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ABSTRACT

This 10-section report on the activities of the Open University of the United Kingdom as an innovative institution with a concern for democratization of higher education begins with a discussion of the criteria for an innovative organization. The origins of the University and the intentions of its early planners are then discussed, followed by a description of development of objectives in the advisory and planning committee stages. Both the major academic programs (undergraduate, continuing education/associate student, and higher degree), as they have evolved since 1969, and related programs such as institutional evaluation and research, academic research, international activities and marketing are covered in section 4. Additional sections (1) describe the University's multimedia, distance teaching approach, including assessment and certification; (2) present information on the student population; (3) provide a resume of published information on the University's cost efficiency in comparison with others in Great Britain; and (4) present an overall evaluation of the institution's success, and the extent to which the system can be generalized elsewhere. A comprehensive bibliographic essay, reviewing the literature on the Open University concludes the report. A 5-page reference list, 10 figures, and 24 tables are included. (LMM)

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THE OPEN UNIVERSITY OF THE UNITED KINGDOM

An evaluation of an innovative experience in the democratisation of higher education

Greville Rumble

The Open University
Distance Education Research Group

May 1982

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CONTENTS

PREFACE

This paper has been prepared in response to a request from the Director of the Division of Higher Education and of Training of Educational Personnel at UNESCO (ref. circular ED/HEP/HE/631), for information on the activities of the Open University of the United Kingdom as an innovative institution with a concern for the democratisation of higher education.

Inevitably, a study of an institution as complex as the Open University, written by a single author, can never reflect all the facets of the organisation. Fortunately, there is now a large body of literature on the Open University, and I have included a short bibliographical essay which, it is hoped, can be followed up by those whose interests have not been met in the present work, or who wish to pursue the subject further. Even so, I am conscious that there are aspects of the University's development and system which I have dealt with only cursorily or not at all.

In the end, and in spite of my great debt to those whose work I have used or whose knowledge I have sought out in preparing this study, responsibility for the accuracy of the material and for the interpretations I have drawn must remain mine. I would, however, like to thank Ms Barbara Green who collected and collated much of the statistical information in advance of the publication of the 1981 edition of the University's Statistical Digest; Mr Peter Thornton-Pett, who painstakingly checked the draft for factual errors and lapses of grammar; and the many colleagues in the Administration and elsewhere who kindly answered specific queries.

Greville Rumble
The Open University

February 1982.

1 INTRODUCTION: THE INNOVATIVE NATURE OF THE OPEN UNIVERSITY

1. Of all innovations in higher education in the last ten to twenty years, the British Open University is perhaps the best known. It therefore seems fitting that it should be one of the institutions studied by the UNESCO project on the democratization of higher education.

2. The guidelines for the project make clear that democratization of higher education cannot be considered in isolation from the overall context of educational innovation and change. An innovative organisation is described as one which, by at least one major characteristic or a combination of them, notably differs from the traditional types of institution. Such establishments may, we are told, belong to any one of the following categories:

   (a) Those which enable a new and sizeable group of student population to enter higher education. The term "new student population" is understood to mean groups other than the traditional one composed of young people between the ages of 18 and 24, who have completed secondary education and are not employed.

   (b) Those which enable students to spend their period of study in a different, more flexible way than in conventional types of institutions, thus permitting parallel or part-time engagement in activities other than higher studies whether or not these activities are linked with their chosen field.

   (c) Those which maintain close ties with industrial enterprises, public services and other institutions using personnel with higher education.

   (d) Vocationally-oriented establishments which concentrate on practical courses to a greater or lesser degree and which award diplomas or certificates after providing short courses.

   (e) Those offering various possibilities to upgrade professional qualifications and/or providing refresher courses for those engaged in industrial or other professional activities.

   (f) Those making extensive use of new educational technology such as radio, television, telephone, computers, etc., so as to modify significantly the traditional pattern of organization or to reach new groups.

3. It seems clear that the British Open University does meet these criteria. The vast majority of its students are adults, many of whom would not be allowed to study at traditional institutions of higher education because they lack the normal academic requirements for entry while many others, even if qualified, could not do so because of the constraints of time and place imposed by traditional educational institutions, besides the financial problems that stem from family or similar commitments that most of them will have. The Open University teaches at a distance, using a combination of correspondence teaching and the new educational technology to provide students with flexibility to study in their own homes and, to some extent (within the limits imposed by particular systems), at their own pace.

4. It is less clear that the Open University is providing vocational or professionally orientated refresher courses - although some of its courses can be described in these terms (see paragraphs 63 to 71). Nor is it as a matter of course closely allied with industrial, public service or other enterprises, although such ties do exist. Nevertheless, the British Open University clearly is an innovative organization, as defined in paragraph 2 above.

5. The rest of this paper (sections 2 to 9) is laid out according to the following scheme. Figures in brackets are those of the paragraphs concerned.

Section 2 (10-25)
This section describes the origins of the University, and the intentions of its early planners.

Section 3 (26-38)
This section describes the development of the University's objectives in the Advisory and Planning Committee stages.

Section 4 (39-117)
This section describes the major academic programmes (undergraduate, continuing education/associate student, and higher degree), as they have evolved since 1969 (41-87). Related programes, such as academic research, institutional evaluation and research, international activities, and marketing, are also covered (88-117).

Section 5 (118-165)
The University's multi-media distance-teaching approach is described, with a brief note (152-160) on assessment and certification.

Section 6 (166-228)
This section contains information on the student population. The following aspects are considered:

(a) The main, administratively-based procedural aspects which determine student progress within the University (166-171);

(b) Demand for the three academic programmes listed above (172-179);

(c) Discussion of student fees and financial hardship as a deterrent to demand (180-188);

(d) The main characteristics of the student population, as follows: Undergraduate (189-198), associate (199-203), and higher degree (204-205);

(e) Student progress and drop-out: Undergraduate (206-221), associate (222-223), and higher degree (224-225)

(f) The status of Open University graduates (226 - 228)

6. The functions undertaken by distance teaching systems are rather different from those that obtain in conventional educational systems. At the same time, the founders of the University recognised the virtue of having a governmental and decision-making structure that mirrored, as far as could be possible, that found in traditional British universities. Section 7 (paragraphs 229-284) discusses the University's organisational, decision-making, and participative structures.

7. A particular concern, at least outside of the Open University, has been its relative cost-efficiency in comparison with others in Britain. Section 8 (paragraphs 285-294) provides a resume of published information on this aspect.

8. Section 9 (paragraphs 295-312) attempts an overall evaluation of the institution's success, and the extent to which the British Open University system can be generalised elsewhere.

9. Finally, the concluding Section 10 (paragraphs 313-325) provides a brief bibliographical essay on sources about the whole subject.

EARLY HISTORY: THE PERIOD PRIOR TO THE AUTUMN OF 1963

10. On 8 September 1963 the then Labour Party Opposition Leader, Harold Wilson, announced that his party was making plans for a "University of the Air" which would offer correspondence courses. He envisaged an educational trust that would bring together representatives of the universities, broadcasting organisations, publishers, public and private bodies. The origins of his proposals lay in his perception (for the proposal was at this stage Wilson's own, and not the Labour Party's) that broadcasting could be used both to alleviate pressure on the educational system (as reflected in the increasing demand for places then being experienced); to improve industrial and technological training; and to prevent the wastage of talent arising from unequal educational opportunities.

11. The increasing demand for places in higher education arose firstly as a result of the increase in births towards the end of the Second World War and after it had ended, resulting in a massive increase in eighteen year olds in the early 1960s; and secondly, from the increase in the proportion of school leavers obtaining good school leaving qualifications and wishing to go on to higher education. These pressures were reflected in the Robbins Report (1963), which proposed that demand in this sector was to be met by an increase in the number and size of conventional universities.

12. Another factor was the need to improve industrial training facilities and adjust occupational training more closely to future demands for skills, a point made by the 1959 Report on Scientific and Engineering Manpower in Great Britain (The Zuckerman Report, 1959).

13. However, there was an increasing awareness that the existing educational system was elitist and that, as a direct result, there were many adults whose abilities were not as fully used as they might be. This concern was reflected in, for example, the 1959 Crowther Committee Report, in the Robbins Report, and in an influential book by Jackson and Marsden (1962). At the same time, there was a growing recognition that the existing provision for the education of adults was deficient: firstly, in the lack of opportunities available to adults who wished to embark on vocational courses at the higher educational level; and secondly, in the failure of existing providers of adult education courses to attract those whose initial education had been underprivileged and deprived (Perry, 1976: 2-4). There were, admittedly, exceptions to the general rule. The University of London offered external degrees - but it was a system of examination only, and adults had to make their own arrangements for tuition. University extra-mural departments, where they existed, were created primarily to extend the cultural influence of the universities to the adult population in their immediate locality, and their clientele were primarily middle class. This was also true of the Workers' Educational Association, whose courses were primarily non-vocational. Moreover, in the climate of the 1960s, it seemed unlikely that conventional universities would have extended their activities to cater for adults on a part-time basis - although the Robbins Committee Report had urged them, as short term measures, to offer first degree courses in the evenings and to establish correspondence courses.

14. In this respect, Britain lagged behind a number of countries. Universities in the United States, Australia, Canada, the USSR and elsewhere had instituted correspondence based external studies programmes, and Harold Wilson was later to say that it was his observation of American and Russian developments that first led him to propose the establishment of a University of the Air (Wilson, 1969).

15. It is debatable whether Wilson's imagination would have been so fired if the ideas thus triggered had been restricted to the use of correspondence teaching methods. However, by the early 1960s there was a growing appreciation of the potential value of educational broadcasting - and particularly of the use of television. Matters were particularly well advanced in America, and Wilson was aware of these through his contacts with Senator Benton, owner of the Encyclopaedia Britannica, who at that time invited Wilson to make a regular annual lecture tour of the United States (Hall et al., 1975: 245-7).

16. In parallel with Wilson's growing interest, others were also being attracted to the possibilities of educational broadcasting. The period coincided with a number of developments in the media (particularly the increased availability of timebands, improved coverage and quality of service, and the growth in the number of radio and television sets in use). The BBC had a long history of commitment to educational broadcasting. There was considerable interest in its television aspects, which centred around the work of the Pilkington Committee (1962). Although the latter rejected proposals for an educational television channel, a number of people were pressing for the increased use of television in support of tertiary level education. Professor Sir George Catlin suggested a 'University of the Air' in 1960 (Catlin, 1960). R.C.G. Williams, Chairman of the Electronics and Communications Section of the Institute of Electrical Engineers, pressed for the establishment of a 'Televarsity' (Williams, 1962a and 1962b). And Michael Young and Brian Jackson, Chairman and Director respectively of the Advisory Centre for Education, saw an 'Open University' as a means of increasing participation rates in higher education. They decided to test their ideas through a study of correspondence education; a week of televised lectures by Cambridge University academics ('The Dawn University' project) and the launching of a pilot body known as the National Extension College (which still operates) to begin combining correspondence and television with residential schooling (Hall et al., 1975: 239-40, 243-5).

17. Nevertheless, it is unlikely that these ideas would have progressed, particularly in the light of later widespread scepticism about the Open University project (Perry, 1976: 27-8), if the ideas involved had not been taken up by Wilson. As a result, 'the often prolonged process of persuading authorities to accept a fairly radical innovation was foreshortened' (Hall et al., 1975: 24).

FROM THE AUTUMN OF 1963 TO SEPTEMBER 1967

18. The creation of the Open University gained great impetus from the victory of the Labour Party in the general election of October 1964. The idea of a 'University of the Air' was clearly used to provide electoral capital in both October 1964 and subsequently in the 1966 General Election. Thus Wilson first expanded the idea at the rally to mark the launching of the Labour Party's pre-election campaign in Scotland (8 September 1963) and again in a speech entitled 'Labour and the Scientific Revolution' given a few weeks later at the Labour Party Conference. Wilson himself described the idea as 'inchoate'. It was not official Labour Party policy. Just what kind of institution was to be established was not clear. Wilson himself referred to an 'educational trust' which would link broadcasts and educators, although exactly how this would operate was not spelt out.

Nevertheless, the purpose of the University of the Air was clear even at this stage - to provide a variety of courses mainly leading to recognised qualifications and examinations. Then, in February 1965, Wilson asked Miss Jennie Lee to take over special responsibility as Secretary of State for the Arts within the Department of Education and Science (DES), and to steer the University of the Air project through. Lee's appointment was vital.

She was to prove a powerful advocate of the project in the face of continuing attacks. She overcame civil service opposition within the DES - although it is notable that the project was considered largely in isolation from policy in other higher education sectors. Lee (unusually for a Minister) chaired the 1965 Advisory Committee on the University of the Air. Moreover, the Advisory Committee's terms of reference, by referring to Wilson's 8 September 1963 speech, made it clear that the policy decision had already been taken. They were to concentrate on ways and means, not on whether it was a good or bad idea. Also, and unusually, the Advisory Committee's members did not represent interests: they were basically appointed in an individual capacity.

19. The Advisory Committee Report (1966) emphasised the importance of achieving academic standards comparable with those in UK conventional universities. The role of the media, particularly television was emphasized, but the University's structure was to be as close as possible to those of traditional universities. The idea of an 'educational trust' put forward by Wilson in 1963 had disappeared. Degree courses would be of a professional, technical, refresher and conversion nature.

20. Reactions to the White Paper were on the whole unfavourable. Nevertheless, the basic framework for the institution was now laid down. Three features should be noted in particular. Firstly, the idea was being developed "entirely separate from educational policy-making in general"; secondly, "the extent and nature of expert opinion brought to bear at this stage was carefully controlled"; and thirdly, "before any advice from interested individuals was sought, it had been decided that the new institution would be nothing less than a degree-awarding body" (Hall et al., 1975: 259).

21. Between February 1966 and September 1967 progress was slow and precise details of the scheme's development are difficult to trace. During the early part of this period the term Open University replaced that of University of the Air. Discussions took place between the DES, the Treasury, the BBC and the Post Office, and various alternative costings were prepared. Nevertheless, other issues dominated the Government - particularly the economic situation which did not favour progress on cost-intensive projects. Particular concern centred on the costs of the broadcast element and the delicate nature of detailed discussions with the BBC (which by March 1966 has agreed in principle to act as agent for the Open University). It is difficult to know when the project finally gained Government approval - but the appointment of a Planning Committee signalled their commitment to the project. Once again, it was Lee's drive that pushed the whole project through. To do this she used 'skill and single-mindedness' and achieved a 'productive working environment', in the face of hostility, by 'detaching herself and her advisers and by maintaining direct contact with the Prime Minister (Wilson)' (Hall et al., 1975: 264). Certainly, Wilson's backing was a vital ingredient in her success. However, the policy of detachment through the exclusion of wider discussion on the proposals, helped to build up considerable ill-feeling on the part of certain interested groups and this was to persist into the future. Particularly suspicious of the proposed University were various adult education agencies, the Local Educational Authorities, and the National Extension College (Hall et al., 1975: 266-7).

22. Hall et al. (1975: 265) suggest that Lee constrained the University's development by refusing 'to compromise on her vision of the new institution, adhering to the view that it should have the highest academic status; providing degrees, being staffed by University teachers and being termed a University'. However, the University's first Vice-Chancellor, Lord Perry, argues that Lee's attitude was right: 'Had she given way, had she attempted to start with a scheme offering education through the media to adults, at school or pre-university level, I think the concept would have disappeared' (Perry, 1976: 24). In any case, with the benefit of greater hindsight, one can say that the development of non-degree programmes was postponed rather than dropped.

FROM SEPTEMBER 1967 TO JANUARY 1969

23. By the autumn of 1967, the most important decisions concerning the Open University had already been taken. However, many detailed aspects had still to be settled. To do this, a Planning Committee was appointed in September 1967 by the Secretary of State for Education, under the Chairmanship of Sir Peter Venables, the distinguished Vice-Chancellor of Aston University. The membership of this Committee (which included some who were sceptical of the proposal) did much to endow the project with academic respectability. The Committee was asked to build on the ideas contained in the Advisory Committee Report - a strategy which ensured that their ideas were safeguarded. However, the project was not wholly safe. Lee fixed the starting date for January 1971 - which would be before the May 1971 date by which the Labour Government had to go to the country in a General Election. This 'indicates the extent to which the project was still a party political issue' (Hall et al., 1975: 270).

24. The Planning Committee Report of January 1969 clarified certain aspects - particularly in respect of aims and organisation. The University was to concentrate on adult students, offering opportunities for degrees at general and honours levels. Also, it was to be open. No formal educational qualifications were to be required of applicants who (subject to quotas) would be admitted on a 'first come, first served' basis. However, there were those who voiced their concern that the Planning Committee had not given enough consideration to educationally disadvantaged groups. The Director of the National Extension College wrote in The Times (25 November 1969): "I fear that we are in considerable danger of creating yet another university institution for the middle-class, and especially for that middle-class housewife seeking a liberal arts course; ..... if (the Open University) is centrally to reconnect adult education with a major working-class audience ..... then it must go and get them".

25. In spite of these doubts, the Government accepted the Planning Committee's Report - and the University received its Royal Charter on 23 July 1969.

3 THE DEVELOPMENT OF THE OPEN UNIVERSITY'S OBJECTIVES, 1963-1969

FORMAL OBJECTIVES

26. The previous section discussed the development of the proposal for an Open University from 1963 through to the acceptance of the Planning Committee Report in January 1969. It indicated the key role of political decision makers (Wilson, Lee) in the development of the idea and in its implementation; the factors (population trends, technological change, and increases in expectations) which made the idea opportune; and the way in which opposition to the project was effectively muzzled by a process of consciously not involving such groups in the work of the Advisory Committee.

27. This section looks at the development of ideas about the objectives of the Open University. Very few higher educational reforms have achieved their original objectives fully. In most cases one can only speak of partial achievements, sometimes even of a dissolution of initial aims or of their distortion or abandonment.

28. Wilson's 1963 speeches envisaged an 'educational trust' or consortium using correspondence and broadcast teaching materials to cater for "a wide variety of potential students". He referred to particular groups:

> There are technicians and technologists who perhaps left school at 16 or 17 and who, after two or three years in industry, feel that they could qualify as graduate scientists or technologists. There are many others, perhaps in clerical occupations, who would like to acquire new skills and qualifications. There are many at all levels in industry who would desire to become qualified in their own or other fields, including those who had no facilities for taking GCE at O or A level, or other required qualifications, or housewives who might like to secure qualifications in English literature or geography or history whose motivations would vary from a desire for career-related qualifications to those who wished to study for non-vocational reasons (for example, to learn a foreign language preparatory to holidaying abroad).

29. The Advisory Committee (1966) felt the University would serve three purposes:

> it will contribute to the improvement of educational, cultural and professional standards generally, by making available to all who care to look and listen, scholarship of a high order. Secondly, a minority of those showing general interest will want to accept the full disciplines of study and make use of all the facilities offered ... Thirdly, it will have much to contribute to students in many other parts of the world as well as those studying in the United Kingdom.

30. It also emphasised academic standards: "it must be made clear that there can be no question of offering to students a make-shift project, inferior in quality to other universities". It would primarily offer degree courses which would include "subjects of contemporary social, industrial and commercial importance; basic subjects like English, Mathematics and the foundations of science; and a range of cultural subjects". It was anticipted that science and technology courses would be more difficult to provide. Professional, technical, refresher and conversion courses would also be offered. Open admission, irrespective of academic qualifications, was accepted as a basic principle. The Labour Party Manifesto for the March 1966 General Election made great play of this fact - stating that the University would mean "genuine equality of opportunity for millions of people for the first time". Finally, study which would be part-time could be combined with full-time employment.

31. The Planning Committee (1969) summarises the aims of the University as being:

> to provide opportunities at both undergraduate and postgraduate level, of higher education to all those who, for any reason, have been or are being precluded from achieving their aims through an existing institution of higher education.

32. This was taken to include:

(a) those previously deprived of higher education through lack of opportunities rather than lack of ability;

(b) those qualified school leavers who, despite post-Robbins expansion of conventional universities, could not gain a place in such universities;

(c) those who had left school early (without gaining normal academic requirements) but who later realised they wanted or needed higher education;

(d) the many thousands of certificated non-graduate teachers who would wish to acquire graduate status;

(e) other significant groups of professional students interested in the University's courses;

(f) the university's "unrivalled opportunity to rectify" the "long-continuing imbalance" in the number of women in further and higher education.

33. However, persons aged under 21 were not to be allowed to register (see paragraph 175 below). This policy meant that the University would not be in competition with other institutions for students of eighteen.

34. Social class was not referred to directly. However, referring to the "backlog" of adults deprived of opportunities in the past, it did observe that:

> The University will provide first and higher degree courses for such adult students, but its work would not cease if the problem of past deficiencies were adequately dealt with. Social inequalities will not suddenly vanish, nor will all individuals suddenly mature at the same age in the same environment. The recent book "All our Future" by J. W. B. Douglas et al., provides timely evidence in this regard of the large number of boys and girls who have the ability to become scientists but who leave school every year at the age of fifteen.

This suggested acceptance of the view that differences in educational opportunities are rooted in social inequalities.

35. The University's Charter (1969) specified the objects of the University as being "the advancement and dissemination of learning and knowledge by teaching and research .... to provide education of university and professional standards for its students and to promote the educational well-being of the community generally".

36. The Planning Committee Report made a number of detailed proposals with regard to the University's degree structure. Woodley (1981 : 15-17) summarises these proposals as follows:

(a) The degree would be a "general degree" in the sense that it would embrace studies over a wide range of subjects.

(b) Students would be allowed a great deal of choice from among the courses offered.

(c) No formal academic qualifications would be required for registration as a student.

(d) "Foundation Courses" would be offered in Mathematics, Understanding Science, Literature and Culture, and Understanding Society (a fifth course might be added later)*. These courses would be as intellectually demanding as any normal first year university course but they would also have to be appropriate for students with limited educational experience. (* A fifth foundation course, in Technology, was indeed added in 1972.)

(e) The degree would be obtained by the accumulation of "credits" in individual courses, which would last for one academic year. Each foundation course would count as one credit and all students would normally be required to obtain two such credits in foundation courses before proceeding to further study.

(f) The foundation courses were seen as representing "lines" of study. The subsequent programme of study would be based on the breakdown of each line into a number of components. There would be about four in each line and each component would be made the subject of two courses, the second being more advanced than the first. This gave a total of some thirty-six courses, or forty-five if a fifth line of study was added.

(g) Six credits would be required for an Ordinary Degree and eight credits for an Honours Degree.

(h) Credits could be acquired over any number of years of study, which need not be continuous. Exceptional students could therefore, on this basis, complete their degree in three years of study, but four should be more normal and five the median period in practice.

(i) A student's success would be determined by a combination of continuous assessment and final examination. In accordance with normal university practice, external examiners would be appointed for the final examinations of each course to ensure that proper academic standards were maintained.

(j) A note was made of the pressing need for degree courses for practising certified teachers and proposals concerning this would be made later.

37. In the post-graduate area, the Committee stressed the need for "post-experience' courses of an "updating" or "refresher" nature for those who are called to make a significant change in their activities. Post-graduate courses leading to a higher degree might also be developed at a later stage. In passing, it should be noted that the Committee's assignment of "post-experience" courses to the post-graduate programme never materialised. The latter area was, from the start, concerned only with higher degrees, while the post-experience courses became a programme in their own right, as described in paragraphs 58 to 80.

INFORMAL OBJECTIVES

38. As mentioned in paragraph 30, the Labour Party's 1966 Manifesto said that the Open University would mean "genuine equality of opportunity to millions of people for the first time". Many people felt that this had to imply greater participation by persons from groups traditionally under-represented in higher education - and particularly from the working class. In 1962 Jackson and Masden in their book Education and the Working Class said that "the concept of the Open University entails a large new working class intake" (1962 : 229). In 1969, as we saw in paragraph 24, Jackson (in his capacity as Director of the National Extension College) was warning that the University was likely to be "yet another university institution for the middle-class". But Jennie Lee, in 1971, rounded on such critics: "It is not a working class university. It was never intended to be a working class university. It was planned as a university. It is an Open University". (OU Admissions Committee paper AD/47/8 quoting Lee at a public meeting in Cardiff, June 1971). She made it clear that she was in favour of working class students, but argued that "the last thing we wanted was a proletarian ghetto" (Lee interviewed in the Open University (1979a) The First Ten Years). The Planning Committee itself never specified in detail the kind of target audience which the University was to aim at. This was left to the University to decide.

4 THE DEVELOPMENT OF THE OPEN UNIVERSITY'S OBJECTIVES THROUGH ITS ACADEMIC PROGRAMMES, 1970 - 1981

INTRODUCTION

39. While the charter has remained the formal basis for the University's objectives and activities, developments in its policy over the last decade can be examined in terms of changes to its objectives; strategies; and quantitative targets as these relate to both inputs and outputs.

40. The 1976 University Plan began to talk in terms of various academic programmes - and it is most convenient to discuss the institution's development in these terms since they are generally regarded as the focal points around which its development is centred. The main programmes are listed below:

(a) the Undergraduate Programme. Students registered in this are normally assumed to be studying for the Bachelor of Arts degree, which is offered at general or at honours levels.

(b) the Continuing Education Programme. In this programme, Associate Students (as they are called) take a variety of Post-experience and Community Education courses, either singly, or in a stipulated conjunction with each other for a Diploma. As well as the latter, qualifications include various Course Certificates and Letters of Course Completion (see paragraph 223). Some of the courses are specially written, while others are derived from the post-foundation levels of the undergraduate programme. There is one Diploma at present (in Reading Development), but more are planned.

(c) the Higher Degree Programme. Most students in this programme are registered part-time for one of the University's three research degrees of Bachelor of Philosophy, Master of Philosophy or Doctor of Philosophy. There are some full-time research students as well. The University currently plans to offer a BPhil by course work, and other "taught" higher degrees are being considered.

(d) the Research Programme.

(e) the Institutional Research and Development Programme.

(f) International activities programme.

(g) Marketing of University materials (since 1976 the responsibility of a separate company, Open University Educational Enterprises Ltd.).

