation of inequality in society. There are few who would argue that the universities in general or the Open University in particular will or could be a major instrument for social revolution. Certainly I would not make this argument; and I doubt that Burgess would. But although one does not make this claim for the Open University, it in no way weakens the argument for an institution of higher education whose most important purpose is to provide equality of access to higher education for the "workers" or "the underprivileged." And most certainly to withhold this claim is not to relieve the Open University of the purpose for which it was created. Just because the Open University and for that matter all universities cannot by themselves change the structure of inequality in

society, it is crucial that these institutions make their strongest possible effort at the one point where they can provide some force for change -- that is in access to their most important products: knowledge and learning. For it is only when this effort is made in each and every social institution that real mitigation of social inequality can be expected. So it seems quite fair to ask of the record of the Open University: how equal is the opportunity for access to your learning system? But, as we have seen, the answer is not clear.

Yet the impression which the impartial observer must have is that the Open University is overwhelmingly a middle class institution offering an opportunity for further education to those who have already reached a relatively high level of education, status, and economic position; as Burgess says: ".31. the Open University does best for those who have already battled." In its first two years the initial evidence is that the Open University has provided equality of opportunity for higher education to the middle classes and few others. However, since even at present British higher education is more the province of the upper middle classes, this small step is a large stride forward which deserves commendation.

But it must be clearly stated and recognized by both the Open University and those interested in it that, whatever the past intentions and future possibilities, at present the university is "open" only to a very limited constituency. This limited access may be directly traced to the preoccupation in the Open University with "credibility" and "respectability." One admirable goal has overridden the most important purpose and unique characteristic of the Open University as originally conceived. Only when the Open University outgrows its status-seeking will there be any possibility of fulfilling the original and invaluable purpose of the institution. The constraints of this preoccupation must provide an important lesson to the foreign observer. And the other important lessons of the Open University experience must now become our interest.

V. THE PROMISE OF THE OPEN UNIVERSITY

The promise of the Open University -- in spite of the problems I have identified -- is quite great in a variety of social and national contexts. The promise is that of the multi-media learning system with its combination of broadcast, correspondence and personal tuition; not that of the particular policies and institutional arrangements of the Open University. However, the promise is premised on particular

31. New Society, p.177.

conditions. And it is these conditions which we must clearly have in mind.

Dr. Perry, the Vice Chancellor, suggests the following criteria for the successful implementation of an Open University:

- i) a large enough pool of persons who are capable of higher education but were denied it after having had schooling at the secondary level;
- ii) a distribution network that is adequate -- including postal, radio and television services;
- iii) an adequate supply of qualified part-time teachers.³²

I do not believe that these criteria are necessary and sufficient conditions for the use of the multi-media learning system in all social, national, and institutional contexts. Therefore, I shall comment on each.

The first criterion -- the pool of under-educated adults -- is relevant only to the use of the system as a medium of adult education. However, even for this group and in the OU case, the assumption is that the system is satisfactory not only for a pool of undereducated adult, but also for the alternative audience of adults, who, for vocational and leisure interests, wish to improve present skills and acquire new knowledge; no assumption of under education is made here. Indeed, at a conference on mass higher education recently, Dr. Perry suggested an OU-type operation to provide continuing education for a "market" of a million adults.³³ But even if this is not a necessary criterion, it is one that is met by most developed as well as developing countries.

Other target groups could also benefit from a multi-media system delivered through an institution designed along the lines of the Open University: e.g., students of all age levels who are not comfortable in traditional, structured, and constrained learning environments; various vocational groups needing large scale inservice educational facilities -- especially lawyers and doctors; persons suffering from physical disabilities which affect their personal mobility at all age and learning levels; and all societies which suffer from the constraints of limited transportation facilities which restrict the possibilities of achieving the critical mass of population necessary for particular sorts of educational institutions -- such societies would range from many Latin American societies, through the desert settlements in Israel and other parts of the Middle East, to Southern California where the wrong sort of transportation system, that is freeways and autos, creates an impediment to communication.

³². Report, p.119

³³. The Times, 15 September, 1972.

The important point implicit in the first criterion is that this group -- undereducated adults -- should have first claim on the resources committed to open, multi-media institutions. Although I may want to quarrel with the detail of this point -- it may be more effective and equally consistent with an analysis of justice and equality to direct the resources to young children -- the general principle of helping those who have in the past suffered deprivation before making the facility generally available seems to me to be quite sound. And this very principle may now be in the process of erosion vis-a-vis the Open University; that is if it were ever operative.

Recently in response to the demands of the Tory Government, the Open University has agreed to undertake a five year project to experiment with the effectiveness of its multi-media learning system with 18 year olds who have been unable to find a place with a traditional university or polytechnic. This agreement has provoked an outcry from the educational left, because they view it as a dilution of the original goal of the Open University as an institution for adults before this goal has even been partially achieved. Also, critics suggest that the multi-media system may not be effective with immature students.