THE UNDERGRADUATE PROGRAMME

41. The University's undergraduate programme was the first to develop. From the start, it was deemed necessary that it should set out to offer a degree programme as quickly as possible, if only to counteract the suggestion that it was not a 'proper' university. The question was - what kind of degree should it offer?

42. One of the most crucial decisions taken by the University was not to develop specialist first degrees. It recognised from the start that its first year (foundation) courses would have to meet the needs of students who did not necessarily have any prior educational qualifications. As a direct result, it decided that its initial undergraduate courses should be multidisciplinary in scope within certain specified 'lines of study' (see paragraph 36). These courses would help to reintroduce adults to serious study, and to familiarise them with some of the concepts and methodologies associated with each discipline. On the other hand, the foundation courses had to be of recognisable university standard and appeal to students with varied educational backgrounds. The University, though producing some preparatory or refresher booklets in science and mathematics, decided not to offer any preparatory courses as such on the grounds that to do so would undermine its status qua university, and be tantamount to an admission that the 'open entry' policy was untenable (Perry, 1976: 58).

43. The structure of the degree itself is based on the notion of a credit. Courses are rated as being full-credit or half-credit courses. Both are taught over 32 to 34 weeks (originally 36 weeks), with the full-credit course requiring from 12 to 15 hours work per week on the part of the student, and a half-credit course one half this amount. In line with the concept of a general degree the University, after some debate, decided to offer only one title, Bachelor of Arts (BA) at ordinary and honours levels. The BA (Honours) degree is classified in four levels - first class, upper second class, lower second class and third class, these classifications reflecting the overall quality of the students' work. There is a quantitative distinction between the BA (Honours) degree, which is awarded on the basis of 8 credits, and the BA degree which is unclassified and is awarded to students who have gained 6 credits, irrespective of the quality of their work above a minimum (and appropriate) pass mark.

44. There was great pressure, at least in the early days, for the University to offer specialist honours degrees which would attract professional recognition. The Lord Chancellor's Office proposed that the University offer a Law degree, and there was some pressure for it to institute a Bachelor of Commerce degree. However, by the time these proposals were made, the University had already embarked on its existing 'lines of studies' centred on the six faculties of Arts, Educational Studies, Mathematics, Science, Social Sciences and Technology. Resources available were fully committed in these fields, and the University's proposals that these other areas be developed in the 1974-6 triennial planning period did not find favour with the Department of Education and Science.

45. At an early stage, the University defined its courses in terms of levels - foundation, second, third and fourth level courses. While the foundation courses were all interdisciplinary in nature, the various faculties evolved different approaches towards those at second and higher levels. The University itself decided that students would have to gain a minimum of two credits at either third or fourth levels if they were to be eligible for an honours degree (whereas the BA degree could be obtained on the basis of foundation and second level courses only). It also required that a student had to gain a pass at foundation level before he went on to second level courses; there were similar provisions in regard to proceeding to third, and then to fourth, level, but these have now been dropped. Finally, it was laid down that students should normally take two foundation courses, and this requirement still holds.

46. Within this overall structure, the Arts Faculty decided that its second level courses would in general be interdisciplinary, with specialist discipline-based courses at third and fourth levels. The Faculty of Social Sciences was more closely concerned with the question of professional recognition, particularly in Psychology. Accordingly, in this faculty, specialist discipline based courses developed from second level on. The Faculty of Educational Studies was initially and primarily concerned with the training needs of the large number of non-graduate certificated teachers who entered the University. It did not offer a foundation course itself. The Faculty of Technology decided that specialised honours degrees in engineering would be beyond the capabilities of the Open University system and that, accordingly, its graduates should be trained in the broad area of engineering science rather than in any particular branch. Mathematics, too, aimed to teach a broad understanding of the nature of mathematics rather than particular applications of the discipline. In Science, however, there was from the start a much more clearcut discipline-based approach to the development of the Faculty's curriculum and courses.

47. Disiplines currently recognised within the University for academic purposes are listed in Table 1 below. Broadly speaking there has been little change since the original structure emerged in 1970/71.

Table 1. Recognised disciplines within the Open University

Faculty	Disciplines
ARTS*	Literature, Philosophy, History, Fine Arts, Music, History of Science.
EDUCATIONAL STUDIES	Psychology of Education, Sociology of Education, Curriculum Planning, Educational Administration.
MATHEMATICS**	Pure Mathematics, Applied Mathematics, Computer Science, Statistics, Maths Education.
SCIENCE	Physics, Chemistry, Earth Sciences, Biology.
SOCIAL SCIENCES	Psychology, Sociology, Government, Economics, Geography.
TECHNOLOGY	Electronics, Materials Science, Design, Systems, Engineering Mechanics.

* plus some coverage of Religious Studies and Classics.
** defined as 'interest groups' rather than disciplines.

48. Linked to the question of disciplines, was that of how many courses the University could afford to present at any one time. The Advisory Committee had suggested that the 'University of the Air' might be able to offer about 20 courses in all in 10 subject areas (including languages - which, however, soon disappeared). The Planning Committee suggested that 36 courses might be offered in four 'lines of study' (Arts, Social Sciences, Science, and Mathematics and Technology). By the time the first staff of the University were being appointed, 17 disciplines had been identified within those 4 lines of study, and recruitment was geared towards their needs. At this early stage, Technology was accorded the status of a separate 'line of study', and Educational Studies was brought in to respond to pressure from those interest groups that were urging the provision of professionally orientated opportunities for non-graduate teachers. As a result a further 9 disciplines were added to the totals and an early academic plan prepared which proposed that the University should offer a total of 75 credits worth of courses as follows:

5 foundation courses
18 full credit courses at second level (3 for each line of study)
52 full credit courses at third and fourth levels (two for each of the twenty six disciplines).

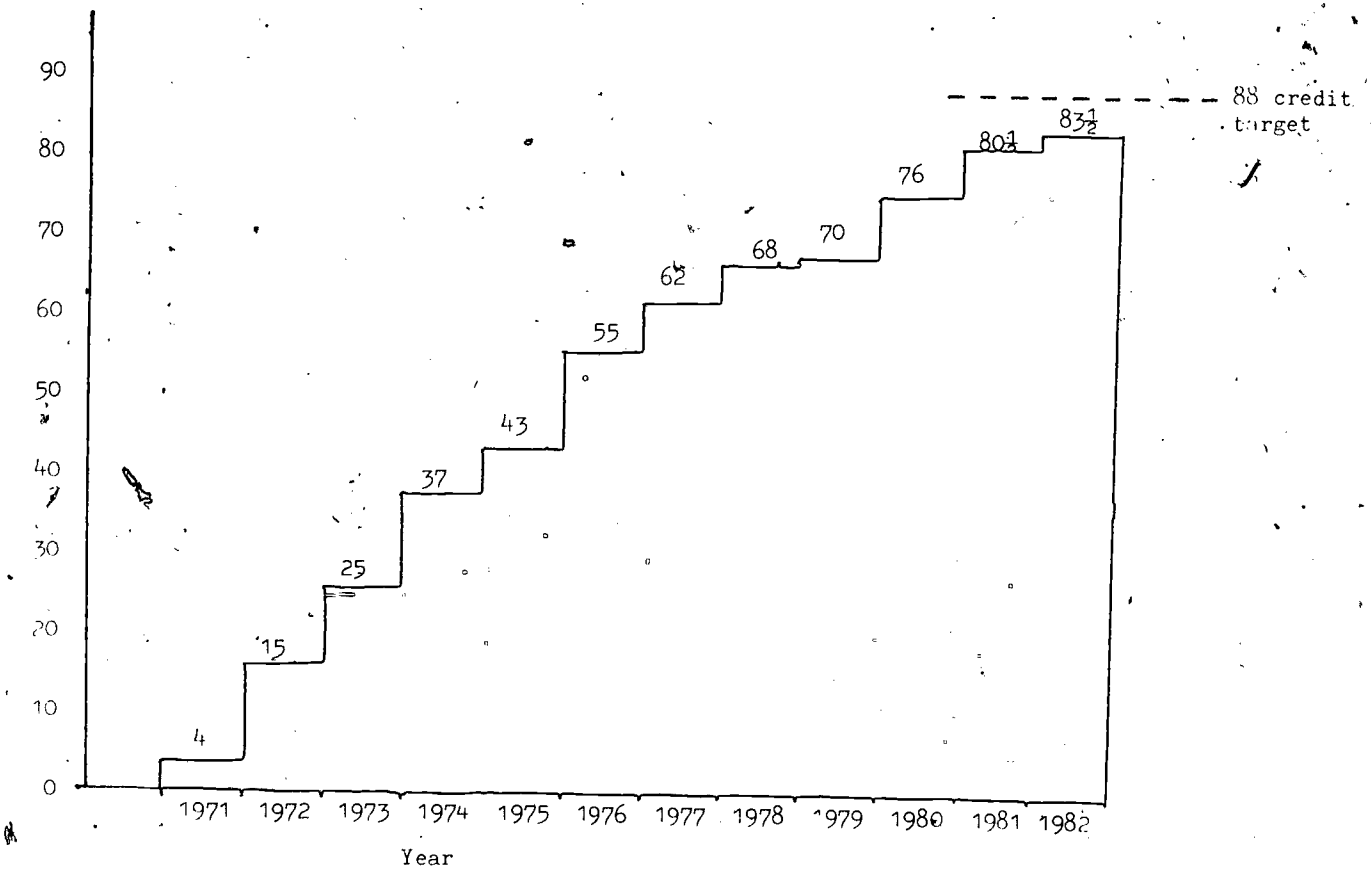
49. The first four foundation courses were presented in 1971. In 1972 the first second-level courses were presented (plus the first Technology foundation course) and, as the University developed, and the faculties began to plan their courses for 1973 and 1974, so pressure arose to increase the University's academic profile. A review of the latter in 1971/2 led the University to propose an expanded undergraduate profile of 111 credits to meet student demand and 'to provide a viable range of courses in particular academic areas'. Even so, it was said, this increase would require honours students "to draw their post-foundation courses from a minimum of two (and probably three) disciplines" (Triennial Submission for 1974-1976).

50. Within a very short space of time, however, the 111 credits plan was challenged as it became clear that academic staffing levels would be insufficient, given existing production rates, to both maintain the ever expanding number of courses on offer (see Figure 1) and at the same time develop new courses in sufficient numbers to meet the target. It was also suggested that the 111 credit target was an attempt to evade one of the basic purposes of the Open University 'to provide a more general education ..... in order to try to provide an honours degree of the classical specialised kind' and that 'We were in danger of abandoning something we could do very well for something we could do only poorly, if at all' (Perry, 1976 : 74). A revised academic programme was therefore developed which proposed an 87 credit profile, subsequently amended to 88 credits, which are apportioned between the six faculties as shown in Table 2. The principle of a generalised interdisciplinary approach was reinforced by allocating 4 credits to the 'University' to develop multi-faculty multi-disciplinary, courses, and by the requirement placed on faculties to develop a varying proportion of courses which would explore subjects of fairly wide general interest.

Table 2 Number of credits apportioned to each faculty

Arts	Educational Studies	Mathematics	Science	Social Science	Technology	University ('U'Courses)
17	10	10	15	17	15	4

FIGURE -1 : THE OPEN UNIVERSITY UNDERGRADUATE COURSE PRESENTATION.
NUMBER OF CREDITS PRESENTED EACH YEAR, 1971 - 1982



51. From its inception the University imposed very few restrictions on students' choice of course. Those who objected to this policy argued that some students would pass a miscellaneous "rag-bag" of courses to obtain a second rate degree lacking internal coherence. However, the University's attitude was that the adult is the best judge of what he should learn, and that he should be given maximum freedom of course choice (Perry, 1976: 61). This freedom was subject to very few restrictions, and students were from the very beginning able to register on courses from any one of the University's six faculties. Initially the University also designated some courses as required pre-requisites for other usually higher level courses, but this policy was later relaxed with courses being designated as 'recommended' rather than obligatory pre-requisites. Finally a few courses are designated 'excluded combinations' if they significantly overlap in their academic content.

52. Within this general framework however, the University has sought to achieve professional recognition for its graduates or those who have acquired a number of Open University course credits. Thus Open University graduates are eligible for entry to one year postgraduate courses for teacher training, while a number of graduates have entered full-time and part-time higher education courses at other institutions. OU graduates are in some cases (depending on their choice of courses) exempted from some of the requirements laid down by other institutions; they may be eligible for shortened programmes of study, or be given advanced standing in others. Students with specified course credits are eligible for graduate membership of the British Psychological Society. The overall picture is one of cautious but widening acceptance of Open University qualifications.

53. The University itself was committed from the start to a policy whereby a student's existing qualifications, or past study, might be recognised as exempting him or her from some of the requirements of the Univerity's own degree. At the time there was no system in the United Kingdom whereby credit transfer or advanced standing was recognised as a right - and indeed this is still the case in general. The Open University, by accepting credit transfer and giving students with appropriate qualifications advanced standing towards its own degree, found itself in the forefront of educational innovation within the United Kingdom. Indeed Perry (1976: 153) makes it clear that the Open University was "determined to act as a catalyst for credit transfer in Britain". However, "while the Open University was still proving itself, it was manifestly hopeless to expect to do this by securing agreements with individual institutions for the mutual recognition of credit ... (it had) to act unilaterally in awarding credit to (its) students" (Perry 1976:153).

54. Accordingly the University introduced a policy of General Credit Exemption, whereby the number of Open University credits a student was required to take for a degree could be reduced in recognition of previous studies at the higher educational level. General Credit Exemptions were awarded on the basis of one credit per full year of study (or equivalent) at tertiary level, subject to a maximum of two but soon (late in 1971) raised to three. The initial task of evaluating and deciding on the level of award to be made in respect of particular qualifications was enormous. In 1971, the University's first teaching year, about one in two of the 25,000 initially registered students applied for credit exemptions. Table 3 provides information on the levels of awards made since then, by cohort.

Table 3

Number of new claims for credit exemption assessed each year (i.e. fee paying claimants, taken from statistics available) analysed by student cohort.

Cohort	A	B	C	D	E	F	G	H	K	L	M	Total
Year of entry	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	
Total	12830	9610	10640	9680	11380	9310	9260	7970	9939	8272	7413	106304

55. During the past decade the Open University has concluded agreements with several British universities and with the Council for National Academic Awards by which students who have successfully completed one or two years of full-time study with these institutions but who have not completed their degree studies, or who have successfully completed the whole or a part of the two-year Diploma in Higher Education, may be eligible for the award of directly transferred credits upon application for a place as an undergraduate student with the Open University. Similarly, it is possible for Open University students to transfer to full-time courses, sometimes with advanced standing, at fourteen British universities, and there are cases where similar formal agreements apply in respect of various colleges. The maximum number of credits which can be transferred under this scheme is four.

56. Many features of the Open University's undergraduate programme were highly innovative, but in one important respect it was essentially traditional. As Perry (1976 : 66) comments: "We made a clear decision not to innovate but to stick to the traditional fields of study typical of conventional universities". This decision was, he says, determined by the "over-riding need to achieve academic respectability".

57. This is not to deny the existence of some courses that are in themselves innovative, but the general tenor of the programme remains traditional. Moreover, it is clear that the general nature of the University's undergraduate programme is unlikely to change radically because of the level of investment of manpower and other resources in the design and production of courses, and because, while the minimum number of years over which a course is offered is normally four, in practice it often tends to be much longer, up to ten and now, in some cases, planned for twelve. The University is still trying to complete its existing 88 credit profile (see Figure 1) and it has not got the academic manpower or resources to impose rapid and far-reaching changes to its current programme.

THE POST-EXPERIENCE COURSES/CONTINUING EDUCATION PROGRAMME

58. As we have seen (paragraphs 31 and 37), the Planning Committee report referred to the need for "post-experience" courses of an "updating" or "refresher" nature, and as early as 1970/71 the University began to consider what kind of provision it might make in this area. The University's Charter, which lists amongst others the objective of promoting "the educational well-being of the community generally" confers almost unlimited authority on the University to develop courses. From the start, it was assumed that such courses might be at any academic level. There was also no intrinsic reason why courses in this area had to be similar (in format, length and use of media) to the University's undergraduate courses.

59. In one respect, however, the University was heavily constrained in developing its activities. The block grant provided to it by the Department of Education and Science could be used only to support its undergraduate, research and, to some extent, higher degrees programmes. As a result, the costs of developing 'post-experience' courses, and of presenting them, had to be covered either by special grants from sponsoring bodies, or by income from student fees since it had in effect to be self-financing. This had two results. In this field, it was to make the University more open to, and receptive of, collaborative ventures with other agencies in the joint preparation and presentation of courses. Secondly, it meant that the University had to be constrained by market forces. Not only had there to be a market for each course, but it also had to be large enough to enable the University to charge a reasonably economic fee, given the financial circumstances of the target population. Even so, fees were higher than for comparable courses in the undergraduate programme, and the University faced cash flow problems since income from fees would only accrue over a three or four years period, while the costs of design and production had to be met immediately.

60. The University's initial efforts in this field were, as Perry (1976 : 286) acknowledges, not particularly successful. However, in some respects, the first few courses which were offered in 1973 did point towards the future, for they included one of 16 weeks (requiring about 200 hours of student work) which had been specially developed as an in-service training course for teachers; some of the University's second level undergraduate courses which were now offered (at a higher fee) to students who had not previously done a foundation course (1); and a part of one of the undergraduate courses which was modified to last for 8 weeks and presented as a separate entity.

61. In view of this disappointing start, the University initiated in 1975 a thorough-going review of its role in the field of continuing education. The Committee charged with this review was chaired by Sir Peter Venables, who had not only chaired the original Planning Committee for the Open University but, as its first Pro-Chancellor, had also been Chairman of its Council. The Committee issued its final report in November 1976 (Open University, 1976). In this wide-ranging document it made a series of recommendations not only about the future role of the Open University but also about policies which it might adopt in relation to developments at the national level.

COURSES ORIGINATING WITHIN THE CONTINUING EDUCATION PROGRAMME

62. In the light of the Venables Report, the Continuing Education programme has developed in a number of areas, discussed below.

(a) In-service education of teachers (INSET)

63. The emphasis of the Open University's INSET programme is 'school-focused'. The courses are aimed at professional development and, significantly, require students to be in-service with ready access to learning groups so that they can carry out the action research activities which are an integral part of the design of the courses.

Footnote

(1) A half-credit undergraduate course was first offered to "occasional" students in 1972 on a pilot basis.

64. The University offers a Diploma in Reading Development, consisting of four courses, which aims to develop practical teaching skills based on a sound theoretical foundation. The Diploma is essentially a professional qualification. Each course involves 160 to 180 hours of study. One of them has a one week's residential summer school requirement, so the whole 2 year part-time programme is equivalent to one-year of full-time study. The INSET programme also includes a course Technology for Teachers which is intended for those in secondary schools concerned with developing an appreciation of technology in their pupils; one on Mathematics across the Curriculum, aimed at making explicit the mathematical content used in arriving at solutions in everyday life; and one on Curriculum in action : an approach to evaluation, designed to help teachers develop the professional skills necessary for evaluating the learning activity experienced by every pupil. In addition, a number of packs of learning materials have also been prepared.

65. These courses have been developed in response to particular needs. The Diploma in Reading Development reflected recommendations made in the Bullock Report, A Language for Life. The course on Curriculum in action was produced in conjunction with the Schools Council.

66. It is worth noting that even the most popular of the INSET courses, with an annual enrolment of 2,000 students, reaches appreciably less than one per cent of the UK teaching population. Collaboration with Local Edcuation Authorities (LEAs) is crucial if course materials are to give effective support to LEA activity.

67. The INSET programme reflects on the belief that the future of in-service education lies in enabling teachers to cope better with their professional work by helping the individual teacher to do his or her own theorising first, by helping them as individuals to make a systematic appraisal of their current activities, and then to invite a more rigorous review by providing material organised in such a way as to make this possible (Ashton and Merritt, 1979: 158). The approach assumes that teachers probably know more than they think they do, and that the job of INSET is to provide guidance in sorting, clarifying and extending personal thinking free from the pressures of the group situation (Ashton and Merritt, 1979: 159). Recently, Merritt (1981) has argued that there has been a tendency to provide teachers with too much material, and that INSET should concentrate on identifying a very small number of clearly presented important issues, with teachers being left to sort out the rest for themselves. The approach has led the INSET group at the Open University to produce a small number of packs of resource materials, each section of which provides a basis for the teacher to review his or her own current practices in a particular area of concern. The problems thus identified can then be aired in group discussion and the whole group can formulate some plans which can be put into effect, and which it can evaluate. Clearly if this approach is to have the best chances of success, the teachers need to work in school-based groups with the active support of their headteacher or discipline head. This is an aspect which the INSET group has tried to encourage by obtaining LEA support for teachers taking Open University INSET courses.

(b) Courses in Health and Social Welfare

68. The Open University at present offers three courses in this category - The Handicapped Person in the Community, Conflict in the Family and An Ageing Population. None of these courses are aimed at members of any particular profession, although they could contribute to the in-service training of many students. Those who take them are expected, however, to have an interest and concern for the health and social welfare of these sections of the community. The courses are topic based, so giving the student, whatever his previous training or experience, an opportunity to explore the whole field of problems and services associated with disability, ageing and family conflict. Each course focuses particularly on the integration of the services, assisting the student to improve his ability to plan, communicate, and cooperate both with clients and with other people concerned with their welfare.

(c) Commercial and Industrial Education

69. New trends in management education in the United Kingdom have been towards increased personalised training, with courses being tailored to particular company or organisational needs, and with emphasis on self-development, action-learning and joint-development activities. Directed private study, supplemented by occasional group work, is becoming increasingly accepted as an appropriate mode of study for management education, both by the Business Education Council and by bodies such as the Manchester Business School and London Regional Management Centre. In spite of this, it seems unlikely that there will be significant demand from larger organisations for Open University courses in management education. The prevailing view is that management development is something that the "firm" provides in the "firm's" time. The main potential source of demand for Open University courses seems to be individual managers, enrolling and studying independently on their own initiative. At the moment, the University has identified 'middle management' as the most appropriate group for its courses, with priority being given to short courses based on the general theme 'creating and coping with change'.

70. In the light of this approach the University has recently marketed two packages on microprocessors: Microprocessors and product design: a course for engineers, and Microprocessors and product development: a course for industry. They have been developed as self-teaching packages, and were produced in response to an approach by the Department of Industry, who was anxious to provide industry with suitable training courses in micro-technology. Two target groups were identified: Managers and decision-makers in manufacturing industry who were having to critically evaluate their product range because of the possibility of having to introduce microprocessor-based products; and engineers and designers who are responsible for the actual development of such products.

71. More recently, the University has begun to consider the provision of additional courses in Real-time monitoring and control systems, aimed at engineers, scientists and managers who have been practising in industry for five or more years and find their work transformed by the introduction of new computer techniques; and Manufacturing, aimed at middle managers with a scientific or technological background who are in a technical or supervisory role, and who need increased awareness of new and successful manufacturing methods.

(d) Community education

72. The objects of the Open University, as given in its Charter, include the promotion of 'the educational well-being of the community generally'. The Venables Committee found a substantial body of opinion which felt that the University should commit itself to the development of adult concern "courses" and packages of learning materials in collaboration with others.

73. Calder and Farnes (1981:86) define community education as follows:

> Community education is concerned with the learning of adults in their roles of parent, consumer, employee and citizen in the context of their family, work place and community. It helps people to reflect on their experience through a process of dialogue, become aware of alternatives, decide what they want and take appropriate action to achieve this. It is also concerned with community development in that it can facilitate, inform and enable participation and help people take action to influence the direction of social, cultural, environmental or economic changes that affect individuals and their communities. Similarly it is concerned with social networks in that community education must build on the resources within the community; the development of "local" materials and the provision of local support to encourage individual learners to draw on and value their experience can lead to a renewal of the local networks and agencies who are involved in the programme. There are many local agencies who, although not primarily educational providers, are concerned with the well-being of their members or clients and who have an educational component to their activities. They are part of the social infrastructure of local communities.

74. It is these needs which the Open University's Community Education programme tries to satisfy. However, while various target groups can be identified from amongst the community in general, they are not themselves a homogeneous group. "Even if a group of adults at a similar stage with similar roles (eg new parents) is identified as having a particular learning experience and educational attainment, the level of motivation to learn will differ substantially between individuals" (Calder and Farnes, 1981:88).

75. The Open University's solution has been to identify target groups along two main dimensions: materials and support needs, and learning needs. For example, any given learning materials and student support systems may be ideal for one group of learners, yet wholly inappropriate for another, even though the learners share the same learning need. Calder and Farnes (1981:89) show how learning needs within the Community Education programme have been dichotomised into a number of stages of adult life and roles, and how the programme has tried to determine the target audience as a whole by the age and stage the learning materials relate to, to identify learning needs for a particular target group (eg 'all those about to retire or who have retired'). The materials are then designed to reach as wide a range as possible of learners within the target group, taking into account the "need to lend themselves to multiple uses and adaptations" and to be "accessible and attractive to a wide ability range" (Calder and Farnes, 1981:90).

76. The outcome of this philosophy can be seen in the titles of the University's first few Community Education courses: The first years of life, The pre-school child, Childhood 5-10, Consumer decisions, Energy in the home, Health choices, and Governing schools. Others are currently planned. Each of these courses is designed to be studied over an eight week period.

UNDERGRADUATE COURSES FOR ASSOCIATE STUDENTS (1)

77. In the Open University, 'associate students' are those who are registered on coures which have either been developed outside of the undergraduate or higher degrees programme by the Centre for Continuing Education, or which were originally produced as undergraduate courses but which are now offered to students who wish to take them on a "free standing" basis - that is, not directly related to obtaining a degree.

78. At an early stage in the University's evolution, it was pointed out that courses which were being developed for the University's undergraduate students could also fulfil an updating, refresher or retraining role for individuals who would not be interested in taking a full degree course. In 1972, one such course, Electromagnetics and Electronics, was offered as a pilot scheme to a limited number of "occasional" students who had not passed a foundation course in 1971 and who were given direct entry to this higher level course on a "one-off" basis (see paragraph 60). The following year a second undergraduate course was offered, together with an eight week block of the thirty two week undergraduate course Renaissance and Reformation presented as a course on Reformation Studies. In 1982 a total of seventy-one undergraduate courses will be available to associate students. In principle any undergraduate course, with the exception of a foundation course, can be offered to students under this scheme. In addition five others which were originally developed as 'post-experience' courses, and which were available only to associate students, have been taken into the undergraduate programme and can be counted for credit towards the BA degree.

79. Associate students pay a higher fee than undergraduates on the same course. For example, in 1981 the associate student fee for half credit courses was £100 or £120, while for undergraduates it was £49. This is because of the different nature of the funding arrangments for associate students whose programme, unlike that of the undergraduates, is intended to be self-financing (see paragraph 59).

80. Students can move from the associate student programme to the undergraduate. Associate Students with satisfactory performance in both the end of the course examination and continuous assessment are awarded a Course Certificate which they can transfer for credit purposes towards the BA degree if they decide, at a later date, to enter the undergraduate programme, and provided the course is eligible for such transfer. (A few 16-week continuing education courses, as well as all the shorter ones, are not.) If they fail or do not sit the examination, and provided their written work is of a sufficiently high standard, they are eligible for the award of a Letter Of Course Completion. This, however, can not be transferred for credit purposes towards the BA Degree.

Footnote

(1) The University has changed its terminology for these students a number of times. Those on the 1972 pilot scheme were, as we have seen (paragraph 60) known as 'occasional students'. From 1973 to 1977 they were re-designated 'post-experience students'. In 1978 the current term 'associate student' was introduced (though they still take post-experience courses).

THE HIGHER DEGREE PROGRAMME

81. The Open University had from its inception a number of full-time postgraduate students undertaking research degrees. Very early on, it was decided to provide an opportunity for students to work part-time towards a higher degree. The first such higher degree students were members of the University's own staff, of which there were 3 registered for a degree in 1969. Three years later, the University began accepting part-time external students for postgraduate studies.

82. Full-time research students are supervised by members of the University's full-time academic staff, as are those members of the University's staff who are registered as research students on a part-time basis. External part-time students are home-based and generally in full-time employment. They work usually with an external supervisor, and use locally based research facilities.

83. All these students are working for research degrees, of which the University offers three. The Bachelor of Philosophy (B.Phil) is awarded to those who have undertaken a research programme or a literature review of a given field. The normal minimum periods of study for this degree are nine months full-time or twenty months part-time. The degree of Master of Philosophy (M.Phil) is awarded to candidates whose degree not only includes a critical review of the literature but also provides evidence of research ability, and represents a distinct contribution of scholarship in the field. The normal minimum period of study is 21 months full-time or 40 months part-time. The degree of Doctor of Philosophy has to represent a significant contribution to knowledge, worthy of publication, and must provide evidence of the candidate's ability to undertake further research without supervision. The normal minimum period of study for the PhD is 33 months full-time or 60 months part-time.

84. A particular problem faced by the University was to quantify the amount of time spent by its part-time research students on their studies. The problem was solved, at least in theory, by inventing the notion of a 'research credit' which was defined as a period of study equivalent to three months of full-time study and research. Each student's supervisor(s) was asked to report on the student's progress, and students had to undertake a minimum of work in order to continue their registration. A B.Phil degree was thus held to be equivalent to 3 credits, M.Phil to six credits, and a PhD to nine credits. In 1979 this system was dropped in favour of the simpler one of half-yearly reports.

85. In addition to these opportunities, members of the University's full-time staff who have been in post for at least three years may apply for the degree of Doctor of Philosophy on the basis of work which they have had published and which, taken as a whole, represents a coherent contribution to research in a given field and at a level equivalent to that of a doctoral thesis.

86. More recently, the University has approved a two-year B.Phil in Advanced Educational and Social Research Methods which would be based on the satisfactory study of printed course materials, and the completion of projects during the first year, together with the preparation during the second year of a dissertation in the form of a detailed argument for a piece of research on a topic of the student's own choice.

87. The Planning Committee had taken the view that the main emphasis of the University's postgraduate programme should be on the provision of opportunities for higher degrees for those unable to satisfy the normal residential requirements imposed by Universities. Similar opportunities were, in fact, already being provided by the Council for National Academic Awards (C.N.A.A) so, to this extent, the University was not really innovating but rather increasing the range of opportunities open to individuals. Indeed, many details of the Open University's scheme were based on practice already instituted by the CNAA.

THE RESEARCH PROGRAMME

88. There was never any doubt in the minds of its planners that the Open University should be a university in fact as well as in name. One of the distinctive features of a university, as opposed to other educational institutions, is that it engages in research, giving it as much priority as teaching.

89. At least initially, the efforts of academic staff went into the design and writing of the University's undergraduate courses but, with the passing of time, greater emphasis has been given to the encouragement of private research within the framework of terms and conditions of service for academic staff at British universities. Progress in the first five or six years was, however, subject to other limitations - including the relatively small size of the library and the lack of laboratory facilities. However, more recently the University has achieved a better balance between teaching and research. It has fostered the latter not only on an individual basis, but in the form of reserach groups of which there are now 25. Three of them (the Brain Research Group, the Energy Research Group and the Petrogenesis Research Group) have the status of sub-units within their faculties. The main source of research funding has been from external grants, which amounted to over £600,000 in 1980.

THE INSTITUTIONAL RESEARCH PROGRAMME

90. As an innovative institution, the Open University has from the beginning actively fostered institutional research, with a firm commitment to evaluation of its educational processes. In 1970 it established its own Institute of Educational Technology (IET), to assist the faculties in course development and to carry out a programme of educational and social research in the Open University.

91. The activities of the Institute's various research groups have been described in some detail in a recent University publication, Research in the OU (The Open University, 1981a: 33-4), from which the following paragraphs 92 to 104 are taken.

Audio-Visual Media Research Group

92. The group studies the use of audio-visual media in the Open University. For example, it carries out surveys to determine if students are using the broadcast elements of their courses, how they are using them, and when. A series of studies has been made on the feasibility of providing replay facilities in study centres as repeat broadcasts are phased out due to shortage of air time.

93. A major part of the group's work is the evaluation of individual broadcasts, aimed at deriving design principles of new courses.

94. The group is increasingly concerned with evaluating the educational potential for the University of new technological developments. For instance, it is managing and evaluating a British-Telecom-funded project on the use of CYCLOPS for audio-visual tutorials via the telephone in the East Midlands region.

Continuing Education Research and Evaluation Group

95. Evaluation research within the Centre for Continuing Education is conducted by this group. Research is carried out right from the policy formulation stage through to the dissemination of courses and learning packages.

96. Current studies include evaluation research on the extension of access to continuing education provision, the development and use of low resource learning packages, the role of volunteers in both formal and non-formal support networks, and outcomes of study for students and users of continuing education materials. These studies are grounded in course or project-based research so that relevant findings can directly inform the design of new courses and learning packages.

Student Assessment Research Group

97. The research of this group is designed to improve the University's methods of student assessment. Studies include the reliability of tutor-marked assignments (TMAs) and its improvement; the writing of TMAs; statistical and script monitoring of TMA marking; tutor commenting patterns on TMAs; the writing of computer marked assignments (CMAs) - a number of handbooks on CMA writing have been produced and evaluated - and the use of criterion-referenced testing and its relation to course design.

Study Methods Group

98. This group is investigating how students learn in the Open University by using a student-centred approach to research. Using qualitative methodologies, it is indicating that what students learn from a course is related to their orientation to study, their development as learners, and the particular demands of the learning activities.

Survey Research Department

99. Because the Open University teaches at a distance, survey research has been used as a major source of information on the interaction of students, local staff and media, and on access to those media and to the teaching provision, both by faculties and the administration.

100. The department uses various survey techniques: self-administered questionnaires, telephone interviews and panels for quantitative data, and depth interviews and group discussions for qualitative data. Projects range from short-term studies to longitudinal research over several years.

101. Many new courses are monitored using unit-to-unit feedback forms. Every course team receives detailed profiles of students taking its course six times a year, giving full details both of those making good progress and those who have dropped out.

102. Other studies examine trends in public awareness, intake, student costs, course demand, what happens to graduates and so on.

Textual Communications Research Group

103. This group studies the Open University's printed materials, and the way students learn from them. Two reading recorders have been designed and research on cognition and reading strategy is under way. Techniques for analysing the graphic, linguistic and subject-matter content of texts are being developed. The Group is also investigating computer text handling systems, with the aim of developing on-line aids for writer, editor and designers.

Other projects

104. Two other research groups are sponsored by the Institute: the Distance Education Research Group is carrying out two international studies of distance education, while the Computer Assisted Learning Research Group is investigating uses of computers at various levels of education.

105. These research groups have produced a wide range of reports, most of which are publically available, on various aspects of the Open University and (in the case of the Distance Education Research Group) of other distance teaching projects.

INTERNATIONAL ACTIVITIES

106. At an early stage in the Open University's development, it became apparent that it was a source of world-wide interest as an innovative educational institution. Use of distance teaching methods at University level was not a new phenomenom; indeed, universities had been teaching students at a distance - by correspondence tuition - for many years prior to the foundation of the Open University. Such activities were normally associated with an extra-mural department working within, and organisationally attached to, a conventional university. Universities as a whole did not teach only at a distance. In this respect the University of South Africa, (which was reconstituted in 1951 specifically to teach external students, largely by correspondence) and eleven distance teaching universities in the USSR, were for many years exceptional. There had, too, long been considerable experimentation with the use of broadcasting at various educational levels. By the 1960s, higher educational institutions in the United States, Australia, United Kingdom, France and so on were making limited use of both radio and television.

107. If one ignores the establishment in 1889 of a short-lived Correspondence University at Ithaca, New York State, the Open University was only the thirteenth such institution to be wholly committed to teaching students at a distance, and it was the first to be fully committed to a multi-media approach. (The others were the University of South Africa and the 11 Soviet institutions mentioned above.)

108. Inevitably, the Open University attracted great attention. Even before it began teaching in 1971, plans had been formulated for a distance teaching university in both Spain and Japan. Not every country that has considered establishing such a university has in fact done so, but the number of institutions modelled either explicitly or implicitly on the British Open University, or influenced by its development, slowly increased during the 1970s with the foundation of the Universidad Nacional de Educación a Distancia in Spain (1972), the Free University of Iran (1973), the FernUniversität in the Federal Republic of Germany (1974), Everyman's University in Israel (1974), the Allama Iqbal Open University (formerly People's Open University) in Pakistan (1974), the 'second' Athabasca University in Alberta Province, Canada (1975), the Universidad Nacional Abierta in Venezuela (1977), the Universidad Estatal a Distancia in Costa Rica (1977), the Sukhothai Thammathirat University in Thailand (1978), the Central Broadcasting and Television University in the People's Republic of China (1978) and, most recently, the Sri Lanka Open University (1981), the Dutch Open University (1981).

109. Plans are also well advanced to establish the University of the Air in Japan, and the Open University in Nigeria, while UNESCO has been involved in a feasibility study for a Palestinian Open University. There is a proposal for an American Open University (building on experience gained in the ill-fated University of Mid-America project), and proposals for similar institutions in, for example, Portugal, Finland and Denmark.

110. The emergence of these Universities is one of the most obvious indicators of the British Open University's influence on the development of higher education on a world-wide basis. Beyond this has been the considerable interest - once sceptical, now generally favourable - that it has attracted since its plans were first made public. This interest has shown itself in a variety of ways: the constant stream of people (still over 1,000 a year) visiting it; the demands for information on the system; and the requests for technical assistance of various kinds.

111. The University's response to these pressures has varied over the years. In 1974 it established a small Consultancy Service to respond to requests for advice and technical assistance from governments, and national and international agencies. This was expanded in 1977 and redesignated the Centre for International Co-operation and Services (OUCICS). It was closed down in 1980, following the withdrawal of British Government financial support, although a small International Office (reporting directly to the Vice-Chancellor) has been retained to provide administrative support in this area.

112. From 1974 to 1980 this unit organised familiarisation visits to the University; arranged short-term technical assistance missions to a large number of countries; managed two long-term contracts for the supply of technical assistance to the Free University of Iran and the Universidad Nacional Abierta of Venezuela; co-ordinated UKOU technical assistance through the UK Ministry of Overseas Development to the Allama Iqbal Open University, Pakistan; and developed and presented a number of training courses on various aspects of distance education (Kaye, 1975; OU, 1979b). Since 1980, when OUCICS was closed, the University has worked in partnership with the British Council in responding to requests for technical assistance, while continuing to meet the needs of short term (day) visitors from its own resources.

MARKETING AND EXTERNAL USE OF OU COURSE MATERIALS

113. It was quickly realised that the Open University would amass a wealth of educational materials, both printed and audio-visual, which could be of great potential use to other institutions. From the start, therefore, the University vested the copyright in all course materials in itself and not in individual authors.

114. The economic exploitation of the University's teaching materials is made difficult by the integrated, multi-media, nature of its courses. Most of the written texts are not self-sufficient in their own right. There are cross-references to commercially published text books and other works, as well as to broadcasts and other audio-visual elements. Nevertheless, in spite of these difficulties, the University has successfully marketed its materials both within the United Kingdom and overseas. Individual items and whole courses have been translated into other languages.

115. To start with, these commercial activities were handled by a Marketing Division attached to the Vice-Chancellor's office. In 1976, however, the University formed a limited company, Open University Educational Enterprises Limited, which is entirely controlled by the Council of the University, to promote the sales of course materials and to direct the activities of the Open University Press.

116. In the United States, a somewhat different approach was taken. North American institutions were by the mid-1970s beginning to consider the shared use of educational materials - and a number of them showed interest in using complete Open University courses. The attraction for them was that buying ready-packaged materials was a cheaper way of increasing course offerings than hiring more academic staff. Three universities in the USA (the University of Maryland, Rutgers University, and the University of Houston) participated in a pilot experiment to evaluate the use of Open University materials with funding being provided by the Carnegie Foundation, and evaluation of the project being undertaken by the Educational Testing Service in Princeton (Perry, 1976: 274-6). The interest generated in the use of its materials in the United States led the Open University to establish an office in Washington (later New York). At the time of writing this office (the British Open University Foundation Inc.) is still operating, although its future is under review.

117. In the United Kingdom, Moss and Brew (1981) sent a questionnaire to staff in three British institutions of higher education (University College Cardiff, Bristol Polytechnic, and the University of Essex) to determine the degree of familiarity of those staff with Open University materials, the extent of use of such materials, and the influence of the Open University on teaching ideas and strategies. They showed that about eighty percent of conventional higher education staff in those three institutions have had some contact with Open University texts and television programmes, while about 60 percent had listened to some of the radio programmes. Less than half the staff recommended Open University course texts, and ten percent or less of conventional lecturers made direct use of its texts. Those conventional staff who have acted as part-time Open University tutors or tutor counsellors tend to make greater use of Open University materials than those who have not held such jobs (Moss and Brew, 1981: 146). While warning that their findings need to be viewed

with caution, Moss and Brew concluded that, "comparing the take-up of Open University ideas in other institutions of higher education with the take-up of ideas emanating from other organisations which have a positive policy towards dissemination, or with the extent to which ideas are exchanged within and between other universities, then the degree of Open University infiltration is remarkable" (Moss and Brew, 1981: 147). However, there are limitations to this trend. The incorporation of ideas gained from Open University materials into a conventional lecturer's own programme, or the recommending of Open University texts as additional reading for on-campus students, is straightforward enough. But Brew (1978) showed that it was much harder to integrate Open University courses into a conventional university. She cited a number of reasons: the difficulty campus-based students have in accessing broadcasts; the very different nature of the experimental and assessment components in OU courses; and the difficulty of reconciling a self study programme with associated tutorials with the conventional lecture programme which is at the basis of the allocation of much staff teaching time in conventional universities.

5 MEDIA AND METHODS

EARLY IDEAS

118. The 1966 Advisory Committee report had indicated that the presentation of courses would variously involve a combination of television, radio, correspondence materials, programmed instruction, tutorials and practicals, short residential courses, and study and discussions at community viewing or study centres. In retrospect, the idea of a 'University of the Air' gave undue emphasis to the role of broadcasting - an emphasis which the 1969 Planning Committee Report did much to correct:

> Direct teaching by broadcasting supported by printed literature may provide all that is required for a short course of professional refreshment. It is, however, neither practically possible nor pedagogically sound to rely on broadcasting as the principal or exclusive means of instruction in an operation designed to provide disciplined courses at university level. The serious student needs to make the facts and concepts that have been presented to him his own by using them. He must undertake regular written work, ... some of which must be corrected so as to help him with his individual problems and errors and to permit assessment of his progress. The only method of individual instruction capable of being made available everywhere, and capable of indefinite expansion as new needs arise, is correspondence tuition, which can readily incorporate these new techniques.

119. The structure of the courses was also sketched out in considerable detail. Each course would have a substantial correspondence component. The text would form the nucleus around which an integrated sequence of radio and television programmes could be built. The programmes themselves would in turn be supportive of the main teaching text (1). Students would send in assignments by post, which might be linked to subject material contained in the broadcasts as well as the other elements of the course. The University's courses would be paced by broadcasts (and assignments) during the academic year, which would run from January to December.

120. Discussions with the British Broadcasting Corporation (BBC) on the possible links between it and the Open University dated back to 1966. From the Government's point of view, use of BBC facilities had the attraction that no major capital costs would be involved in the project, such as would arise if a dedicated educational channel were to be made available to the University. Perry (1976: 20-1) indicates that much of the credit for the success of these early discussions between Government and BBC must go to Lord Goodman (Chairman of the Arts Council and Prime Minister Wilson's personal solicitor) and Sir Hugh Greene, Director-General of the BBC. Even so, there had been those both within and outside the BBC who were more sceptical about the Open University, and critical of the proposal that it should make use of scarce transmission resources.

Footnote

(1) Although the programmes were to be designed primarily for the needs of the students, the general public would be free, and welcome, to 'eavesdrop' on them. The Committee recognised that they might "get considerable satisfaction and value" from them, as well as an opportunity to "measure their own capacities" against the demands of a course "before enrolling as students, and may thereby open up the possibilities of higher education for many people who would not otherwise discover them". These comments proved to be shrewdly prophetic. Even, now, about one-tenth of the applicants say that they first learnt of the University, or were drawn to it, through its broadcasts, which are seen and/or heard by an average of up to half a million people at any one time.

121. Very considerable attention was given to the relationship between the BBC and the University. The BBC was charged with the task of producing and transmitting the University's programmes within the context of an Educational Partnership, the terms of which were enshrined in a legal agreement between the two institutions, periodically renewed.

122 The Report of the Planning Committee contained the following statement in an appendix on the nature of the BBC-OU educational partnership:

> The radio and television programmes, required by the University and provided by the BBC, are to be planned on the basis of an educational partnership between University and BBC staff. In practice, this partnership will extend over the whole range from the conception of the course to the final recognition by both parties that, while effective education is the overriding objective, and the ultimate responsibility of the University under its Charter, each has a specific professional role to play. The University will prescribe the academic objectives and general character of the broadcasts, in relation to the other component parts of each course, while the BBC will provide the necessary presentation and production skills. In the overlapping area - where the inter-relationship of content and presentation is worked out - a reasonable degree of flexibility on both sides is essential in order to secure the proper concern of the academic staff and the fullest use of the experience of the broadcasting staff.
>
> Within this area, such matters as the choice of principal academic contributors to programmes and the inter-connection of subject instruction and broadcasting method will be of first importance to both partners. While the BBC recognises the right of the Open University finally to determine any such points that may be at issue, the University agrees that full participation of BBC staff in all discussions pertaining to these matters is a necessary condition of working effectively together. The key relationship between contributors and production staff jointly engaged in producing material and programmes for broadcasting will thus be secured.
>
> There will be a continuing need to secure the educational effectiveness of the programmes by the application of organised feed-back, research and other evaluative procedures to all the elements of the University courses, and appropriate provision will be made accordingly.

MULTI-MEDIA COURSES: THE UNDERGRADUATE PROGRAMME

Texts

123. Open University undergraduate courses are written around the structure of the academic year, which runs from 1 January to 31 December. Within this period, there is a single 'term' of about 38 weeks, 32 of which are used for teaching. Teaching begins in early February and finishes in mid-October. The usual teaching routine is disrupted during this period when the normal pattern of broadcasts is suspended over the Easter holiday period and by major sporting events in the summer (e.g. the Tennis Championships at Wimbledon). End of course examinations are held during the final three weeks of 'term'.

124. The length of the teaching period itself is determined as much by the operational and academic activities which take place between the end of one such period and the beginning of the next, as by the number of teaching weeks in the year and their disruption due to breaks in the normal pattern of transmissions. These operational activities include, for example, the marking of examination scripts; the conflation of examination and continuous assessment scores to give an overall grade; the allocation of students to new courses, and to tutors; the collection of tuition and other fees; and the despatch of the first packs of course materials to students.

125. Each teaching week has been planned on the assumption that students on a full-credit course will spend from 12 to 15 hours work on it, while those doing a half-credit course will have half this workload.

126. The correspondence course texts are normally the core of the system. These are specially written and designed paperback text-books in large format (A4), called - in Open University jargon - course units. Each unit indicates the overall and specific objectives of the students' study, and contains within the text a number of self-assessment questions which the student is encouraged to do in order to check on his own progress and understanding. Answers to these questions are also provided in the unit. The quality of the printed units is very high. Recently, however, the University has been developing some new course models. A high level project-based course in technology eschews the usual Open University course components - printed units, broadcasting, summer schools, home experiment kits - and has as its main teaching component one-to-one tutorial provision. The Faculty of Social Sciences is developing a series of Guided Study Options - half credit courses which will have a maximum of 50 students, no more than one unit's work of material, and will be tutored by full-time central or regional staff. The format is ideal for a subject which dates quickly or which is of topical interest. Both project, and Guided Study, courses rely more heavily on set books and tuition, and expect students to study in a more independent fashion.

127. Students on most courses are given a list of set books which they are recommended to buy rather than borrow through libraries. Some of these will have been written by Open University academics or consultants specially for the course. In other cases, they are commercially published books which were already on the market when the course came to be designed. The University tries to ensure that these books will continue to be available throughout the life of the course (which may be up to ten years) by reaching agreements with the publishers. Students are also provided with a list of recommended books for optional extra reading, which they are not expected to buy. In general the set books support the course. However, one course, on Differential Geometry, is based on a set book, which is itself supported by specially written course notes.

Broadcast and other audio-visual materials

128. The majority of courses have a number of broadcasts associated with them - both radio and television programmes. These programmes are broadcast at regular intervals - from weekly to monthly - depending on the varying level of broadcast support allocated to the courses. The television programmes are of 25 minutes duration and are broadcast on BBC-1 and BBC-2 channels. In 1982 they are to be on weekdays from 0640 to 0755 on both channels, and from 1705 to 1735 on BBC-2 only; and at weekends from 0625 to 0855 (both channels) and from 0855 to 1510 (on BBC-2). Radio programmes, of 20 minutes duration, are broadcast on the BBC's VHF Radio 3 and Radio 4 channels. Transmissions on Radio 3 are from 0555 to 0655 and 2315 to 0015 daily (with additional optional times from 0015 to 0055), and from 0655 to 0755 on Saturdays and Sundays. Transmissions on Radio 4 are from 2330 to 0010, Mondays to Thursdays; and from 0655 to 0755 on Sundays. A number of courses have either no television or no radio programmes. Most of those with no radio transmissions have audio-cassettes provided. One course has none of these media.

129. The total national networked transmission time in 1982 is 35 hours (television) and 19 hours 40 minutes (radio) per week.

130. The Open University's volume of transmission is much higher than that of most other distance teaching universities. In spite of this it was, in the mid-1970s, faced with a shortage of air time in respect of overall needs for its undergraduate and continuing education programmes. In 1976, for example, it put forward its case to the government-appointed Annan Committee on the Future of Broadcasting for a total of 76 hours per week on television and 58 hours on radio (Open University, 1975: 2).

131. The University is competing with general service needs and other educational and specialised users for limited, nationally networked, broadcasting times. Critics point to the low number of students on many of its courses, giving an average for each of only about 500 per year, and sometimes considerably less - a figure which is insignificant in audience terms. For this reason the University has had to use marginal viewing times, while its allocation of peak hours (particularly in the early evening) has been severely limited. Unfortunately the University's students, as working adults, can in general view programmes only outside normal working hours. As a direct result, transmissions tend to be in the very early morning or late at night - with weekend morning television being a notable exception.

132. For its part, the University has always insisted that its programmes should be integrated with the course texts, and that they fulfil teaching functions which cannot be achieved as well through other media. Very early in its history, the University developed an analysis of the pedagogical roles of broadcasting, and then used it to allocate television and radio programmes to courses (Open University, 1979c). It is therefore important that students should be able to watch or listen to the broadcasts. Indeed, some course teams make the point that it is virtually impossible to deal with certain assignments adequately without doing so.

133. For this reason, the University from its early days broadcast all programmes twice. However, studies undertaken in the mid-1970s indicated that, given its growing total of courses, the number of programmes which it would need to broadcast to students would rise but without a pro-rata increase in transmission time. As a result, an increasing number of programmes could not be repeated. A report by Bates (1975) indicated that the loss of transmission times was likely to reduce the number of students able to watch or listen to any particular programme by between 20 and 35 percent. By 1979, the television viewing rate for post-foundation courses with repeats was 57 percent, whilst for courses without repeats the figure was 43.8 percent. The viewing rate averaged over all courses had dropped from 63.7 percent in 1974-78 to 55.5 percent in 1979 - and this trend, it was believed, would continue unless the University could find additional transmission times (perhaps on Independent television channels or on new ones made possible by the introduction of satellite broadcasting) or make use of other media.

134. The shortage of transmission time led the Open University to examine the use of alternative media technologies. Its courses have always made use of appropriate ancillary materials - records or tapes, film strips, slides and so on. In 1977 it began seriously to consider alternatives to the direct transmission of audio-visual materials (Bates and Kern, 1977).