I believe that the threat to the original goal is very real in this new agreement. But the experiment does have real possibilities if the 18 year old population is selected according to the canon of helping those from deprived segments of society first. Because of the expense of the capitalization of the multi-media system, the optimal size of the Open University is quite large. Therefore, there appears to be room for expansion to as many as 70,000 without any loss of efficiency in economic terms.³⁴ Also, since it is expected that younger entrants would need more personal support, this change could occasion a reexamination of the tutorial and counselling system which might lead to its increased effectiveness. The crucial policy goal which must guide this experiment and any subsequent expansion must be to keep the already overly middle class character of the Institution from becoming even worse and to maintain the original goal of providing educational opportunity to segments of the population who have been systematically deprived of it in the past. Should this policy be kept in hand, the admission of 18 year olds neednot subvert the Open University in England or abroad.

The second criterion of a distribution network is quite important -- especially an efficient postal service, because this facility cannot be created just for the institution offering the multi-media learning opportunities. The other components of the distribution network -- which should include publishing as well as broadcasting facilities -- can be created especially for the educational organization; however, start-up costs will be much less if they are already available and can be drawn upon in stages.

34. see p.77 of the Vice Chancellor's Report.

It is important to understand that the reference to distribution network cannot be given content just in terms of physical facilities. The most important resource to have available is that of trained personnel: especially, trained broadcast personnel. The Open University itself would never have been created without the pool of talent available through the BBC. And the weakness of many of the OU broadcasts can probably be ascribed to the limited number of really talented and experienced broadcast people available to join in the endeavor in Great Britain, which required the training of a large number of producers without previous experience.

Although the existence of physical facilities and the availability of trained personnel is important as a first condition for the creation of an Open University, it must be expected that in the long run any such institution will itself have to develop its own distribution system, particularly its own broadcasting capability. In the medium term future of the Open University, one can expect it to outgrow the air time available through the BBC channel now used. Also, the optimum use of broadcast resources will require a major investment in new technologies -- especially videotape cartridges and cable television -- to create real time, on line responsiveness and delayed viewing flexibility which simple broadcasting resources do not presently provide.

The final criterion suggested by the Vice Chancellor -- an adequate supply of qualified part-time personnel -- is absolutely essential. But its composition in detail is not clear. What constitutes "qualified" depends very much upon the provision or lack thereof of inservice education and support for the part-time tutorial and counselling system. One could argue that existing talent pools in all developed countries and even many developing countries will be quite adequate for providing the substantive knowledge required in the tutorial component of the multi-media system. But it is quite clear from the Open University experience that the part-time system -- regardless of the paper qualifications of the tutors -- requires a sophisticated support apparatus in order to make this final criterion operative; a support apparatus which even the Open University lacks.

I would make a very strong argument on behalf of the appropriateness of the multi-media learning system, which is the theoretical and the practical framework of the Open University, for many different national and social contexts at most levels of education. However, the implementation of such a system in different countries and at different levels will undoubtedly require important changes in various components of the system which transcend changes in language and subject emphasis. In some situations, the emphasis may more appropriately be on the broadcasting medium instead of the publishing medium; or on the tutorial system instead of the correspondence system. But all open, multi-media systems, including the Open University, will benefit from the creation of

such institutions in differing social, national, and age contexts so that the experiences of each can enrich the others.

The important point to be understood by those who wish to establish open, multi-media, educational institutions in different social and age contexts is that the worst thing they could do is adopt the particular practices and programs of the Open University as unified, multi-media packages and then attempt to use them in very different learning environments. In spite of the export sales pressures of the Open University corporate salesmen, those who want to develop multi-media learning systems for different audiences must be very selective in what they adopt. Just because the promise of the multi-media learning system model of the Open University is so great, it is crucial that the limitations of the various components of the system as implemented in England be clearly recognized.

I have self-consciously talked about the possibilities of the multi-media system in open "institutions of education," because I believe that it holds promise for all levels of education. There is already talk of an "open school" in England. I would hope that the development of various permutations and combinations of open, multi-media, learning institutions might create new approaches to the whole range of educational problems which face modern and modernizing societies.

If open, multi-media, educational institutions are established, it is important that particular institutions not be allowed to establish monopolies within that particular society. The long run success of the Open University ought to be an argument for the creation of additional open institutions, even additional open universities, in England. There are economies of scale which demand relatively large multi-media institutions. The maximum size of the Open University has been calculated at from 50-70,000 students. But it is crucial that students who wish to use open institutions have some choice. This choice would involve totally alternative open systems. But where this is not possible there should be at least alternative social infrastructures -- e.g. tutorial and examining systems -- drawing upon various parts of a central broadcast and publishing utility. Over a period of years, as many different countries develop open institutions focusing on different age and socio-economic audiences, the programs may be exchanged and thereby create choice within various national systems.

CONCLUSION

The lesson which the Open University has to teach the rest of the world is the potential of multi-media learning systems servicing particular educational audiences in a flexible manner. The lesson is one of potential which has not yet been adequately tapped in the Open University: the potential of advanced educational technologies when provided with an adequate social infrastructure to mediate between the student and the technical hardware and software. It is a potential which can serve many purposes.

The challenge to the Open University and to "open" institutions elsewhere in the world is to be quite clear in judgments about what purposes these institutions ought to serve and then to be energetic in making sure that the technologies, infrastructures, and most importantly, traditional attitudes do not get in the way of this service. The purpose of mitigating social inequality in education deserves the highest priority in the design and development of these institutions both because of its value in itself and because of its neglect in the past. The potential of multi-media learning systems must be harnessed to the promise of making equality operative: a promise yet to be kept by the Open University; but even yet to be made elsewhere.

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