135. As early as 1971-2, the University provided audio and video cassettes of foundation course programmes in its study centres, on the grounds that this would help students who did not own receivers or who were unable to receive the programmes. The poor quality of reproduction, and the cost of extending the service to cover all courses, led to its abandonment in 1973. Next year, however, the University began to use new video-cassette recorders on an experimental basis. In 1977, an audio cassette library service was introduced, by which students could request taped copies of radio programmes for their own use. Some courses had by then already begun to make use of audio cassettes, sometimes in conjunction with printed materials (audio-vision). Interest began to develop in other forms of audio-visual contact at about the same time, including the use of data information access/visual display services like the British Post Office's Viewdata, the BBC's Ceefax, and the Independent Broadcasting Authority's Oracle. The use of electronic blackboards began to be researched - culminating in the introduction for limited, experimental, use of the University's Cyclops system, which allows students and tutors to use light-pens to write and draw on ordinary television screens, and transmit the signal down a telephone link to the recipient's screen. By 1981, too, a limited video cassette library-based service was available, whereby students on courses which had less than 400 students nationally, and whose television programmes were broadcast only once, could borrow a video cassette copy of the programme.

136. In essence the trend has been from the use of open air transmission, with the University providing a back-up service of radio and television receivers in study centres (from 1971), through an extended back-up service of study centre based video cassettes (experimentation from 1971) to the provision of a library service of audio cassette recordings of radio programmes (from 1977) and video-cassette recordings of television programmes (from 1981), towards an increasingly home-based system in which students will have their own audio and video-cassette players (and play the tapes which are sent or loaned to them as part of the course material). As a further step towards encouraging use of this scarce resource, the University has started a scheme of loaning VCRs to students, particularly in difficult reception areas, who are willing to let their fellows in the district come to their homes and view with them - an extension of the 'self-help' group principle discussed in paragraph 145. Eventually, students may be able to record programmes broadcast during the night by means of recorders linked to time switches, for their own subsequent use. Already, a number of courses are producing audio cassettes rather than radio programmes, or producing video programmes from the start for use, from the start, only on cassette.

137. In step with this trend, and to further reduce the pressure on transmission time, the University has recently agreed that the annual level of production of new programmes, which for many years was planned to be at a level of 300 on each medium, should (in 1981/2) be reduced to 230 television programmes and 300 radio or audio-cassette programmes, with a further reduction to 220 television programmes from 1983 onwards. The reduction in television production will also be reflected in smaller allocations of programmes to new courses.

138. The move to cassettes has in effect solved the University's transmission problems on radio. In the period 1976 to 1980, it transmitted 25 hours 10 minutes a week on radio. As we have noted above, a number of programmes could not be repeated, even with this level of transmission. The increasing use of audio-cassettes led to a small reduction in output in 1981 (24 hours 40 minutes) and a further one in 1982 (19 hours 40 minutes). Moreover, in spite of this, in 1982 all radio programmes will have repeat transmissions.

Tuition and counselling

139. One of the major functions which has to be undertaken in any correspondence teaching system is the need to correct students' assignments. In addition, the University was in its early days very conscious of those critics who forecast that the system would fail in the face of excessive and unacceptable student drop-out rates. To meet this problem, the Planning Committee not only proposed the provision of limited face-to-face tutorial contact, but also a student counselling service to provide general educational, as opposed to academic, support to the students.

140. In its first teaching year (1971) these three functions - that is, correspondence tutor, class tutor and counselling - were separated. R.H. Beevers, the University's first Director of Studies of Regional Tutorial Services, justified the distinction between tutorial and counselling services as follows:

> Adult education experience suggests that at least 50% of a given student's needs are not strictly related to the subject in hand. That is not to say that his needs are solely psychological and unconnected with the content of study; the help he needs is of an educational kind, even of an academic kind, but not strictly subject based. It becomes possible therefore to conceive of a function for the counsellor which is totally related to the whole tutorial process (Beevers, cited in Keegan, 1981:6).

141. In this system, the counsellor's roles were various: contact with and encouragement of the student in relation to study, personal and social problems; the organisation at study centres of student meetings and group discussions; providing students with remedial help; keeping records on students and contacting those unable to attend the study centres; and generally preventing drop-out.

142. The distinction drawn in 1971 between class tutors, who were subject specialists employed to give face-to-face tutorials to groups of students in the local study centres, and correspondence tutors, who marked and commented on student assignments, was less clear-cut. In 1972, therefore, the two roles were amalgamated into one - the course tutor. Students continued to be attached to counsellors, who, while they were encouraged to fulfil a tutorial role in respect of courses where they had a subject expertise and where they felt they could help on an individual basis, were in fact employed primarily as counsellors (as described in paragraph 141) whose 'tutorial role' was in practice more theoretical than actual.

143. As the number of higher level courses proliferated and average student numbers per course fell (because the number of course options was increasing more rapidly than the number of students, and because some higher level courses attracted relatively low populations), so it became more difficult to provide a locally based face-to-face tutorial service in all study centres for all courses. The role of the counsellor was also under discussion - with some people arguing that the counsellor should have a wholly educational role, untrammelled by the obligation of the course tutor to pass judgement on students' academic progress, while others held that counselling could be more effective if the person carrying out this function had a close knowledge of the student's academic work. To cope with these and other problems, a new system was introduced in 1976, and which has remained in operation since. In it there are two kinds of part-time staff. Tutor-counsellors are appointed with full tutorial and counselling responsibility for an annual group of about 12 students following a common Foundation Course. They remain Counsellors to each such group thereafter up to a maximum, including those on a current Foundation Course, of 56 students in all. The tutorial role at post-Foundation level passes to the various Course Tutors, who provide correspondence and other tuition to groups of approximately 20 students following specific higher level courses.

144. It should be borne in mind, however, that the amount of face-to-face tuition provided on many courses is extremely limited and that tuition is essentially a back-up service supportive of the major teaching element - the written course texts, together with their associated broadcasts, set books, etc. The average allocation of tutorial contact time for a half credit course is 7 hours (15 hours for a full-credit course) for each tutorial group of 20 or 21 students. Students in any such group may, however, be spread over a large geographical area (and even over adjoining regions) and, as a result, the best that can be managed may be a single day school or two half-day schools during the course. In some cases, no face-to-face contact can be provided, and tutorial support will be on a one-to-one basis by telephone, with the 7 hours being apportioned between the whole group of 20 students (giving about 22 minutes each). In others, tutors are linked up with a number of students (five or six) by means of a telephone conference call network, a form of distance tuition that the University is doing much to pioneer.

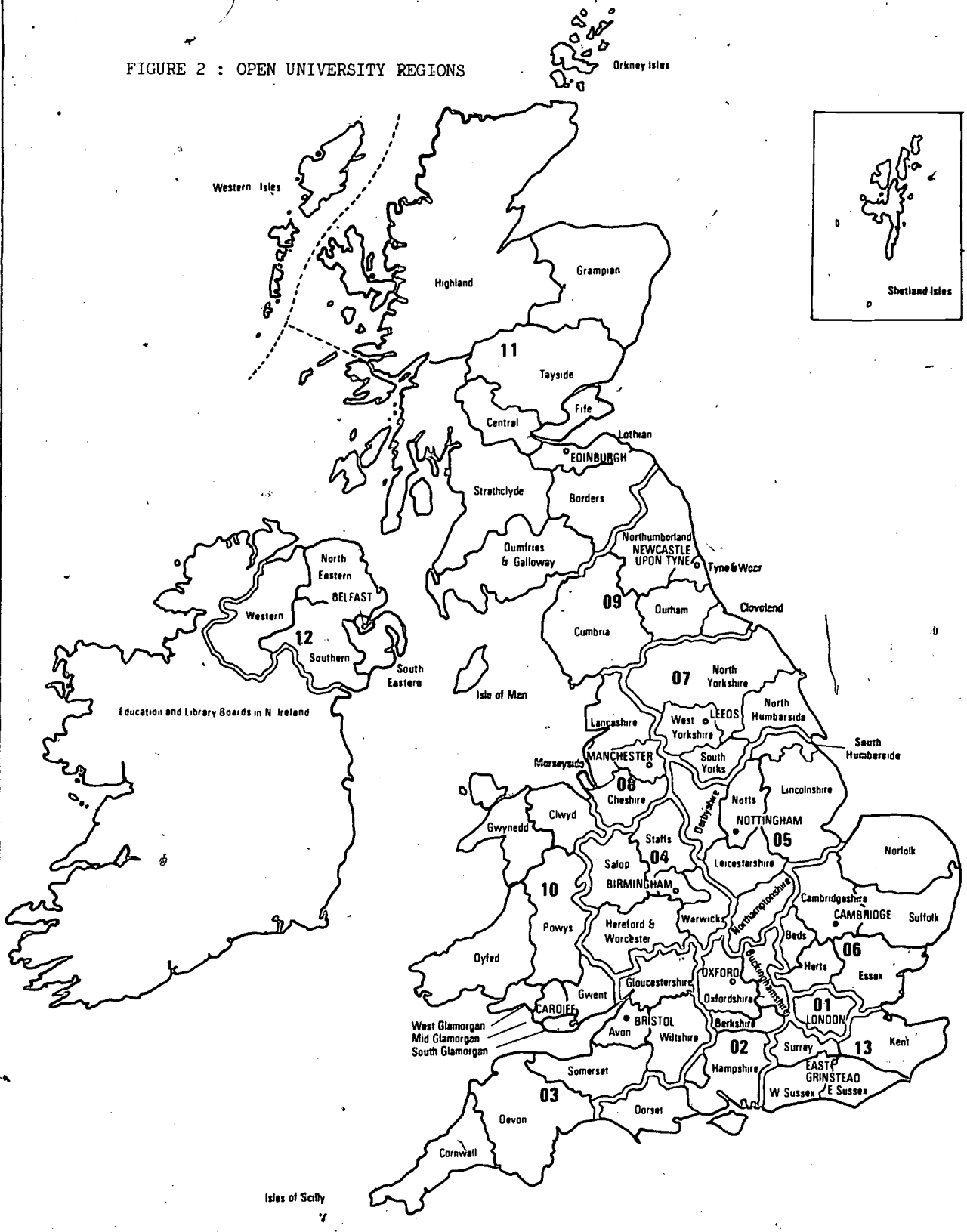
145. Generally speaking, students who cannot attend a study centre are free to contact their tutor or counsellor by telephone, as well as by letter. More significant, however, are recent technological developments - Prestel-type facilities, video-cassettes, and Cyclops - which will allow information to be relayed to students more quickly. The updating of course material will be easier, feedback from students can be incorporated more easily, and their individual programmes may be accommodated more successfully. The ability to improve course materials and to respond flexibly to the needs of students, coupled with telephone tuition, may make it easier to react quickly to the needs of individuals and groups of students. They may offer the more personalised teaching which is needed, and which the University is unable to provide through its restricted face-to-face tuition mentioned above. In paragraph 218 it is suggested that the provision of a comprehensive support system is a major factor underlying the University's success in minimising drop-out rates. Yet the current situation (as the figures in Table 22 on page 69 show) is that increasing drop-out and falling pass rates, particularly at third level, give cause for concern. If there is a direct link between the lack of personalised support on the one hand, and drop-out and failure rates on the other, then the new technologies now becoming available may ameliorate the situation. One further point can be conveniently covered here: the University has long encouraged students, especially those who live far from a tutor or who can but rarely meet him, to form 'self-help groups' and thus achieve a modicum of contact and mutual support. Despite their necessarily ad-hoc nature and duration, these groups have proved of great value to many students who might otherwise have given up their studies.

Regions and study centres

146. The overall organisation of tuition and counselling services takes place within the framework of the University's regional system. The country is divided into 13 regions (see Figure 2), each with its own Regional Office and its own complement of full-time academic, administrative and secretarial/clerical staff.

147. The Regions administer the University's local Study Centres, of which there are about 260 nationally. Study centres are usually based in local colleges or schools, and are open on weekday evenings and sometimes on Saturdays as well. Students are able to meet there for tutorials and mutual help, and for individual and group discussions with tutor-counsellors and course tutors. Students are not obliged to attend the centres, but many find it helpful to do so. Study centres provide a range of resources. For instance, students can watch television, or listen to radio programmes 'live'. They can also follow the latter with tapes and a replay device, and some of the former (on cassettes bookable in advance from certain regional offices) on the television set available there. Sets of Foundation course units, and Post-Foundation guides, are usually held. About 170 centres have computer terminals so that students taking courses which include computing can gain practical experience. Many of the institutions housing OU study centres allow students to make use of the library for reference and private study.

FIGURE 2 : OPEN UNIVERSITY REGIONS



Residential Schools

148. While attendance at tutorials is not compulsory, there is one element of the University's face-to-face contact programmes which is - the residential schools (most of which are known in the University as Summer Schools). Residential schools are normally one week residential programmes which students on certain courses are required to attend. They are generally held at conventional university campuses, parts of which the Open University hires for the purpose. Most of them are held in the summer vacation period (July - early September), but there is also one held at Easter.

149. Residential schools are an integral part of all foundation, and many post-foundation, courses. Here students are given the opportunity to immerse themselves in what they are studying, meet fellow students on the same course, and a variety of tutors. For some courses, they have access to specialised equipment and laboratories. Some idea of the scale of the operation is indicated by the fact that 35 different summer schools were organised in 1980, with just over 30,000 student-week attendances.

Home Experiment Kits

150. A particular problem faced by the Open University is to teach science and technology adequately to home-based students who, apart from a week at residential school and the occasional (voluntary) Saturday school, may have little or no opportunity to undertake practical experiments on their own. The University's solution to this problem is partly to demonstrate experiments in television programmes, and partly to provide students with kits which they can use in their own home to conduct their own experiments - following the detailed explanations provided with them in home experiment guidance notes. In 1981 there were some 43 different kits, with a value ranging from £2 sterling to £250. 31,500 in all were despatched to students in that year. The various items in the kits are classified as durable or consumables - the latter being written-off each year, while the former are lent to the student for the duration of the course, and must be returned by him or her at the end of it, for reissue to another student in the following year. Kits vary in their size and complexity; that for the first Science foundation course kit had no less than 272 separate components, including slides, chemicals, rock samples and other items.

MULTIMEDIA COURSES: THE CONTINUING EDUCATION PROGRAMME

151. In general, the pattern of course presentation and the choice of media made in the Continuing Education Programme is similar to that found in the undergraduate one. Greatest variety is to be found in the Community Education courses, where materials have been developed in a variety of formats, and adapted to particular delivery and support systems and to the needs of different subgroups within the target population. Calder and Farnes (1981: 91) list some of the various print formats that have been used, as follows:

1 Multi-media Course Materials: consisting of eight 32 page full colour structured learning booklets, a resource pack containing leaflets, posters and cardboard cut-outs, computer marked assignments booklet, Study Guide, Information booklet; 4 x 25 min. TV programmes, 4 x 20 min radio programmes, 3 x 20 min. gramophone discs.

2 Book of the Course: 256 page full colour version of the 8 booklets mentioned above, reprinted as a single volume for sale in retail bookshops.

3 Part Works: 20 x 16 page partworks sold by newsagents bi-weekly.

4 Booklet: 64 page booklet based on course materials adapted for distribution in clinics.

5 Booklet: 16 page booklet adapted from course materials for use in conjunction with 6 local radio broadcasts.

6 Leaflet: leaflets reprinted from course materials for use by Health Visitors in clinics and home visiting.

7 Extracts: half-page adapted extracts from the course material published in 8 issues of a mass circulation magazine.

ASSIGNMENTS, EXAMINATIONS AND CERTIFICATION

152. Assessment consists of two parts: regular assignments which the student is required to do during the year, and a final examination at the end of the course.

153. Assignments are of two kinds. There are tutor marked assignments which, as the name implies, are marked by the student's course tutor or tutor-counsellor; and computer marked assignments (CMAs). The latter are in general multiple choice questions. Some course teams make considerable use of them, particularly in mathematics, science and technology. They are not however required to set such questions. Tutor marked assignments (TMAs) may include short-answer questions, essays, or longer projects. The University requires all courses to set TMAs. A full-credit course has to have a minimum of 8 TMAs or their equivalent in assessable student projects, although some courses have more.

154. All undergraduate BA degree courses and most of those available to associate students (but not those within the community education programme) have a formal three hour invigilated examination at the end.

155. Many courses assess students on the best 75 percent or so of 'summative' assignments - that is, those designated as necessary for assessment purposes - submitted by them. Those not so designated are described as 'formative' - i.e. purely for practice, or teaching purposes. Students are naturally encouraged to do as many as possible of both kinds, for their own benefit.

156. A student final grade depends upon the relative weight given to assignment and examination scores. Overall, there is considerable flexibility for course teams to assign weightings to each element (except that the one for the examination may not be less than 40 percent of the whole; it is normally about 50 percent), as well as to individual assignments, some of which, especially those of a project or similar nature, may be double-weighted or more.

157. Students are required to submit their assignments by a fixed date. This 'cut-off' date, as it is called, for the receipt of an assignment is defined as the date on which the tutor receives it (for a TMA), or the Examinations Office receives it (for a CMA). However, there are procedures, relating to TMAs only, for granting students some extension of time where there appears good reasons for doing so.

158. The University has procedures whereby assignments are monitored to ensure that the grades awarded are fair and reasonable, and as far as possible on a consistent nationwide basis (essential for such a far-flung distance-teaching institution). There are also procedures, too, whereby students may appeal against a grading.

159. Undergraduate students who gain an overall pass grade on continuous assessment and examination are awarded a Course Credit. Associate students in the same position are awarded a Course Certificate. In certain cases (see paragraph 80) these awards are interchangeable. The conflation of continuous assessment and final examination grades results in an overall score which determines the overall grade awarded to the student for a particular course, and which therefore is taken into account in the classification of his or her honours degree (see paragraph 43). Associate students are similarly awarded a Course Certificate - and the overall grade for the course which will be taken into account if they subsequently transfer to the undergraduate programme. Associate students who have decided not to sit the final examination, but have passed on continuous assessment, may be awarded a Letter of Course Completion. In some cases (including all short courses) a Letter of Course Completion is the only award for which students are eligible.

160. By and large, the Open University takes great care to be both fair to individual students and to maintain academic standards (by, for example, appointing external examiners to its courses). Further, a proportion of all assignments received are monitored to ensure that the tutor's gradings are fair and broadly in line with the grades awarded by other tutors on the course in accordance with the course team's guidelines (see paragraph 158); and where tutors are identified as marking too leniently or too harshly, more thorough checks of their work are instituted, and are taken into account in considering the performance of the student(s) concerned.

HOME-BASED, SELF-PACED STUDY

161. The Open University was established to capitalise on the techniques of correspondence study linked with the new educational media.

162. The use of correspondence teaching methods at the higher education level was not in itself a new development, nor was the use of broadcasting (radio and television) for educational purposes. The Open University's special contribution to the development of distance education has been to take these various media and to integrate them in highly structured courses which are generally recognised as being of outstanding quality, both academically and pedagogically.

163. A particular aim of the University is to provide home-based learners with a flexible means of study. By and large, students can study the correspondence texts, listen to audio-tapes, and do experiments, in their own time.

164. Students are, however, constrained by the fact that the teaching period has a fixed start and finish, with a formal end of term examination which they must attend if they are to gain credit in the course (see paragraphs 123 above). During the year the students have to complete and submit assignments for marking by tutor or computer. These assignments have due dates for submission, and cut-off dates after which they will not normally be accepted. Assignments are an important element of the overall assessment strategy - hence it is not surprising that the main pacing mechanism determining students' work and progress is the assignment system.

165. Early on in the University's history, it was thought that the regular broadcast transmissions would have an important pacing function on students - but the relatively infrequent transmissions on some courses (e.g. once a month) and the problems of viewing have meant that this is not the case. Indeed, the move towards cassettes (audio and video) must represent a further freeing of the student from some of the rigours of a timetable. Since the student learning activities most constrained by time and place (tutorials and, to a lesser extent, broadcast transmissions) are optional, it is clear that they do have a great deal of freedom and flexibility in pacing their work. At the same time, the assignment system provides an incentive for them to keep up with their studies.

6. STUDENT ADMINISTRATION, STUDENT CHARACTERISTICS AND STUDENT PROGRESS

STUDENT ADMINISTRATION: ADMISSIONS AND REGISTRATION PROCEDURES

166. Reference has already been made to various aspects of student administration and the rules regulating student progress (e.g. in relation to student progress through various course levels within the undergraduate programme - see paragraph 45; in relation to credit exemptions - see paragraphs 53 and 54; and in relation to assessment and examinations - see paragraphs 152 to 160).

167. Regulations vary according to the programme of study in which a student is registered. The most important distinction to bear in mind is that undergraduate students, and associate students enrolled on the Diploma in Reading Development, are expected to progress from course to course over a number of years. Postgraduate students are initially enrolled for a higher degree; which one is not specifically decided till after the first or second annual report depending respectively, on whether they are full or part-time students; in some cases there may be further deferment if additional work is felt to be needed before a decision can be made. Associate students on courses other than those associated with the Diploma in Reading Development are registered for such course(s) individually.

168. Applicants to the undergraduate programme wishing to begin a foundation course in a particular year have to apply from seven to twelve months before the course begins. They are asked to indicate which foundation course or courses they wish to take, indicating their 'ideal choice(s)' first. Broadly speaking, they are enrolled on a first-come, first accepted basis subject to various course, regional, sex and other quotas. Applicants may be offered a place, or they may be told that none is available. In making its offer, the University takes no account whatsoever of the applicant's previous educational qualifications, and at no time does it refuse a place because it considers him or her to be in any way unprepared for study with the University. Rejection is determined solely by the fact that there have consistently been more applicants than places available.

169. Undergraduate applicants who are accepted are asked to pay an initial tuition fee. Payment of this ensures their initial registration as a new student. Only in March of the year in which they have begun their studies (that is, when they have been students for some three months) are they asked to pay the balance of tuition fees. This allows them to test the system and to decide whether or not the Open University's learning methods are suited to their needs and temperament. About one in four new students decide not to continue with their studies past April of their first year.

170. Once a new undergraduate student is finally registered (in April of his or her first year of study), it is assumed that he will continue to study with the Open University in the following year, and he (along with all other students) is asked to nominate the courses he wishes to take in the following year. At this stage, a student conditionally registers for further courses: his registration may be conditional on the results he obtains on his current course, and also on the University's ability to accept him on the desired course (some higher level courses, particularly those with residential schools or home kits, may have maximum student quotas imposed on them). Continuing undergraduate students effectively confirm their conditional registration when they pay their course tuition fee in January of the new academic year.

171. Admission and registration procedures for associate students not taking community education courses are broadly comparable. That is, they apply, are offered a place, and are required to pay an initial tuition fee, to be followed by the balance at a later date. Community education students send in the course fee (£16) at the same time as their application form. Acceptance (and hence registration) is automatic. Higher degree students are dealt with in a very different way. Their application forms are vetted by the faculty or discipline area with which they wish to study - and they are accepted only on the basis of their academic or other qualifications, on the suitability and acceptability of their research proposal, and on the ability of the faculty to provide supervision.

APPLICANT DEMAND

172. The Open University has, from its inception, been committed to widening access to higher education. No formal educational qualifications are required of applicants to the undergraduate and continuing education programmes, although Higher degree applicants normally have to have a good first degree of a British university or the (British) Council for National Academic Awards, although candidates with suitable alternative qualifications, experience, or research can be considered, exceptionally.

173. However, the expectation that students on the Diploma in Reading Development and on some other INSET courses will be in-service teachers also presupposes certain academic qualifications on their part, as well as an occupational 'qualification'.

174. Applicants for the University's academic programmes normally have to be aged 21 or over, but anyone aged 16 or more is eligible to take the community education courses, and the University will, in certain circumstances, make exceptions for those aged 18 to 20 in other programmes.

175. When the Conservative Party was returned to Government in 1970 the then Minister of Education, Mrs. Margaret Thatcher, asked the University to consider "the contribution that it can make to the development of higher education provision in the future" - and specifically in relation to 18 to 21 year olds. The University replied that it felt that its teaching system is unsuitable for school-leavers, on the grounds that this group generally lacks the maturity and sheer determination required to study in isolation at a distance. Nevertheless, the Government insisted and, on provision from it of the necessary funding the University admitted three experimental intakes of younger students, in 1974, 1975 and 1976. In all, 3,132 individuals applied to the Open University for admission under the scheme. The original intention was that, for comparative purposes, the intake should be equally divided between those with, and those without, the normal minimum qualifications for entry to a British University - two General Certificates of Education at Advanced level (GCE 'A' levels). In the event, only a third of the 1300 students admitted under the scheme had the stipulated qualifications, an imbalance that was one of the reasons for extending the scheme beyond its originally intended single intake. Evaluation of the project took several years and the final report was not published until 1980 (Woodley and McIntosh, 1980). It shows that the younger students were less likely to finally register after the initial

three month provisional registration period than were the older ones (61 percent compared with 75 percent) and that those who finally registered were less likely to gain credit at the end of their foundation course (63 percent compared with 81 percent). However, those who got this far went on to make satisfactory progress in subsequent years. On the whole the younger students found the Open University a very hard road to follow. However, the evaluators did not conclude that distance learning is inherently unsuitable for the younger age group. Although they argued that it is preferable for young people to attend full-time courses wherever possible, it is, nevertheless, possible that a distance teaching system could be devised which would be "more appropriate to the needs and circumstances of young people" (Woodley and McIntosh, 1981: 74, 78).

The undergraduate programme

176. Demand for entry into the University's undergraduate programme has consistently exceeded the number of places which it is able to offer. Table 4 provides basic information.

Table 4 Application for entry as an undergraduate student of the Open University

Year of application (for entry in the following year)	Number of Enquiries from Persons interested	Number of Applicants	Number of New Students Provisionally Registered to study in the succeeding year
1970	123,556	43,444	24,200
1971	77,722	35,182	20,501
1972	71,757	32,046	16,895
1973	81,392	35,011	14,976
1974	109,858	52,537	19,823
1975	86,433	52,916	16,311
1976	75,541	49,956	19,886
1977	87,335	45,293	20,882
1978	81,783	42,754	20,719
1979	93,399	45,311	19,448
1980	84,051	43,016	20,332
1981	102,045	46,460	25,311

Continuing education/associate student programme

177. Demand for entry as an associate student, to take the various types of courses summarised in paragraph 40 (b), has also increased steadily over the years - although the numbers are not as significant as those in the undergraduate programme (see Table 5).

Table 5 Applicants and Applicant-courses for entry as an associate student of the Open University (excluding short-courses)

Year of Application, for entry in the following year	Number of Applicant Courses	Number of Registered Student Courses	Number of Applicants (individuals)	Number of Registered Students in the following year
1972	3,422	2,026	n/a	n/a
1973	4,019	2,868	n/a	n/a
1974	8,324	6,259	6,993	4,188
1975	8,645	4,771	6,245	4,578
1976	10,754	6,276	8,552	5,576
1977	11,355	7,580	9,532	6,923
1978	14,391	9,518	11,955	8,778
1979	13,870	8,668	10,567	7,889
1980	14,223	7,972	10,492	7,595
1981	14,188	7,714	10,948*	7,311

* Provisional

178. Table 6 provides information on the number of students taking the University's short community-education courses.

Table 6 Number of students taking Open University short community-education courses

1977	6,095
1978	13,677
1979	10,236
1980	13,903
1981	16,475

Higher degree programme

179. Applications from persons hoping to enrol as part-time external postgraduate students have remained fairly constant over the years (Table 7), averaging about 436 per year.

Table 7 Applications for entry as a part-time external postgraduate student of the Open University

Year	Number of Applicants
1971	454
1972	417
1973	425
1974	403
1975	386
1976	465
1977	434
1978	450
1979	477
1980	447

STUDENT FEES AND FINANCIAL HARDSHIP

180. The fee levels for undergraduate and associate students are not negligible. Undergraduate students pay £98 per credit (1981 levels, half-credit pro-rata). Associate students pay up to £170 per credit (half-credit courses £100 or £120). In addition, students taking a course with a residential school are required to pay an additional £75 per week (1981 levels). The set books for some full-credit courses cost in excess of £25; and there are the associated costs of travel, materials and possibly equipment which students may have to bear.

181. Fee levels for 1981/1982 higher degree students are as follows: full-time students pay a composite annual fee of £1,320 for the academic year 1981/82 (£2,500 for arts-based, and £3,600 for science-based, overseas students). Part-time external students pay an initial registration fee of £45 followed by a six-monthly registration fee of £45, and an examination fee of £40, £50 or £60, depending on whether he or she is submitting a B.Phil, M.Phil or PhD thesis.

182. There is evidence that increased fee levels, coupled with the general economic situation in the United Kingdom, is having an adverse effect on the number of persons who enquire about the Open University but decide not to apply; on the number of new undergraduate students who decide not to continue with their studies beyond the initial registration period; and on the number of continuing undergraduate students who confirm their conditional registration for their course(s) to be taken in the following year (see paragraph 170). Table 8 shows that the rate of non-confirmation of initial or conditional registration by new and continuing students has increased steadily, year by year, as fee levels have gone up.

Table 8 Non-confirmation of registration by undergraduate students, compared with fee levels

Year	Tuition Fee £	Summer School Fee £	Non-confirmation of initial registration by new students (as a % of all new students)	Non-confirmation of conditional registration by on-going students (as a % of all continuing students)
1971	20	25	19.15	-
1972	20	25	23.34	8.10
1973	25	30	24.95	9.95
1974	25	34	24.31	8.42
1975	25	38.5	26.02	10.80
1976	40	49	28.72	13.63
1977	45	49	24.62	14.86
1978	52	50	25.61	15.51
1979	55	52	29.74	15.80
1980	67	62	27.90	16.51
1981	98	75	29.13	18.22

183. The seriousness of these figures is that they indicate a higher level of student drop-out rate. Blacklock (1981) shows that whereas a number of continuing students clearly do not need to register for further courses (because they have gained sufficient credits for a degree), the failure to do so on the part of students who have not completed a degree programme is more likely to be because they feel themselves prevented from studying by domestic or work difficulties (70%), and not because they are tired of studying or uncommitted to their selected course(s). In her survey, about one in three of the students who did not register mentioned finance as a reason for not continuing, including lack of money at the time the fees demand was made; higher fees than those expected; other financial commitments of greater importance to them than their OU studies; the fact that older students found their pensions were not keeping pace with inflation; the need to economise given current unemployment or the threat of it; and uncertainty about their ability to meet future OU costs. Generally speaking, financial hardship was much more likely to be found among women students than among men (proprotionately about twice as many women as men reckoned to have severe financial hardship in meeting the fees and expenses of Open University study). One in ten housewives claimed 'severe hardship', as against six in a hundred blue collar workers and just over one in a hundred white collar workers.

184. There is also evidence, although somewhat dated, that the financial cost of study with the Open University deters some potential applicants. Woodley and McIntosh (1977: 21) found that 24.6 percent of respondents to a questionnaire placed in 103,800 Guide for Applicants for Undergraduate Courses 1974, and aimed at those who decided not to apply for entry gave, as one of their reasons, the fact that the financial commitment was too great.

185. A major difference between the position of undergraduate students at the Open University and those at other British universities is that the former are not eligible for mandatory grants from Local Education Authorities (LEAs) in support of their studies. LEAs have always been able to exercise their own discretion in helping Open University students with their fees. However, given their financial problems, the LEAs have, not surprisingly, cutback on the level of support they have given students, so that, whereas in 1974 58 percent of English and Welsh LEAs would pay the full summer school fees of students, by 1980 only 31 percent were doing so. In 1981 the situation had deteriorated further, to 28 percent, and the indications are that this trend will continue.

186. Against the decline in the level of LEA support, the University has itself provided some financial assistance to students. In 1979 it helped in 2,460 cases where students asked for financial assistance; in 1980 it helped in 3,017 cases, and expended £146,000 on the activity. However, there is a limit to the amount which the University can do by itself.

187. The overall evidence is that the cost of undergraduate study with the Open University is a significant problem for many applicants and students.

188. Comparable studies on the effects of student costs in the associate student/continuing education, and higher degree, programmes, have not been made. However here, too, costs and fees have been increasing, and the empirical experience of the areas concerned is as follows: Associate student numbers appear, surprisingly, to have remained remarkably steady, though this means that there has not been the hoped-for increase. One must, however, remember the high level of fees - see paragraph 59 - and the fact that about two-thirds of the students pay their own. As regards postgraduate students, there has been a drop in those who are part-time since these too largely pay their own fees. There has been little effect, so far, on full-time students, since these are largely funded by various bodies. Any cut in the finances of the latter (for example, the Social Science Research Council) would obviously reduce the number of students receiving assistance, be it at the Open University of elsewhere.

CHARACTERISTICS OF APPLICANT AND STUDENT POPULATIONS:

Undergraduate Programme

189. Broadly speaking, the characteristics of Open University applicants are very similar to those individuals who eventually register to take a foundation course. There are, however, some slight differences. In particular, those with lower educational qualifications are more likely to decline the offer of a place and therefore form a smaller proportion of students than of applicants.

190. The four tables (9-12) below show a break-down of certain characteristics of applicants, by year of application, as follows: by occupation (Table 9), Sex (10), highest educational qualification (11), and age (12).

191. One of the most noticeable factors is the high percentage of teachers and lecturers who were attracted to the Open University in its early days, and the steady decline of this group as a proportion of total applicants since then. In 1970, over one in three applicants were teachers. By 1974 this had fallen to one in four; by 1977 about one in five; while in 1981 it was only one in seven. The early demand from teachers came particularly from the large pool of non-graduates amongst them. Britain has been moving increasingly towards an all-graduate profession, although in 1978 (the latest year for which detailed figures are available), there remained some 298,000 non-graduate serving teachers in schools in England and Wales, of whom about 150,000 were under 40 years of age. Of these, some 65,000 were women aged between 25 and 29, only 38,000 of whom might be expected to remain in the profession after the age of 30. With the planned reduction in the number of teachers, from 438,000 in 1978 to 424,000 in 1981, and thence to 386,000 in 1983/84 (according to the Public Expenditure White Paper of March 1981), one can assume that the non-graduate pool will decline even further, and that this aspect of the University's work will become less important.

192. The period 1970-1981 has also seen a marked increase in the number of students 'at home' or 'not working'. By 1981, one in four (26 percent) of students fell into these categories, compared with only one in ten (11.7 percent) in 1971. Otherwise, there has been relatively little change in the proportion of various occupational groups amongst applicants, particularly since 1971.

TABLE 9 ALL APPLICANTS BY OCCUPATION IN YEAR OF APPLICATION 1970 - 1981

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
No of Students = 100%	40,817	34,222	30,414	33,220	49,550	50,340	48,234	44,839	41,321	45,125	42,493	45,667
	%	%	%	%	%	%	%	%	%	%	%	%
At home	9.2	11.0	13.0	14.6	14.3	13.8	13.8	14.4	14.4	14.3	16.8	17.8
Armed Forces	1.7	1.6	2.2	2.6	2.5	2.8	2.5	2.7	2.5	2.7	2.7	2.7
Admin. and managers	6.9	4.6	4.3	3.8	4.3	4.6	4.5	4.5	4.6	4.9	2.4	4.4
Education	35.9	30.2	29.6	29.0	24.0	23.1	23.3	21.2	21.2	18.1	16.6	13.9
Professions and arts	11.9	12.6	11.6	11.7	11.1	11.5	11.5	12.2	11.9	11.7	12.4	11.4
Scientists and engineers	8.0	4.4	3.7	3.0	3.1	3.2	2.9	2.8	2.8	2.9	3.2	2.9
Technical personnel	7.5	11.9	11.2	9.8	10.0	10.2	10.2	9.9	10.3	11.3	11.2	10.5
Skilled trades	1.8	3.0	3.1	3.0	4.0	4.1	3.7	3.5	3.6	4.9	4.8	4.6
Other manual	2.8	2.3	2.2	2.5	3.4	3.5	2.9	2.9	3.0	3.7	4.0	3.4
Communications and transport		1.3	1.6	1.5	2.1	2.2	2.1	2.1	2.0	2.5	2.5	2.5
Clerical and office	8.2	9.4	9.8	10.1	11.7	11.3	11.4	11.7	11.6	11.5	12.3	11.1
Shop and personnel	3.4	4.4	4.4	4.2	5.4	5.3	5.2	5.0	5.0	5.7	6.4	6.2
Not working	2.5	3.1	3.1	4.1	3.9	4.3	5.9	6.8	6.9	5.8	4.2	8.2
In institutions	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.5	0.4

TABLE 10 SEX OF APPLICANTS

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
No of Applicants = 100%	40,817	34,222	30,414	33,220	49,550	50,340	48,234	44,839	41,321	45,125	42,493
	%	%	%	%	%	%	%	%	%	%	%
Male	70.0	67.1	62.9	57.4	58.2	58.4	58.1	55.7	55.7	57.8	54.5
Female	30.0	32.9	37.1	42.6	41.8	41.6	41.9	44.1	44.3	42.3	45.0

TABLE 11 APPLICANTS BY LEVEL OF HIGHEST EDUCATIONAL QUALIFICATION ATTAINED AT APPLICATION DATE (%) 1973 - 1981

No of Students = 100%	1973	1974	1975	1976	1977	1978	1979	1980	1981
	33,220	49,550	50,340	48,234	44,839	41,321	45,125	42,493	45,667
No formal educational qualifications	9.3	12.6	11.3	10.4	10.6	9.6	11.0	10.8	11.1
CSE, RSA, or school leaving cert. in 1 or more subjects	3.2	3.8	3.6	3.6	3.7	3.7	4.5	3.6	4.4
GCE 'O' Level, SCE 'O' grade, school cert. or equivalent in 1-4 subjects	9.3	10.4	10.4	9.8	10.4	10.3	11.9	23.6	23.4
GCE 'O' Level, SCE 'O' grade, school cert. or equivalent in 5 or more subjects	10.9	11.7	11.4	11.2	11.5	11.4	11.5		
GCE 'A' Level, SCE 'H' grade, higher school cert. or equivalent in 1 subject	4.2	4.3	4.8	5.0	4.8	4.8	4.9	16.6	16.1
GCE 'A' Level, SCE 'H' grade, higher school cert. or equivalent in 2 or more subjects	9.9	9.5	10.3	10.7	10.3	10.4	10.3		
ONC/OND	3.4	3.8	4.1	4.1	4.0	4.1	4.8	8.2	8.4
HNC/HND	6.2	6.3	6.6	6.7	6.2	6.4	6.5	7.8	8.6
Teachers Cert. or equivalent	27.4	22.4	21.5	22.2	21.3	21.5	18.1	16.1	13.9
University dep. or equivalent based on at least 1 year's full time study	8.5	7.3	7.5	7.2	7.3	7.0	6.7	5.1	5.4
University first degree	6.3	5.7	6.4	6.9	7.8	8.6	7.6	7.0	7.5
No information	1.4	2.2	2.1	2.2	2.1	2.2	2.1	0.1	0.1
Postgraduate degree								1.1	1.1

TABLE 12 APPLICANTS BY AGE IN YEAR OF APPLICATION

Application for (%)

Age Group	1974	1975	1976	1977	1978	1979	1980	1981
21 - 25	25.2	23.3	22.4	21.8	21.6	21.0	20.3	19.9
26 - 30	29.1	28.4	28.6	29.6	28.4	27.9	27.4	26.1
31 - 40	27.1	27.8	29.1	28.7	29.6	31.7	33.3	34.8
41 - 50	13.6	14.2	13.9	13.3	13.0	12.8	12.6	12.7
51 - 65	4.9	5.7	5.9	5.9	6.5	5.9	5.8	5.7
65+	0.3	0.5	0.5	0.6	0.8	0.7	0.6	0.7

193. The University has attracted relatively few applicants from 'working class' occupations. Only about 10 percent of them came from the skilled trades, 'other manual' and communications and transport groups. In this connection, it should be pointed out that degree-level opportunities for study in the United Kingdom are normally available to a highly selected ten percent of school leavers. As McIntosh, Woodley and Morrison (1980: 44) point out, 'The barriers to access - educational, financial and cultural - are formidable and unlikely to be overcome by many other than the most able and motivated of people from such disadvantaged backgrounds'. McIntosh and Calder (1975: 113) remarked that only a minority of Open University students appear 'to have been genuinely disadvantaged at the initial level, i.e. not having been given the opportunity to study at a grammar or equivalent level school', and that this disadvantage was more common amongst men than women. Interestingly, they showed that the majority of Open University students (four out of five) have gone on to do some kind of post-school education as adults - either taking 'further' or 'adult' education courses, or teaching or some other vocational qualification.

194. McIntosh and Calder (1975: 133) also note that many Open University students from low occupational status backgrounds have deviated greatly from what one might describe as the expected route through education for this group, not only by entering high status schools, but also by obtaining a high level of post-school qualification; and that even those who 'initially attended low status schools and left school early have "caught up" on their schooling since, gaining high level post-school qualifications'. The same researchers also found that the educational background of the parents of Open University students appears to be similar to that of the adult population as a whole, and that this is in contrast to the parental background of conventional university students. Thus whereas in 1966, 64 percent of all economically active males fell broadly into the category of manual workers, only 29 percent of conventional university entrants had fathers in these categories in 1971. On the other hand, the middle classes, comprising 14 percent of economically active males, contributed 44 percent of conventional entrants. In contrast, although 82 percent of Open University students came from the middle classes, 52 percent of them gave the occupation of their father during the later years of their own schooling as in the 'manual worker' categories, and a further 28 percent in the lower grade 'white collar' jobs. Indeed only 20 percent had fathers in the 'middle class' categories (McIntosh and Calder, 1975: 137-8). "OU students therefore appear to be different from conventional students in that the parental background of OU students is nearer to that of the general population both in terms of education and occupation" (ibid.; 140).

195. Table 10 shows that the number of women who applied to the Open University in the first year was quite low, but that since 1973 they have formed between 41 and 45 percent of all applicants. By no means all of these women are 'housewives' in the 'at home' category. McIntosh et.al. (1980: 44) reported important increases in the clerical and office group, and showed that female teachers continued up until 1978 to form an important element, whereas the proportion of male teachers has declined. In this respect, McIntosh (1978: 6) noted that in England and Wales 'teacher training has been for years the single most significant avenue to higher education for women.' But the qualification has not been at graduate level, and the entry qualification has typically been five 'O' levels (General Certificate of Education, Ordinary level, gained at age 16), lower than that for a degree. The majority of such women could not have got into university at the time of leaving school, even though they have subsequently been able to qualify at teachers'.

196. The proportion of women applying to enter the University does not match that in the population as a whole. The proportion of women applicants and provisionally registered new students in the Open University is, however, a little higher than that of women undergraduates in the United Kingdom as a whole (30 percent in 1969 rising to 39 percent in 1979).

197. Table 11 shows the educational qualifications of applicants. Generally speaking, applicants with low level qualifications are more likely not to accept the offer of a place than those with better ones. However, the difference is not great. For example, in 1978, 35 percent of applicants held nothing higher than G.C.E. 'O' levels, whereas 34 percent of the intake was in this situation. In 1981 this latter figure had risen to 38.9 percent. The total number of applicants with a Teacher's Certificate, or equivalent, has dropped, in line with the decreasing number of teachers entering the University (see paragraph 191). On the whole, (and bearing out a point made in paragraph 193) while the number of students who can be described as educationally 'disadvantaged' are relatively few, research has shown that many Open University students could be described as 'initially disadvantaged' in the sense that many left school without 'A' levels, or even with no qualifications at all (see Woodley, 1981: 36).

198. Table 12 shows the age of applicants. The two younger age groups are steadily decreasing as a proportion of all applicants. Only that in the 31-40 span is increasing. The reasons for this are not clear, but may have something to do with the fact that people with both disposable income and the inclination to study tend to be older.

Associate Students

199. As already noted in paragraph 167, Associate students (with the exception of those taking the Diploma in Reading Development) are registered for one or more (but usually one) individual courses, on a "one-off" basis. It follows that the characteristics of the student population will tend to depend on the course(s) being studied to a greater degree than is the case in the undergraduate programme. This is particularly true of INSET courses, which are aimed at in-service teachers.

200. Tables 13, 14 and 15 show the occupation, highest educational qualification, sex and median age of registered students in the associate student/continuing education programme. This analysis excludes those on community education courses.

201. Considering the nature of the associate student programme, and comparing it with the undergraduate programme, it is not surprising that a greater proportion of such students are working, and that there are, for instance, fewer of them in the 'housewives' or 'at home' category. A much higher proportion come from teaching, and from the professions and arts, than is the case with the undergraduate population as a whole. And fewer students come from the clerical and office staff category. The recent decline in the proportion of teachers registered as associate students has coincided with the deterioration of the national economic situation, and with a shift in emphasis nationally from attendance by teachers at courses embracing "job-embedded" and "school-focused" INSET activities.

202. A much higher proportion of students in the associate student programme already have a university first degree (22.1 percent in 1980 compared with 5.6 percent, in the same year, in the undergraduate programme), although this is in part explained by the practice (till 1981) of restricting the admission of graduates to the undergraduate programme. Generally speaking fewer associate students have qualifications of GCE 'O' level standard and below.

TABLE 13 ASSOCIATE REGISTERED STUDENTS OCCUPATION AT COMMENCEMENT OF STUDIES

No of Students = 100%	1975	1976	1977	1978	1979	1980
	4,118	4,578	5,576	6,923	8,778	7,889
	%	%	%	%	%	%
Housewives	5.2	5.8	7.4	8.3	9.0	10.1
Armed Forces	0.8	0.8	1.2	0.8	0.8	1.0
Administrators and managers	4.3	9.4	6.3	4.4	6.0	5.1
Teachers and lecturers	47.9	47.3	49.0	54.7	43.3	38.7
The professions & the arts	21.4	14.7	12.5	10.5	15.6	16.9
Qualified scientists & engineers	5.8	5.3	5.2	4.1	4.1	5.1
Technical personnel : inc. data processing, draughtsmen & technicians	6.1	7.5	7.3	6.0	7.3	7.4
Electrical, electronic, metal & machines, engineering & allied trades	1.0	1.1	1.3	1.3	1.7	1.9
Farming, mining construction & other manufacturing	0.5	0.9	0.8	1.0	1.2	1.3
Communications & transport: air sea, road & rail	0.6	0.7	0.7	0.6	1.0	0.9
Clerical and office staff	4.1	3.8	4.1	4.0	4.2	5.1
Shopkeepers, sales services, sport & recreation workers	0.7	1.2	1.6	1.4	1.7	2.4
Retired, independent means, not working (other than housewives), students	1.2	1.3	2.3	2.9	3.3	3.8
In institutions, e.g prison, chronic sick, etc	0.5	0.2	0.2	0.1	0.4	0.3
No information	0.0	0.1	0.0	0.0	0.4	0.0

TABLE 14 ASSOCIATE REGISTERED STUDENTS LEVEL OF HIGHEST EDUCATIONAL QUALIFICATION GAINED

	1975	1976	1977	1978	1979	1980
No of Students = 100%	4,188	4,578	5,576	6,923	8,778	7,889
	%	%	%	%	%	%
No formal educational qualifications	5.7	5.5	4.1	3.6	5.9	5.9
CSE, RSA, or school leaving certificate in 1 or more subjects	1.3	1.3	1.5	1.1	1.6	2.0
GCE 'O' Level, SCE 'O' grade, school cert. or equivalent in 1-4 subjects	3.7	3.7	3.5	3.3	5.4	5.2
GCE 'O' Level, SCE 'O' grade, school cert. or equivalent in 5 or more subjects	6.1	6.1	6.0	5.4	6.9	7.8
GCE 'A' Level, SCE 'H' grade, higher school cert. or equivalent in 1 subject	1.9	1.7	1.8	1.7	2.4	2.5
GCE 'A' Level, SCE 'H' grade, higher school cert. or equivalent in 2 or more subjects	3.8	4.5	5.1	4.5	5.5	5.8
ONC/OND	1.9	2.8	1.9	1.6	2.2	2.7
HNC/HND	4.6	4.5	3.9	3.0	3.5	4.3
Teachers Certificate or equivalent	27.5	27.7	27.5	29.0	23.8	21.2
University diploma or equivalent based on at least one year's full time study	13.0	8.9	7.3	6.0	6.2	6.5
University first degree	16.7	19.0	21.1	23.8	22.4	22.1
Higher Degree, of CNAA or British University	3.7	4.0	4.4	5.4	4.9	5.0
Postgraduate diploma or equivalent	10.0	10.0	11.8	11.5	9.1	8.4

TABLE 15 SEX AND MEDIAN AGE OF REGISTERED ASSOCIATE STUDENTS

	1975	1976	1977	1978	1979	1980
No of students = 100%	4,118	4,578	5,576	6,923	8,778	7,889
	%	%	%	%	%	%
Male	53.5	55.6	53.7	48.2	49.1	49.5
Female	46.4	44.4	46.3	51.8	50.9	50.5
Median age (in years)	35	35	33	32	34	33

203. Interestingly, a higher proportion of associate students are women than is the case in the undergraduate programme, reflecting to some extent the extent to which the courses are aimed at occupational groups (teachers, social and health care workers) with a high proportion of women in them.

CHARACTERISTICS OF THE STUDENT POPULATION

Higher Degree Students

204. As we saw, the number of applications for entry to postgraduate studies has remained fairly constant over the years (paragraph 179). The University has been constrained in the number of students which it can have registered at any one time, either as full-time, part-time internal (that is, members of its staff), and part-time external, students. Nevertheless, the numbers registered have steadily increased (Table 16).

205. Tables 17, 18 and 19 give information on the occupation, highest educational qualification, sex and age of those part-time external postgraduate students who were registered on 1 October 1980. It will be noted that a high proportion of the students are lecturers (28.2 percent), teachers (22.7 percent), qualified scientists and engineers (12.6 percent), administrators and managers (13.0 percent) or in the professions and arts (7.2 percent). Very few come from any other occupational group. Nine in ten of them have a first or higher university degree (85.6 percent), and the majority are males (75.5 percent).

TABLE 16 THE NUMBER OF REGISTERED HIGHER DEGREE STUDENTS AS AT 1 OCTOBER OF EACH YEAR

	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Full time	1	6	12	22	31	27	35	50	69	87	117	110
Part-time internal	3	11	19	31	33	35	44	55	66	58	79	87
Part-time external	-	-	-	68	140	181	239	285	350	411	459	487
Total	4	17	31	121	204	243	318	390	485	556	655	684

TABLE 17 HIGHER DEGREE STUDENTS REGISTERED ON 1 OCTOBER 1980: OCCUPATION.

No. of student - 100%	485
Housewives	5.2
Armed forces	1.0
Administrators & managers	13.0
Teachers	22.7
Lecturers	28.2
The professions & the arts	7.2
Qualified scientists & engineers	12.6
Technical personnel: inc. data processing, draughtsmen & technicians	4.3
Electrical, electronic, metal & machines, engineering & allied trades	0.2
Farming, mining, construction & other manufacturing	0.4
Communications & transport: air, sea, road & rail	0.4
Clerical & office staff	0.8
Shopkeepers, sales, services, sport & recreation workers	0.2
Retired, independent means, not working (other than housewives), students	3.7
In institutions, e.g. prison, chronic sick, etc	-

TABLE 18 PART-TIME EXTERNAL HIGHER DEGREE STUDENTS REGISTERED ON 1 OCTOBER 1980 : HIGHEST EDUCATIONAL QUALIFICATIONS.

No of students = 100%	485
	%
No formal educational qualifications	0.4
GCE 'O' level or equivalent	-
GCE 'A' level or equivalent	0.6
ONC or OND	-
HNC or HND	2.1
Teachers Cert. or equivalent	1.4
Professional qualifications	6.0
University diploma or equivalent based on at least one year's full time study	3.9
University first degree	
First class	8.2
Upper second class	17.7
Second class undivided	3.3
Lower second class	15.1
Third class	4.3
Pass/ordinary	14.8
Overseas	2.5
Total	(66.0)
University higher degree	
Master's	19.4
Doctorate	0.2
Total	(19.6)

TABLE 19 HIGHER DEGREE STUDENTS REGISTERED ON 1 OCTOBER 1980: SEX AND AGE

No of students = 100%	485
	%
Male	75.5
Female	24.5
19 - 25	1.9
26 - 30	10.5
31 - 35	22.3
36 - 40	19.0
41 - 45	14.2
46 - 50	12.2
51 - 55	9.9
56 - 60	6.6
61 - 65	2.3
66 - 70	1.0
Over 70	0.2

STUDENT PROGRESS AND DROP-OUT AT THE OPEN UNIVERSITY

The Undergraduate Programme

206. Drop-out, student progress and graduation rates are of prime concern in any innovative educational system. Open University studies of the first two (as of course the third) have concentrated on undergraduates.

207. Applicants who accept the offer of a place in this programme pay a provisional registration fee (see paragraph 169). After three months study, the 'provisional registration' period, they are asked to pay the final tuition fees for the rest of the year (although there are facilities for paying these by instalments). The decision whether or not to continue is made entirely by the student. None are debarred from continuing on academic grounds (but see paragraph 215, last sentence). On the other hand, their experience during the provisional registration period may lead the student to decide not to continue, and this may be for a variety of reasons - perhaps because they do not like the courses or the method of study, perhaps because they cannot fit the study commitments into their lifestyle, perhaps for economic and financial reasons. The proportion of new students who decide not to continue is shown in Table 8 (paragraph 182). The majority (seven in ten) decide to continue. However, as Table 8 indicates, the proportion not continuing has risen (from around one in four in the period 1972 to 1978 to about three in ten since 1979).

208. Between final registration in April and completion of the academic year (marked by the end of course examinations in November), there are a number of hurdles to be surmounted en route to successful completion. These include submission of assignments and attendance at the residential summer schools, which is an obligatory part of all foundation, and many higher level courses. Students who fall behind in their studies obviously run the risk of dropping-out.

209. Table 20 shows the number of finally registered students in each cohort who continued to be registered in the following year, and the number who have graduated with BA and BA (Honours) degrees.

TABLE 20 UNDERGRADUATE STUDENT PROGRESS AT THE OPEN UNIVERSITY

(a) Number of finally registered students by cohort.

	Cohort												
	71	72	73	74	75	76	77	78	79	80	81	82	Total
71	19,581												19,581
72	16,186	15,716											31,902
73	13,354	12,390	12,680										38,424
74	10,580	10,488	10,232	11,336									42,636
75	8,055	8,287	8,767	9,419	14,830								49,358
76	6,095	6,454	6,661	7,872	11,681	12,231							50,994
77	4,248	4,834	5,096	5,982	9,905	10,186	15,146						55,397
78	3,014	3,380	3,851	4,610	7,636	8,616	12,049	15,622					58,778
79	2,285	2,480	2,860	3,569	5,923	6,617	10,138	11,853	14,854				60,579
80	1,663	1,828	2,070	2,543	4,553	5,149	7,579	9,755	11,845	14,022			61,007
81	1,156	1,290	1,442	1,760	3,156	3,948	5,741	7,056	9,326	10,683	14,410		59,968

(b) Number of students in each cohort continuing from one year to the next, as a percentage of finally registered students in each cohort.

	Cohort											
	71	72	73	74	75	76	77	78	79	80	81	
Year 1 (100%)	19,581	15,716	12,680	11,336	14,830	12,231	15,146	15,622	14,854	14,022	14,410	
Year 2	82.66	78.84	80.69	83.06	78.77	83.28	79.55	75.87	79.74	76.19		79.87
3	68.20	66.73	69.14	69.44	66.79	70.44	66.94	62.44	62.78			66.99
4	54.03	52.73	52.53	52.77	51.49	54.10	50.04	45.77				51.68
5	41.14	41.07	40.19	40.67	39.94	42.10	37.90					40.43
6	31.13	30.76	30.37	31.48	30.70	32.28						31.12
7	21.69	21.51	22.56	22.43	21.28							21.69
8	15.79	15.78	16.32	15.53								15.76
9	11.67	11.63	11.37									
10	8.49	8.21										
Year 11	5.90											

c) BA Ordinary graduates by cohort 1972/81

Year	1971 (A)	1972 (B)	1973 (C)	1974 (D)	1975 (E)	1976 (F)	1977 (G)	1978 (H)	1979 (K)	1980 (L)	ORDINARY GRADUATES	TOTAL STUDENTS
1971												19581
1972	898										898	31902
1973	3318	322									3640	38424
1974	2636	2292	252								5180	42636
1975	1649	1743	1859	217	1						5469	49358
1976	1259	1349	1495	1693	229	2					6027	50994
1977	561	1122	1066	1251	1814	177	5				5996	55397
1978	323	549	881	790	1364	1423	192	10			5532	58778
1979	198	285	448	832	1082	1097	1700	159	17		5818	60579
1980	124	200	268	436	1101	892	1266	1570	170	4	6031	61007
1981*	60	90	150	215	575	970	1025	1150	1700	165	6100	
Total Graduates by cohort 71-80	10966	7862	6269	5219	5591	3591	3163	1739	187	4	44591	
Graduates as % of finally registered students in cohort	56.00 (19581)	50.03 (15716)	49.44 (12680)	46.04 (11336)	37.70 (14830)	29.34 (12231)	20.88 (15146)	11.13 (15622)	1.26 (14854)			

* estimate

d) BA Ordinary graduates cumulative totals by cohort

Cohort / Year	A		B		C		D		E		F		G		H		K	
	Cum've	%	Cum've	%	Cum've	%	Cum've	%	Cum've	%	Cum've	%	Cum've	%	Cum've	%	Cum've	%
71																		
72	878	4.59																
73	4216	21.53	322	2.05														
74	6852	34.99	2614	16.63	252	1.99												
75	8501	43.41	4357	27.72	2111	16.65	217	1.91										
76	9760	49.84	5106	36.31	3606	28.44	1910	16.85	230	1.55								
77	10321	52.71	6828	43.95	4672	36.85	3161	27.88	2044	13.78	179	1.46						
78	10644	54.36	7377	46.94	5553	43.79	3951	34.85	3408	22.98	1602	13.10	197	1.30				
79	10842	55.37	7662	48.75	6001	47.33	4783	42.19	4490	30.28	2699	22.07	1897	12.52	169	1.08		
80	10966	56.00	7862	50.03	6269	49.44	5219	46.04	5591	37.70	3591	29.34	3163	20.88	1739	11.13	187	1.26

e) BA (Honours) degree graduates by cohort

Year	1971 (A)	1972 (B)	1973 (C)	1974 (D)	1975 (E)	1976 (F)	1977 (G)	1978 (H)	1979 (K)	TOTAL HONOURS
1971	-									-
1972	-									-
1973	14									14
1974	218	6								224
1975	371	71	6							448
1976	501	205	70	5	1					782
1977	436	300	165	47	3	1				952
1978	334	266	228	143	55	3	1			1030
1979	276	238	203	162	143	36	7			1065
1980	206	201	213	200	208	103	53	9	1	1194
1981*	130	145	170	190	220	155	150	53	5	1220
Total Graduates by cohort 71-80	2356	1287	885	557	410	143	61	9	1	5709
Graduates as a % of finally registered students in cohort 71-80 /	12.03 (19581)	8.19 (15716)	6.98 (12680)	4.91 (11336)	2.76 (14830)	1.16 (12231)	0.40 (15146)			

* estimate

8.1

8.1

f) BA Honours graduates cumulative by cohort

Cohort	A		B		C		D		E		F		G		H	
Year	Cum've	%	Cum've	%	Cum've	%	Cum've	%	Cum've	%	Cum've	%	Cum've	%	Cum've	%
71																
72																
73	14	0.07														
74	232	1.18	6	0.04												
75	603	3.08	77	0.49	6	0.05										
76	1104	5.64	282	1.79	76	0.60	5	0.04								
77	1540	7.84	582	3.70	241	1.90	52	0.46	4	0.03						
78	1874	9.57	848	5.40	409	3.70	195	1.72	59	0.40	4	0.03				
79	2150	10.98	1086	6.91	672	5.30	357	3.15	202	1.36	40	0:33	8	0.05		
80	2356	12.03	1287	8.19	885	6.98	557	4.91	410	2.76	143	1.16	61	0.40	9	0.06

210. These results far exceed the early forecasts (in, for example, The Times Educational Supplement) that completion rates at the Open University would be unlikely to exceed ten percent. No less than 56 percent of the first (1971) cohort have graduated with their BA (Open) degree, and a number are still studying. Later cohorts also show every sign of doing well.

211. Graduation rates depend, at least in part, on the number of credits a student has to take in order to graduate. BA degree students are required to take six credits; those aspiring to BA Honours, eight. However, as we have seen, students can obtain credit exemptions (paragraph 54), a large number of which have in fact been awarded (Table 3). Students with the maximum of 4 Directly Transferred Credits (see paragraph 55) can graduate in one further year of study, with the Open University, if they successfully complete two full credit equivalents of courses therein. Those with two or three credit exemptions can graduate in two years of study, since they can take up to two full credit equivalents in any one year, in attaining the six needed for a BA degree. The minimum period needed to graduate without any advanced standing, is therefore three years; but, again, only if two full credit equivalents in courses are successfully completed in each consecutive year. The foregoing gives some indication of the most rapid potential exit patterns of students as graduates. But, as has been made clear, this depends to a large extent on the number of credits they registered for and pass each year; and, as Table 21 shows, the average for this has been declining since 1971.

TABLE 21 AVERAGE NUMBER OF CREDITS FOR WHICH STUDENTS REGISTER

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
New Students	1.11	1.05	1.05	1.01	1.06	1.05	1.05	1.04	1.03	1.03	1.03
Continuing Students	-	1.30	1.16	1.10	1.04	1.02	1.00	0.98	0.95	0.94	0.93
All Students	1.11	1.18	1.12	1.08	1.04	1.03	1.01	0.99	0.97	0.96	0.95

212. McIntosh, Woodley and Morrison (1980: 51-55) examined graduation rates amongst certain sub-groups of the 1971 student population. They show, for example, that those who had at least the normal educational qualifications for entry to a conventional university (2 'A' levels) were likely to graduate more quickly than those who had not. By the end of 1978, 62.5 percent of the former had graduated. Amongst the unqualified students, the proportion was 39.5 percent. These findings are not surprising. They suggest that the proportions now going on to graduate from each cohort are such that the 'unqualified' are unlikely to catch up with the qualified group. Nevertheless, 'four out of ten of those students who, judging by the educational qualifications, were not "university material" had obtained a degree' (McIntosh et al., 1980: 55).

213. McIntosh et al. also show that, of the 1971 intake, more women (59 percent of all women) had graduated than men (52 percent of all men) (ibid.; 55).

214. A major factor affecting graduation rates is the proportion of students in the various occupational groups who reach their goal. Of the 1971 intake, teachers fared best with around seven out of ten (69.5 percent) gaining their degree by 1978. The proportion of housewives is not far behind (60.5 percent), but the corresponding figures for clerical and office staff are only 41 percent (four in ten), and for manual workers only 26 percent.

215. One factor which McIntosh et al. identify is the proportion of students who withdraw from the Open University, but who in theory could return at some time to resume their studies. Initially, the University's regulations governing student progress allowed withdrawal for an indefinate period of time. Clearly, this is an important element which provides students with a great deal of flexibility. However, it meant that in 1978, while there were 58,788 students actively registered on courses, there were a further 40,000 'dormant' ones who could, and might, resume their studies in years to come. McIntosh et al., (1980: 56) showed that some 84 percent of the 1971 entry who finally registered in that year studied without a break. However, 16 percent studied discontinuously; of these latter, 66 percent had a single rest period of one year; 16 percent of two years; 12 percent of three, four or five years; and 6 percent two or more such breaks of at least one year. More recently, the University has decided that, with effect from 1984, a student shall be de-registered if he or she fails to pass a Foundation Course (or subsequently, at least a half-credit course) in any four successive years.

216. Figure 3 shows the number of graduates as a cumulative proportion of the number of students initially registered in each cohort. Figure 4 is a rather crude Bar Chart which shows for each cohort the number of Ordinary Degree graduates at the end of 1980, the number of students still studying in 1981, and the number without a degree not studying in 1981, as a percentage of finally registered students in the cohort. In interpreting this figure it should be borne in mind that (1) some of the students studying in 1981 will already have obtained their BA degree and will be studying for an Honours degree (and hence are counted twice in these figures), and (2) some of the inactive students will be 'genuine' drop-outs who will not return, while others may be temporary inactive and have the intention of re-entering the system in a subsequent year.

217. It is clear that large numbers of students can study successfully at a distance - although the Open University's experience (see paragraph 175) is that younger ones do not do as well as those who are older. By the end of 1980, 10,966 of the 19,581 students who finally registered in 1971 had gained a BA degree. That is, more than half (56 percent) of them had done so. 12 percent of the cohort had gained a BA (Honours) degree. The University had produced 44,591 BA degree graduates in the period 1971-80, while 5,709 (just under an eighth) had gone on to Honours. These figures represent a real achievement.

218. Analysing the University's success in reducing drop-out rates, Sewart (1978) and Keegan (1980: 51) both point to the importance of the institution's 'continuity of concern for students in a system of learning at a distance'. Elsewhere, Keegan (1980: 52) and Sewart (1981: 12) attribute the success of the University to its ability to implant a cohesive balance between distance teaching (the development of high quality learning materials) and distance learning (the provision of a comprehensive support for student learning from the materials provided).

FIGURE 3: PROPORTION OF FINALLY REGISTERED STUDENTS GRADUATING WITH A BA DEGREE, BY COHORT.

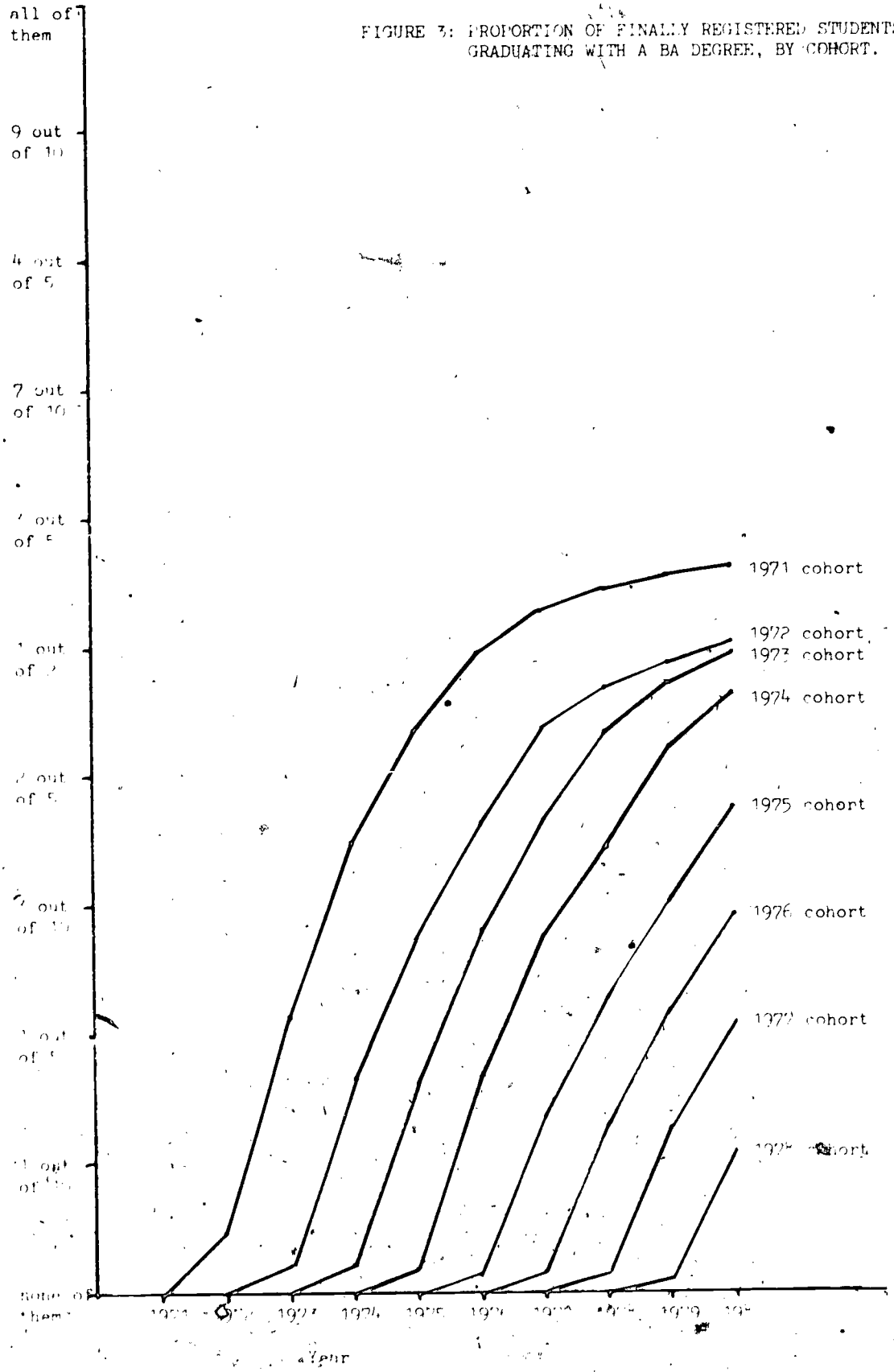
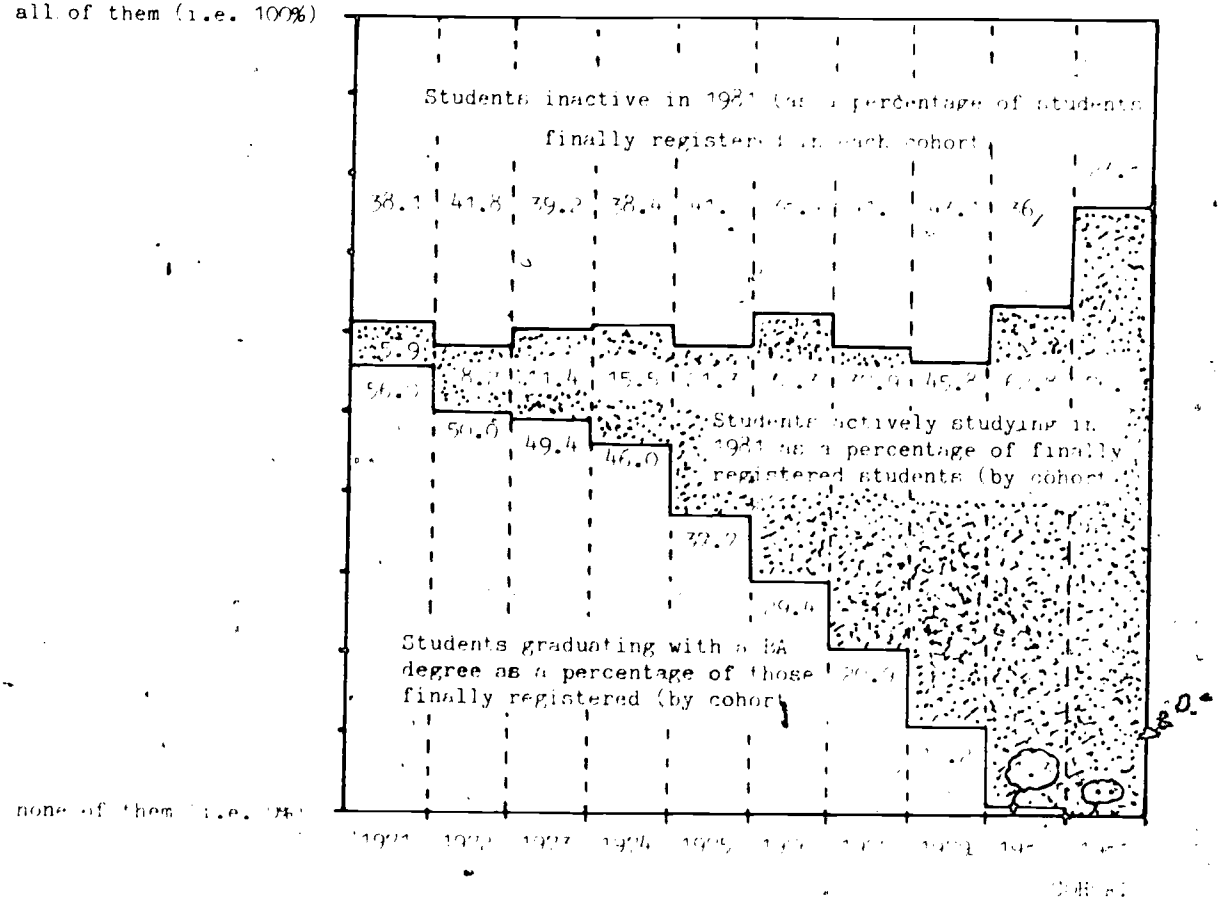


FIGURE 4. STUDENT PROGRESS AT THE OPEN UNIVERSITY, 1971-1981



** = not available

219. In spite of its successes, however, the University is not complacent about drop-out. As the figures above indicate, while 50 to 60 percent of each cohort are likely to gain a degree, 40 to 50 percent will not. There is evidence to show that those without previous educational qualifications, or with low ones, are less likely to gain a degree than those who are qualified. Pentz (1981: 11) has pointed out that students with previous tertiary level education are about thirty times more likely to gain a science degree than those whose education stopped at no more than five 'O' levels. Moreover, while the average pass rate on the Science foundation course has been 72 percent, taken over the years 1971-80, that for second level science courses over 1977-80 was only 63 percent, and 60 percent for those at third level courses.

220. Behind Pentz's comments lies a more general concern at the proportion of finally registered students who, firstly, sit the end-of-course examination, and, secondly, pass the course. Table 22 summarises the position.

TABLE 22 THE PROPORTION OF STUDENTS EXAMINED AND AWARDED PASSES, BY LEVEL OF COURSE

	% registered student examined		
	Foundation Level Courses	Second Level Courses	Third and Fourth Level Courses
1971	81.4	-	-
1972	78.1	75.2	-
1973	80.7	79.0	84.2
1974	82.0	78.0	79.1
1975	81.2	73.6	75.3
1976	83.9	73.4	73.8
1977	83.4	71.8	72.7
1978	82.8	71.7	70.4
1979	84.5	69.9	56.9
1980	82.0	71.1	65.7

	% examinees awarded passes		
	Foundation Level Courses	Second Level Courses	Third and Fourth Level Courses
1971	92.5	-	-
1972	93.3	93.7	-
1973	93.3	93.0	96.0
1974	94.3	93.1	93.0
1975	93.4	91.2	96.4
1976	93.1	89.9	92.6
1977	91.8	89.4	91.8
1978	91.0	90.0	90.6
1979	90.8	88.5	89.7
1980	90.8	90.4	88.6

221. These figures show that:

(a) At foundation level, examination attendance and pass rates have changed very little over the last 10 years.

(b) Attendance and pass rates at second level have also been fairly constant (particularly in the last 5 years), but nevertheless a second level student today has more than a one in three chance of failing his course. The non-attendance rate of second level examinations (just under 20 percent) is almost twice that at foundation level.

(c) Over a period of 8 years, examination attendance at third and fourth level has dropped from 84.2 to 65.7 percent. In the same period, the percentage of registered students awarded a pass has fallen from 80.8 percent in 1973 to 58.2 percent last year. Thus, the general increase in drop-out has been most pronounced at third and fourth levels.

Associate Students

222. Detailed studies comparable to those in the undergraduate programme are not available on student progress in the continuing education/associate student programme. They are more difficult to mount because, as explained in paragraphs 167 and 199, the majority of associate students are taking these courses on an individual ('one-off') basis although, as with undergraduates, up to two full 32 week length courses or their equivalent can be taken in any one year. An internal survey undertaken by Swift (1980a) showed that 70 percent of associate students registered in 1979 were "doing a course in a field they 'felt at home with'"; that 92 percent were registered for one course only; and that only 19 percent were studying for the Diploma. 23 percent of them had either been disappointed in trying to gain entry to the University as an undergraduate and were filling in time before re-applying for a place, or were sampling the OU before deciding to apply for one. On the other hand, 34 percent were not interested in this aspect. The main exception to this rule are students registered on the Diploma in Reading Development who are expected to study over two years, preferably consecutive where possible.

223. A second factor to be taken into account arises from the nature of the examination system in regard to associate students. For instance, there are no examinations for community education courses. Of the rest, some are mandatory (e.g. for those studying for the Diploma), but most are optional. It follows, therefore, that not all associate students sit terminal examinations (and indeed some, as we have noted, can not). The proportion of those that do so is thus necessarily lower than is the case for undergraduates. The types of award available to associate students also reflect the various circumstances just described. Those who successfully complete a course (other than a short one), including the examination are eligible for a Course Certificate (which is often, but not always, transferable towards a BA degree in the event of subsequent registration as an undergraduate). Those who choose not to sit an optional examination (or who are taking a course for which none is provided) receive a Letter of Course Completion on the basis of their continuous assessment grades (see paragraph 159). However, the number of those gaining a Letter of Course Completion is not sufficient to explain the poorer performance of associate students, although those who do sit the examination seem to fare as well as their undergraduate colleagues

(a fact which perhaps reflects their previous interest in the subject). Asked about their interest in certification, 40 percent of the students surveyed by Swift reported being very concerned at the time they registered to get a Course Certificate and 35 percent reported being fairly concerned with this. However, 24 percent were not very/not at all concerned. Almost two thirds of the respondents said it was important for their own satisfaction, and 55 percent saw it as being 'potentially useful'. Clearly, those who intended or considered entering the undergraduate programme had a further incentive to gain a Course Certificate (provided they were registered on a course where the Course Certificate is transferable towards the BA degree). Asked to state whether they regarded a Letter of Course Completion as having value or use to them, over four in ten said 'no', and a further two in ten were uncertain. Table 23 provides comparative information on a number of courses presented in 1979. Overall it seems reasonable to suppose that while some associate students are not interested in being assessed, and hence do not submit the assignments necessary to gain even a Letter of Course Completion, others, lacking the experience of a foundation course or other courses, find studying high level ones at a distance a far tougher proposition than do their undergraduate colleagues. These suggestions, however, need to be supported by empirical evidence.

TABLE 23 COMPARATIVE DATA ON STUDENT PROGRESS: UNDERGRADUATE AND ASSOCIATE STUDENTS

Course	Programme	No. examined as a percentage of those finally registered	No gaining credit as a percentage of those examined	% awarded Letter of Course Completion
A202	ug.	77.7	92.8	n/a
	assoc.	49.6	74.8	12.0
A322	ug.	54.2	94.8	n/a
	assoc.	25.4	93.3	13.6
D204	ug.	86.4	84.2	n/a
	assoc.	68.8	86.4	14.1
E321	ug.	58.9	89.2	n/a
	assoc.	38.2	97.9	18.2
MDT241	ug.	61.7	84.3	n/a
	assoc.	42.9	93.8	17.0
S266	ug.	80.0	88.3	n/a
	assoc.	44.4	85.7	12.7
T242	ug.	74.0	87.6	n/a
	assoc.	47.1	92.5	5.9

ug = undergraduate student
assoc = associate student
n/a = not applicable

Higher Degree Programme

224. An internal review of the University's higher degree programme (Open University, 1981b) showed that of the 607 part-time external higher degree students admitted between 1972 and September 1979, 59 percent were still continuing with their studies, 9 percent had been awarded a higher degree, and 32 percent had dropped out. The paper points out that definitive progress and drop-out rates will not be available until such time as all the students in a cohort have left the system, but that of the 1972 cohort, 32 percent had graduated by September 1979, 16 percent were still studying, and 52 percent had dropped out. Although the wastage rate is accepted as high, recent surveys by the United Kingdom's Science, and Social Science, Research Councils showed that the proportion of full-time students who had not submitted theses after four to five years of study ranged from 30 to 50 percent.

225. Overall, as at 31 December 1981, 149 higher degrees had been awarded by the Open University, as follows:

TABLE 24 TOTAL NUMBER OF HIGHER DEGREES AWARDED TO 1981

	B Phil	M Phil	PhD	Total degrees awarded (by category of student)
Part-time external students	24	25	32	81
Part-time internal students (OU staff)	2	3	17	22
Full-time students	-	3	43	46

STATUS OF OPEN UNIVERSITY GRADUATES

226. One final aspect of student progress needs to be considered here - and that is the status and acceptability of the learning that has been accomplished by the students.

227. Betty Swift of the Open University's Survey Research Department has already begun extensive research into the success of British Open University graduates in securing better jobs or pay. Swift (1980) reports that the vast majority of Open University graduates (83 percent) were in full-time employment on entry. At the time they joined the University, graduates were orientated more towards self-development than to achieving material benefit from their studies, although a significant number (45 percent) mentioned one or more of the following factors as having been important: promotion, financial benefits, or a new occupation. Swift found, however, that study with the Open University motivated or encouraged almost two in three of its graduates to try for better pay, promotion or job change. Overall, 38 percent of graduates benefitted solely because of their Open University qualification, 16 percent indicated that the degree had helped their progress, 15 percent said that they had made progress independently of their qualification, and 31 percent reported no change in their circumstances. Apart from any effects on their career, 71 percent reported that their studies had helped them improve their job skills and their ability to perform their work.

228. Swift also shows that a large number of students had gone on to do research degrees (1,723), taught masters degrees (2,781), professional diplomas and certificates (1,772) and academic diplomas and certificates (492), thus indicating the general acceptability of the Open University's degree as a passport to professional training and postgraduate work.

7 ORGANISATION AND DECISION-MAKING STRUCTURES

INTRODUCTION

229 Distance teaching universities represent a new departure in the organisation and management of universities. Broadly speaking, there are two features which affect their organisation: firstly, they are designed to serve the needs of adults unable to attend a conventional university, and who are often in full-time employment and can therefore study only on a part-time basis. Secondly, since the students do not come to a campus for instruction, the teaching materials and local support services must be made available to them in or near their homes.

230 As a direct result of the need to produce and distribute course materials, the distance teaching universities have had to undertake, directly or indirectly, a number of quasi-industrial processes. This has led to the need to define clearly the inter-relationships between two broad areas, one of which is more in the nature of a business enterprise requiring appropriate management and control, while the other is closer to traditionally conceived academic areas, in which the staff expect a style of management or governance reflecting accustomed forms of management in conventional universities.

231 The latter, at least in Britain, have an essentially cellular structure, in which each cell represents one academic discipline or department. As Rumble (1981: 181) observes:

> The control of the teaching programme is normally vested in the head of the department and his/her staff. Most decisions are localised and have very little impact outside the department in which they are taken. Decisions which affect the whole system tend to be avoided, or couched in such a way that they permit a variety of interpretations. There are frequently no university policies on, for example, admissions or study requirements, nor is this felt to be disadvantageous. In this situation the role of the professional administrator is to maintain a watching brief over the activities of largely autonomous departments, and where necessary to initiate requests that departments reconcile conflicting policies.

232 In contrast, distance learning raises managerial problems of a high order. Some of the factors causing this to be so in the Open University are:

- the extensive research and strategic planning required to make effective use of the various media available
- the large number of students studying and using materials on different timescales
- coordinating and scheduling the preparation of materials, their delivery to a widely scattered home-based population and the provision of tutorial and other local services
- the existence of a course credit elective system with great freedom of student course choice
- the existence of several inter-related programmes of activity (undergraduate, associate, higher degree, research) with facilities for students to transfer credit from one programme to another (associate to undergraduate - a fairly common occurrence - and, for the first two courses of the Diploma in Reading Development, vice versa)

- the division of responsibility for the preparation and teaching of materials, and the assessment of students

- the technological basis of the University's teaching system and the consequential need for specialised staff

- the participative, democratic, decision-making that is an inherent part of the University's government structure which, linked with the elective or short-term nature of appointments to a number of posts within it (e.g. most Deans of Faculties, Pro-Vice-Chancellors) has implications for the professional administration who are thus required to act as a "permanent civil service" and provide a lead to ensure that office holders maintain a continuity of approach

- the relatively ill-defined role which the professoriate plays within the University

- the existence of various external constraints (some of which are vaguely, or only partially, defined) within which the University has to operate

- financial limitations, and the need to agree and control expenditure against budgets in situations where costs may be generated in one part of the University but incurred (i.e. paid) in other parts.

233 These factors give rise to a situation in which the role of the institution cannot be restricted to the formulation of broad policy guidelines, with much of its day-to-day running left to individual departments or teachers. Instead, "the management of the learning process requires the creation of a complex and interdependent system which needs constant administrative attention and teamwork" (Daniel and Snowden, 1979). The result is that within distance teaching universities institutitional planning, coordination and control become a necessity. The organisational structure of the institution has to meet this need (Rumble, 1981: 182).

234 At an early stage in its development, and in consonance with its full University status, it was decided to establish an institution which would have overall control over the design, production and distribution of multi-media teaching materials, and the admission, registration, tutoring, assessment and accreditation of the students. The basis of this thinking - which differs radically from the 'network' approach of institutions like the Norsk Fjernundervisning (the recently opened 'Norwegian Institute of Distance Education') - was the belief that the University should have full control of the design and teaching of its courses. Where recourse was made to the expertise of an independent broadcasting authority - the British Broadcasting Corporation - the agreement between the Corporation and the University sought to delimit very carefully the powers of each, and to leave the prescription of academic objectives to the latter (see paragraph 122).

A SYSTEMS-BASED ANALYSIS OF THE OPEN UNIVERSITY

235 Superficially the systemic similarities of the autonomous distance teaching universities are striking. A systems-based analysis of such universities has been provided in Kaye and Rumble (1981: 19-22) following the application of ideas originally developed by Miller and Rice (1967). The latter use the term operating activities to describe those that directly contribute to the import, conversion and export processes which are characteristic of open systems, and which define the nature of the enterprise and differentiate it from others.

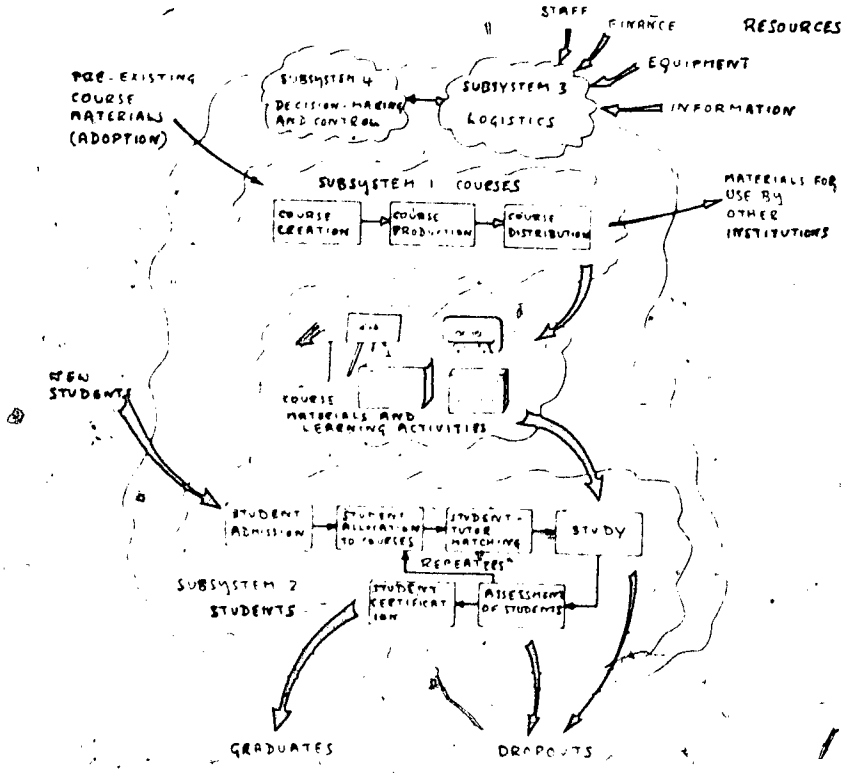
236 Two major operating sub-systems can be distinguished in distance teaching universities. The courses sub-system is concerned with the design, production and distribution of teaching materials. The course design process converts academic ideas and teaching strategies into a prototype course using appropriate media for the achievement of defined curriculum objectives. The course production process turns the prototype course into a finished product, either in the form of a single copy (e.g. a master tape) or of multiple copies (e.g. books or cassettes). Distribution is the process which takes the product from its point of production to the point at which it is available for student use.

237 The student sub-system is concerned with advertising academic programmes; admitting students and allocating them to courses, tutors, local centres, counsellors, and collecting their fees; the provision of tutorial services (by correspondence or telephone, or in face-to-face sessions); the counselling of students; their assessment, examination and certification; and the maintenance of student records.

238 A third operating sub-system, that of research may also be found in ADTUs (Autonomous Distance Teaching Universities). It is not in itself integral to distance education. In addition, logistical activities procure and replenish the resources required by the institution (staff, equipment, consumables) and regulatory activities relate the various sub-systems to each other, and the organisation to its environment through the activities of planning, control and evaluation; and they also determine policy. These ideas are summarised in Figure 5.

FIGURE 5 : A SYSTEMS BASED VIEW OF A DISTANCE EDUCATION SYSTEM

From Kaye and Rumble, 1980: 21.



239 In the Open University, the first stage of the courses sub-system comprises the development of curriculum objectives for each course, the design and development of multi-media materials (print, kits, broadcasts, etc), and the development or specification of teaching, learning and assessment instruments (tutorial contact, residential schools, assignments, examinations). Responsibility for these activities is vested in a course team, all of which are project-groups administratively located in the faculties. They draw their membership from the basic academic units of the University (the faculties or the Centre for Continuing Education), aided by the Institute of Educational Technology's Course Development Division, BBC/Open University Productions staff and faculty-based Staff Tutors located in the regions, and supported by editorial and administrative staff. Additional specialised support to meet the academic computing needs of course teams is provided by the Academic Computing Service. A more detailed discussion of the role and functioning of course teams and educational technologists follows but, overall, course teams have to work within a defined structure of academic and operating regulations, and keep within resource constraints that are specified at an early stage of their development.

240 The second stage of the courses sub-system is that of course production. This covers those processes which turn the prototype of the course into a finished product. Responsibility is divided between the University's Operations Area, responsible for the editing and design of printed materials (correspondence texts and supplementary materials such as student broadcast notes, tutor notes, and assignment booklets), and the preparation of multiple copies of audio-visual materials (such as audio-cassettes); the BBC's Open University Production Centre, which has studio facilities on the University's campus, and which is responsible for the production of broadcast programmes (both radio and television) and cassette programmes; the different groups of technicians who work in the faculties on the preparation of items for Home Experiment Kits (see paragraph 150); and the various commercial firms which print or prepare materials on behalf of the University.

241 The third stage of the course sub-system is concerned with course delivery. The Operations area is responsible for the despatch of printed material to students and tutors (through its Correspondence Services Division), and the packing, despatch, receipt, refurbishing and maintenance of experiment kits (through its Warehouse at Wellingborough, a town some 22 miles away from the University's main campus). It also maintains stocks of printed and other course materials, and operates the audio and video-cassette library schemes (see paragraphs 135-6). The BBC is responsible for the transmission of Open University programmes on its national networks, in accordance with schedules determined by the Open University.

242 Course teams specify the type(s) and number of assignments, and hours of tutorial contact, which they require - the former being subject to University approved minima (see paragraph 153). Tutor marked assignments are graded by part-time tutors or (in the case of Foundation Courses) tutor-counsellors. The selection of assignments for monitoring is done by the Administration's Assignment Handling Office at the Open University's central campus. The scripts are themselves monitored, partly by central academic staff and partly by faculty-appointed but regionally-based full-time Staff Tutors. Grades are allocated, collected and stored on the University's central computerised files (maintained by the Administration's Management Services Division). The grades awarded by each tutor are also analysed by computer to ensure that tutors are not departing from the normal distribution of grades. This provides a second check on the quality and consistency of their work. Computer-marked assignments are dealt with by the Assignment Records Office in conjunction with the Management Services Division.

243 Regions organise study centres and face-to-face contact between students and course tutors or tutor-counsellors. They are responsible for the selection, training and general monitoring of the tutors' work - a job which falls to Staff Tutors (see also preceding paragraph). Regions have great flexibility in deploying the resources at their command to meet the needs of course teams, and to the student and other circumstances pertaining to their areas.

244 The residential schools are organised partly from the centre (in respect of negotiations for facilities and the allocation of students), and partly from the regions (in respect of the day-to-day management of the actual residential schools).

245 Monitoring and controlling the overall achievement of design, production and transmission schedules, and relating these to the activities to be carried out by the student, is the Project Control Office. This Office acts as an interface between faculties and other academic areas, and the Operations area - using Critical Path Analysis and production-smoothing techniques to ensure that the system operates as well as possible. A general discussion of these techniques is given in Kaye and Rumble (1981: 73-88). An early analysis of the Open University's own system was made by Lewis (1971).

246 The student sub-system is concerned with the admission of students, their registration for courses and the collection of fees, their allocation to regions, study centres, tutors, and summer schools, the arrangements for examinations, and their certification. The system also vets applications for advanced standing (credit exemptions and directly transferred credits), for excusal from various regulations governing student progress, and provides support for student learning for those who are disadvantaged (for example, by identifying academically weak applicants who may require special advice and preparation; or for disabled students), as well as running special study schemes for students who are in prison, in the British Armed Forces stationed in Cyprus or the Federal Republic of Germany, or whose life-style is subject to considerable disruption (for example, merchant seamen).

247 Responsibility for the student sub-system is shared between the Central Administration and the Regions - as is responsibility for tutorial and counselling services. The former is responsible for the admission of students. The Administration maintains centralised student records - although those needed are also passed to regional staff. Readers interested in a detailed discussion of certain aspects of the record systems - and particularly the way in which it interacts with academic support services - should consult Sewart (1980). The Central Administration also services those committees which take policy decisions in respect of student progress, and which make rulings in particular cases. However, in so doing, account is taken of specialised advice and recommendations forwarded from tutors, tutor-counsellors, staff tutors and senior counsellors. The actual allocation of students to tutors and tutor-counsellors is done by the regions, who are also responsible for the operation of the study centres. Finally, student fees and the issue of all forms of certification is the responsibility of the Central Administration.

248 The activities of the regions are directed and co-ordinated by a small central unit, Regional Tutorial Services.

249 The research sub-system was discussed briefly in paragraphs 88-9 above.

250 Rumble (1981: 183-5) has described the decision-making functions of the University as follows:

> "Although heads of departments report to the Vice-Chancellor, it should not be assumed that the Vice-Chancellor has explicit managerial authority over departmental heads. Indeed the explicit powers of Vice-Chancellors in British universities are extremely limited. The success of a Vice-Chancellor stems largely from his or her powers of leadership, rather than from a statutory authority.
>
> As well as being the chief academic officer of the University, the Vice-Chancellor is also its chief administrative officer. In fulfilling his administrative functions he is aided by two groups of persons. The first are the numerous academic members of staff who occupy positions in the decision-making structure by virtue of their membership of committees. The chairmen of these committees, also academics, are empowered to take decisions on behalf of their committees, and therefore play an important role in the decision-making structure. They are aided by a group of professional administrators (the bureaucracy), responsible for the execution of agreed policy. Traditionally, the bureaucracy has had a relatively low status allotted to it in British universities. Moodie and Eustace (1974) remarked that:
>
> > 'Their position is best illustrated by their relationship to the committee structure of the university. They attend committees, in many cases they supply the briefs and documentation without which committees would not know what they are deciding, and they are expected to see that committee decisions are carried out: but they are seldom full voting members of the most important committees.'
>
> Also, in Britain a very substantial amount of administration in conventional universities is done by the academic staff. This is not possible in distance-learning systems. One can view the government structure of the UKOU as an attempt to reconcile the pressures arising from the complexity of the management process with the traditional governing structure of conventional universities.
>
> The first difference to be noted is that in the UKOU the academic members of staff comprise a relatively small proportion of the total staff of the institution (22.6 per cent). To operate the complex managerial systems of the UKOU there is a large professional administrative and managerial staff (19.6 per cent), together with clerical and secretarial supporting staff (40.8 per cent), responsible for the execution of the University's student administrative system (admissions registration, certification) and teaching system (tuition, counselling, assessment and examination); for the design and production of course materials (graphic and photographic design, editing, publishing, audio-visual materials production) and for their subsequent distribution; and for the provision of administrative services (committee servicing, financial and data-processing services, management and maintenance of buildings and equipment). These non-academic staff are organised on a hierarchical basis. In common with traditional UK universities, the decisions which they are asked to execute are generally taken by committees whose membership is almost

exclusively academic. On the other hand, UKOU administrators probably have greater influence on the work of 'technical' committees (i.e. those concerned with the means by which policy is executed, as opposed to the definition of policy), by virtue of their attendance at meetings and their preparation of briefs, than in the case in conventional universities.

For managers and decision-makers the essential problem is the separation of policy formulation from its executive implementation. Implementation of policy cannot be efficiently carried out through a committee structure yet, as Perry observes:

> 'Academics, jealous of their rights as the supreme authority, tend to want to retain control of the implementation as well as of the formulation of policy (and the borderline is difficult to draw) and to be hesitant about delegating decision making about implementation, save in routine and trivial matters, to administrators over whom they feel they have no control.'

One particular problem is that the efficient management of the institution is hindered by the bi-cameral nature of the government structure. Most academic decisions have resource implications, or bear upon the terms and conditions of service of staff. As a result, many issues have to be considered by both Senate and Council and their appropriate specialist subcommittees. The result is that the formal decision-making process is both cumbersome and slow. This is aggravated by the requirement placed on the government structure that it 'allow participation by members of the University to the maximum degree commensurate with its effective operation'. Typically, policy proposals are formulated in detail by the appropriate committee before being put to academic units for comment. The committee then reformulates its proposals in the light of comments received, and they are then put to Senate and Council, as appropriate. This process can take some time.

Perry has commented that the Vice-Chancellor is continually forced by circumstances to take decisions without waiting for the University's government structure to operate. In this he is helped by the full-time appointed Pro-Vice-Chancellors who are responsible for the organisation of policy formulation in the area of teaching policy, student affairs, planning, staff affairs* and continuing education. These officers, working in conjunction with the professional administration, and consulting with the heads of academic areas, the directors of the University's thirteen regions and other senior staff as necessary, can and frequently do take decisions outside the formal committee structure. To a very large extent this 'informal' structure is a response to the managerial problems faced in the UKOU and the shortcomings of an over-cumbersome committee structure. However, an important implication of this state of affairs is the emphasis which it places on the personality of the Vice-Chancellor and his senior administrative staff and on the quality of their leadership."

* The post of Pro-Vice-Chancellor (Staff Affairs) has been in abeyance since July 1981.

251 Supporting the management and decision-making functions of the University are various specialist groups (for example, the Financial Planning Office within the Finance Division, and the Academic Planning Office within the Administration, as well as various specialist administrators within the latter). The University's programme of institutional research is also supportive - to a greater or lesser extent - of the management and decision-making functions.

252 The logistical sub-system comprises a number of areas - Finance, Management Services (i.e. D.P.), Organisation and Methods, Staff Services (i.e. Personnel), Purchasing, Buildings, Estates and Maintenance, Security, and so on, all of which fulfil functions which are vital to the smooth running of many organisations.

THE ORGANISATIONAL STRUCTURE OF THE OPEN UNIVERSITY

253 The University's organisational structure has developed in response to the functions it has to undertake, and in relation to the geographical divide of the teaching-learning process between the centre and the regions, and the similar divide between regionally organised student support services and a centralised student administration.

254 Organisational structures were proposed in both the Advisory and Planning Committee Reports. Changes have been made from time to time since the University was established, although the present structure (Figure 6) is recognisably derived from that existing in April 1971 (Figure 7) - the most notable differences being the institution of a team of Pro-Vice-Chancellors to help the Vice-Chancellor in the exercise of his responsibilities; the amalgamation of divisions responsible for various aspects of course production and distribution into an Operations area; the growth of research groups; the establishment of the Centre for Continuing Education; and the 'hiving-off' of marketing activities into a separate Limited Company, Open University Educational Enterprises Ltd., whose shares are wholly owned by the Council of the University. The University also has an educational partnership with the BBC, which has established a separate production centre to meet its needs. The current structure of the BBC's Open University Production Centre is shown in Figure 8.

Early Development of Faculties and Course Teams

255 The early development of the faculties and course teams is discussed in The Open University (1977: 156, 160), as follows:

> Ever since the report of the University's Planning Committee, the University has been opposed to the development of subject-based departments or disciplines as the basic unit of academic organisation. Initially the basic unit of organisation was the inter-disciplinary Foundation Course Team, but by early 1970 thought was being given to the development of Second Level Courses. The creation (out of the original 'lines of study') of faculties, which would be the basic organisational units to which staff would be appointed and resources allocated, seemed a natural enough development. There was, however, concern that the creation of faculties as governmental (that is, decision making) bodies would undermine the philosophy of the Planning Committee that 'the degree of the Open University should ... be a "general degree" in the sense that it would embrace studies over a range of subjects rather than be confined to a single narrow speciality'. Despite the

FIGURE 6 - OPEN UNIVERSITY ORGANIZATIONAL STRUCTURE 1981

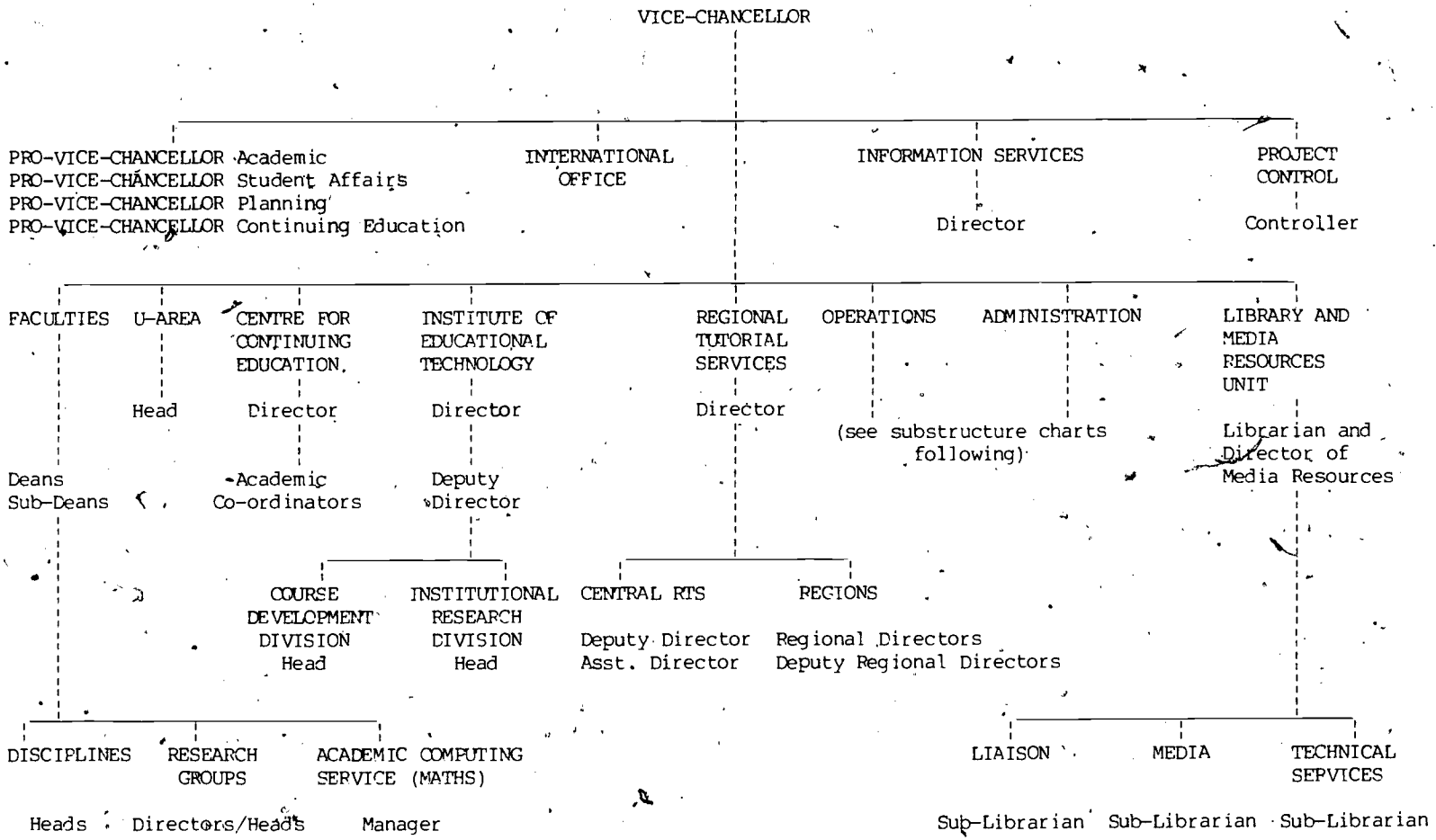


FIGURE 7 - UNIVERSITY MANAGEMENT STRUCTURE, APRIL 1971

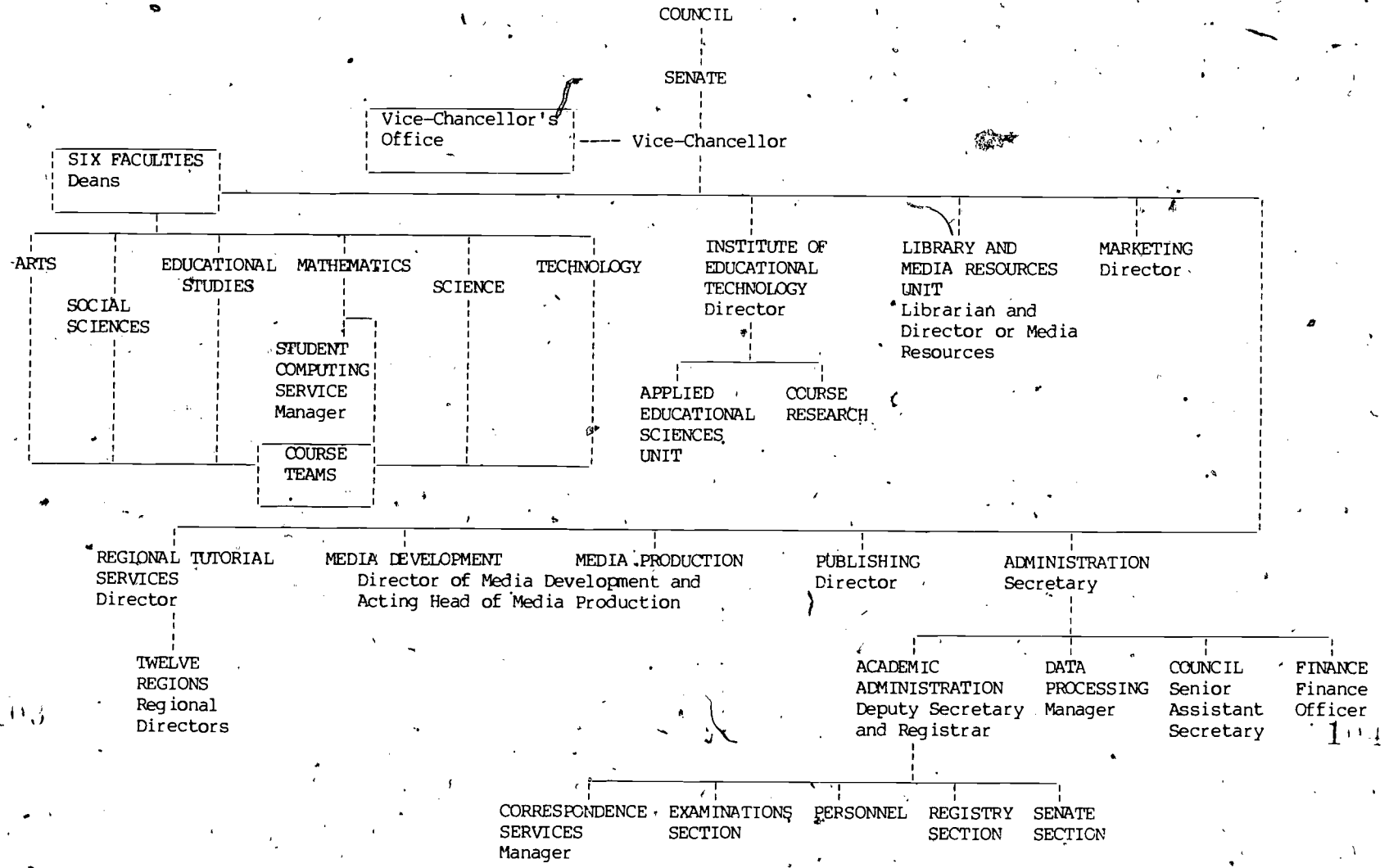
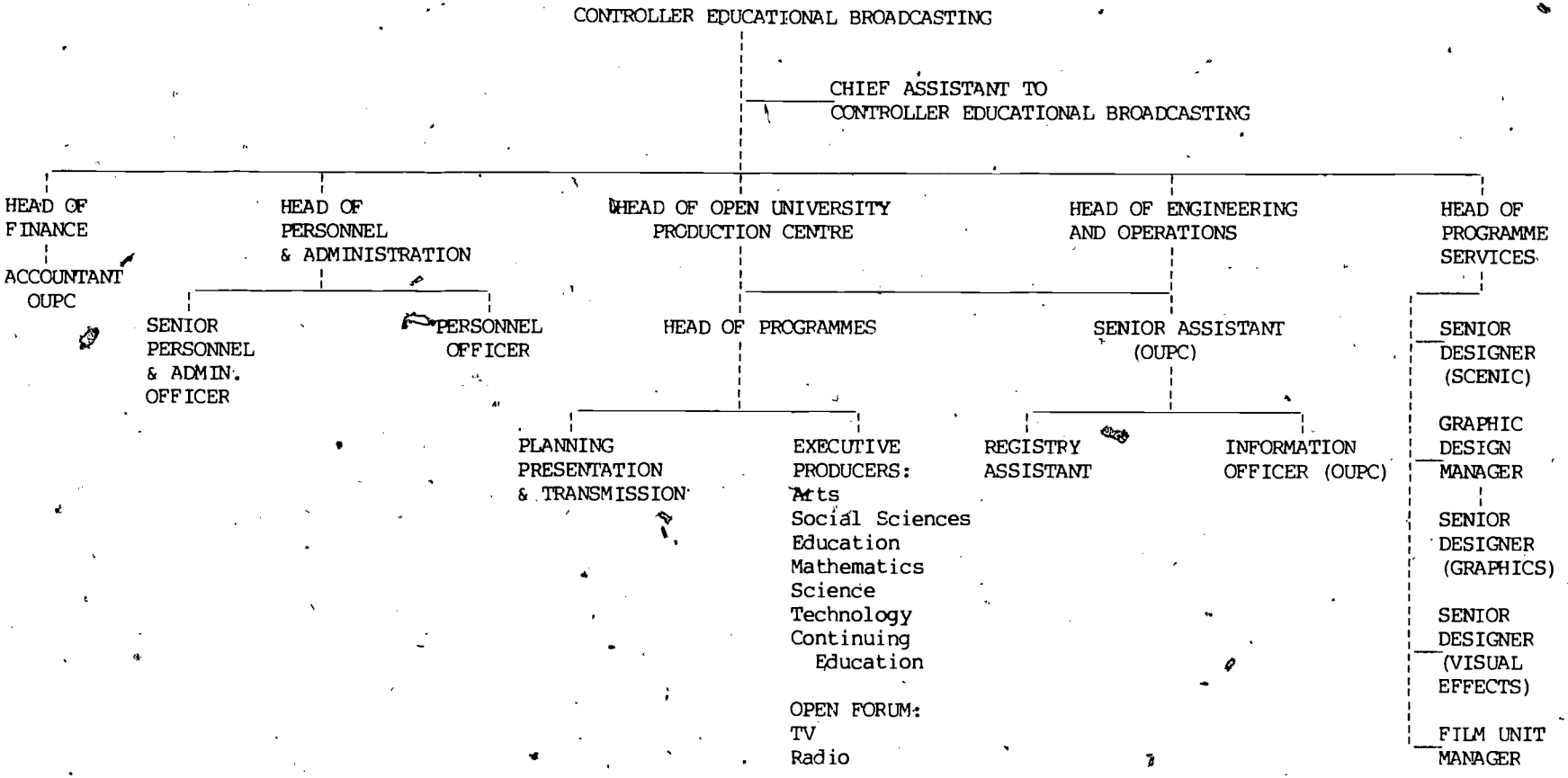


FIGURE 8 - BBC/OPEN UNIVERSITY PRODUCTIONS (as at Jan. 1982)

BBC Staff Engaged Directly with the Open University



general commitment to interdisciplinary courses within a faculty boundary, there was concern that the existence of faculties would inhibit the development of inter-faculty courses... The extract below, taken from the Report of the University's Government Structure Study Group (1973), best expresses the reasons which have been put forward against the growth of formal recognition of departments:

1 It would impede the development of a coordinated academic programme and of innovatory and inter-disciplinary research;

2 The Course Team approach might be hampered;

3 With both Course Teams and departments the multiplicity of subsidiary units would increase the complexity of academic administration;

4 A large number of small academic groupings would exercise very much less influence in the University's policy making and decision taking processes than a lesser number of more viable units;

5 The number of central academic staff in each discipline is smaller in this university than in others, and it is academically desirable in the Open University context to establish large groupings encompassing more than one traditionally distinct discipline;

6 With the faculty rather than the department as the basic academic unit there are likely to be greater opportunities for participation by staff at all levels of seniority.

256 In fact, departmentalisation has subsequently occurred for two very good reasons: firstly, because the size of the faculties now makes this desirable; and, secondly, because they act as natural foci for research activities.

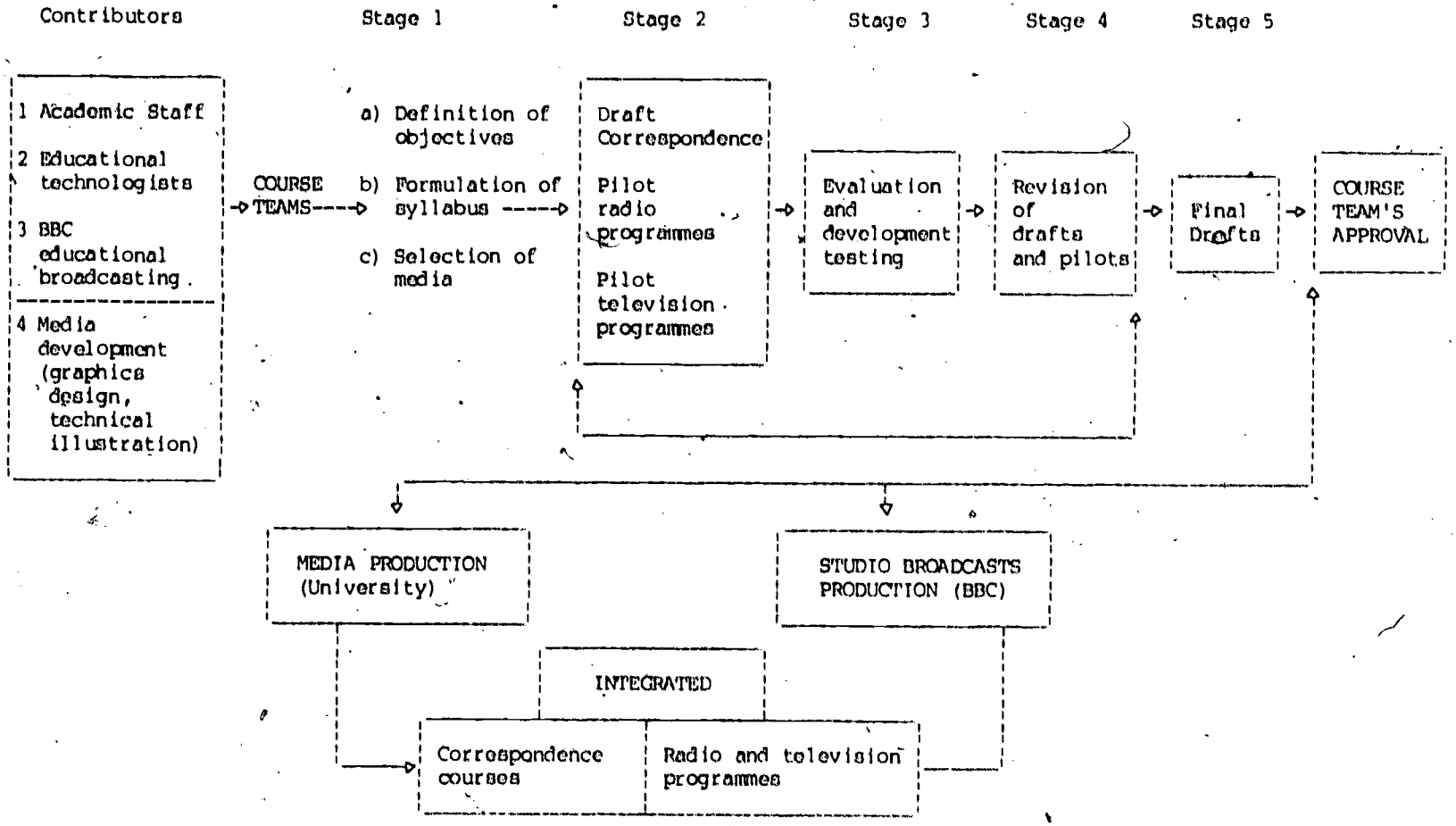
257 Course teams, however, have continued to be the basic administrative unit for the design and development of courses.

The Concept of the Course Team

258 Perry (1976: 91) wrote:

> What, then, have we learned from our experience of the course team method? There seems to me no doubt that a course produced by this method will inevitably tend to be superior in quality to any course produced by an individual. The concept of the course team is, I believe, the most important single contribution of the Open University to teaching practice at a tertiary level.

FIGURE 9 : COURSE DESIGN AT THE OPEN UNIVERSITY - A SIMPLIFIED FLOW CHART



259 Perry's book describes the operation of the course team in some detail, and in idealised circumstances (Perry, 1976: 83-91). Course Teams have delegated to them authority for the content, nature and method of presentation of the course, together with full responsibility for its academic and pedagogical standards, and for creating it in accordance with agreed production schedules and within agreed resource levels. The Team's first task is to determine the syllabus of the course. Once this has been done, it is possible to sketch out in greater detail the subjects of various blocks or units of the course, and to identify the resources which will be needed to mount it. This includes the nomination of block or unit authors. At this stage the team, which is of an informal nature, puts its proposals to the Faculty Board and from there to various specialised committees, and ultimately to the Senate. Course proposals when given academic approval, receive agreed levels of resources. The Course Team itself becomes a 'legal' entity at the stage that the proposal receives this approval.

260 Subsequently, the course outline is refined and the authors begin to write the various units. The number of authors and consultants may vary from one or two to twenty or so; and the process by which the units are prepared and put through their various drafts also varies considerably. Throughout, the team has the problem of integrating the various media. This may be difficult if the production schedules for individual components (print, broadcasts, kits) are not adequately synchronised. Figure 9 gives a simplified outline of the course design process.

261 Membership of course teams varies but typically consists of subject content specialists (mainly central academic staff, but Staff Tutors also, on occasion), one of whom will normally be the course team chairman, an educational technologist from the University's Institute of Educational Technology, a BBC producer, a member of regional academic staff (to advise on tutorial aspects), an editor and a course co-ordinator (responsible for providing administrative support to the course team). The work of the course team is supported by designers, librarians and other administrative and specialist staff. The responsibilities of these staff are explained in some detail in, for example, The Open University (1977: 92-95). In addition, external consultants may be brought in to do particular tasks.

262 Course teams operate in two distinct phases. The first is concerned with the initial design and development of the course, ready for its first year of presentation. During the second, and subsequent, stage the course has to be 'maintained' during its course life. In this maintenance stage, new assignments and examination papers have to be prepared, and course content altered in the light of feedback from teaching and to reflect changes in the subject matter of the course. Typically, while the majority of members of a development course team will be reassigned to new duties at the end of the development phase, one or two members, supported by a course co-ordinator, will retain responsibility for the course during its presentation.

263 Some courses are 'developmentally tested' in prototype on a few students. The essence of this is that they are required to comment in depth on the draft materials, thereby providing important feedback to course teams in helping to resolve any problems of matter or presentation before the course is offered to students generally. The process may take one or two forms:

(a) Where the course is reasonably complete it may be developmentally tested 'for credit'. That is, the student may be eligible for a credit at the end of it. In these cases they pay their fees in the usual way, but can receive an ex-gratia payment up to the amount involved.

(b) Where a course is far from complete in essentials, or where it is desired to test only a part or parts of it, students receive payment for what they contribute but no question of a credit is involved.

The practice requires students to work on materials which are not as well produced as the final versions, and hence could, unless controls are adequate, disadvantage them to some extent. Henderson and Nathenson (1976: 33) found that students who developmentally tested a course were spending 30 to 50 per cent less time studying than those who later studied the same (but fully developed) units. Nevertheless, provided that the educational package in whole or part, as appropriate, is tested, that the testers and the conditions under which they study closely approximate to the target student population, and that the evaluation combines "both objective and subjective data and is capable of identifying faults in the material and generating potential solutions" (Henderson and Nathenson, 1976: 33), there are obvious institutional advantages in doing this.

264 The course team model is not without its problems. Perry (1976: 91) acknowledged that 'it is a very expensive way of writing courses, that can be justified only if the course materials are used for a very large number of students'. The greatest criticism, however, has come from Drake, who contends that 'far from being the eighth wonder of the world, the course team is a menance to the academic output and reputation of the Open University and that where good courses have been produced and maintained this has been in spite of, rather than, because of it' (Drake, 1979: 50). Drake makes it clear that he is not against the incorporation into a team of broadcast producers, graphic artists and designers, editors, educational technologists and regional staff, together with various administrative and support staff; this argument is against the idea that success and quality can be assured by having a group of university lecturers work together as a team to initiate, produce and maintain a course. He points to the great variety in the units produced by different academics for a particular course: 'One will find, within one and the same course, some units filled with illustrations and others with scarcely any; some units bursting with self-assessment questions (SAQs) and others with none or but a token one or two' (ibid: 50). This, he believes, 'reflects not the conscious decision of the group, of the course team, but the idiosyncracies of the individual academic and his or her relationship with the particular members of the wider team ..... designers, producers, educational technologists' (ibid: 50).

265 Drake argues that the real importance of the course team is that it provides not only a social setting within which the academic can operate, but also that it assures, particularly in the early stages of course design, 'a wonderful environment for academic discussion' (ibid: 51). Herein, however, lies the problem, for academics, keen on exploring possibilities and on discussing what might be done, do not actually have to do anything. As Drake puts it (ibid: 51)

> One doesn't actually have to do anything; no decisions must be made; there are no deadlines to be met. But when the time comes for decisions and deadlines, most academics are ill-equipped. So course teams become less attractive to their academic members and a source of great anguish to the multitudes of people who serve them - administrators, producers, editors, designers etc. Tragically the root cause of this malaise has been almost totally ignored, with the result that the attempts at solving it have actually made matters worse. For one solution has been to increase the number of academics on a course team.

266 The second drawback identified by Drake is that the course team places more emphasis on content than on teaching.

> Most academics are more interested in gathering and analysing information than on projecting it. Teaching is not their primary interest. Put a group of academics together, isolate them from students and you exacerbate this tendency (Drake, 1979: 52).

The nature of the Open University's system aggravates this situation because central academics have little or no responsibility for teaching (although there are some who voluntarily do act as part-time tutors and most do one or two weeks each year at the University's residential summer schools). However, there has been an interesting departure from this state of affairs in that, in 1982, a fourth level Social Science 'guided study course' is being offered for the first time in which the small numbers of students involved are entirely tutored by members of the full-time staff.

267 Drake believes that when the time comes for writing, the course team begins to disintegrate. Although in theory draft units are distributed for comment to fellow members of the team, 'the amount of feedback is frequently miniscule of quantity and microscopic in value' (ibid: 52). He suggests that some members lack the interest (or subject expertise) to comment on content or teaching strategies; and that the 'course team discussion format gives the articulate, the domineering and the thick-skinned an influence out of all proportion to their numbers or their merit and conversely weakens the role of the shy, the less verbal and the more sensitive' (ibid: 52).

268 There is, of course, some substance to Drake's criticisms. Both Mason (1976) and Newey (1975) have thrown an interesting light on the behaviour of course teams and course team chairmen. Newey suggests that in some courses 'the course team chairman may see himself as a chairman in the proper sense in that he appreciates that each member of the course team has particular skills, experience, knowledge and ideas to offer; and ... In such a case, the course which is finally produced is "the product of many minds" and the team is a team in the real sense of the word' (Newey, 1975: 48). On the other hand, sometimes there are internal pressures within the team not to comment adversely on other academics' units; and not to thrash out a set of aims for the course, and of objectives for the students, but to accept compromise solutions, 'leaving much of the integration and "overview" to be worked out by the student', and that these pressures may fragment the course and the team. Also, 'as deadlines approach, each member of the team has his own problems to worry about, and even though the will may be there, he becomes less and less inclined to read and comment on his colleagues' draft units, to check their computer-marked assignments, to contribute to discussions of ideas for television programmes .... and even to attend course team meetings' (Newey, 1975: 49).

269 Newey's experience was that the system did work, at least in his case. Indeed, many feel that Drake's objections to the course team method of working can not be generalised. Costello (1979: 53), responding to Drake, holds that 'It is not true however that all these [adverse] features attach themselves to all course teams', a comment also made by Blowers (1979: 55). True, 'it is unlikely that a course team could ever function without some conflict and without some pressure from production areas' (Costello, 1979: 54) but 'far from being a malignant cancer the course team is rightly the core of much Open University academic work and enables its members to retain their academic integrity and avoid the pressures to become merely part of a course producing factory' (ibid: 53). Blowers (1979:55) points to the fact that the vast majority of courses are presented on schedule, so that the course team is not just a 'talking-shop'. Moreover, to say that content and teaching are separated in the Open University's system is to miss the point that enormous resources have been put into 'inventing, developing and refining a teaching system that is the envy of the world' (ibid: 55).

270 Those who have responded to Drake's criticisms have not themselves been against change. Blowers (1979: 55-6) has called for a more flexible approach to course production - particularly 'the initiation .... of cheaper systems of continuous production in which courses are able to evolve and in which the present distinction between production, presentation and maintenance is increasingly blurred'. And Mills (1981: 61) has suggested that there is advantage in students 'foraging' for themselves and learning more from libraries and less from written correspondence, and recommended associated, texts.

271 Elsewhere, Riley (1981: 69-70) has pointed out that 'there cannot be any ideal model for course teams' and that the Open University already has experience of at least four radically different models from the traditional large academic course team. These she lists as:

- the very small course team
- the small core team with many consultants
- joint teams with other institutions
- teams which use an academic editor to redraft material from both internal authors and consultants.

In addition, there is a wide variety of approach in other distance teaching universities (see, for example, Kaye and Rumble, 1980: 105-113), and no dearth of ideas for other models for use within the Open University (Riley, 1981: 70).

272 Overall, the course team environment appears to have been a source of inspiration and satisfaction for many academics, providing an opportunity to work within 'the one invention that was truly innovative' (Blowers, 1979: 55). There are signs, however, that the evolution of new course models, the desire to cut costs on high level courses, and the wish to experiment with new forms of course development, are resulting in changes.

The Role of the Educational Technologist

273 One of the aims of the University's Institute of Educational Technology is to improve student learning by advising and assisting course teams, a function which is carried out by its Course Development Division. Various strategies are proposed for the attainment of this objective, including the design and developmental testing of learning materials and systems; the evaluation of courses and their components with a view to improvement or replacement; the investigation of the characteristics of Open University students and of the impact the University has on their lives (undertaken by the Institute's Survey Research Division); the development of induction and in-service learning experiences for academic colleagues at the centre and in the regions, in response to their requests and on a collaborative basis; and the development of appropriate machinery to ensure that advice and feedback can be used collectively by course teams and other bodies.

274 Within these broad objectives, the precise role of the Open University's educational technologists remains ill-defined. Gale (1980: 5) cites various Open University technologists in support of this contention. For example, Lawless and Kirkwood (1976a) who point out that 'educational technology is not a discrete discipline; it draws from a number of disciplines and its emphases are developing'; and Burt (1976) who contends that "educational research has not been successful in establishing very many principles which have general validity". Certainly, Open University educational technologists stress the diversity of roles they have to fill, including that of being a consultant (Henderson, 1979; Macdonald-Ross, 1976); a source of information (Henderson, 1979); an applied scientist implementing a technology of teaching (Macdonald-Ross, 1976); a systematic technician, starting with well defined objectives and ending with multiple-choice questions (Macdonald-Ross, 1976); a problem-solver (Macdonald-Ross, 1976); a students' advocate (Macdonald-Ross, 1976; Lawless and Kirkwood, 1976b); an initiator, who stimulates the course team to consider issues of assessment and pedagogy when those of content are all pervasive (Lawless and Kirkwood, 1976b); a reactor to draft materials (Lawless and Kirkwood, 1976b); a transformer who mediates between the expert and the reader, putting the former's message into words which the latter will be able to understand (Macdonald-Ross, 1976). Elsewhere, Duchastel (1978: 164-66) lists, with minimal comment and in caricature form, the diversity of perceptions which surround Open University educational technologists.

275 More generally, Lewis (1980) agrees 'with critics who claim that educational technology is in an unsatisfactory intellectual condition', but argues that 'these critics are deluding themselves if they think that other professions are significantly better'; and Hawkridge (1981: 17) stresses the multi-disciplinary origins of educational technology, and sees the practice of it as extending far, 'touching upon the territories of a great number of disciplines'. Given this, one can understand the pervading sense that the University's educational technologists sometimes have difficulty in defining their role, and indeed, find themselves adopting various roles at different times, depending on the circumstances of the project or course on which they are working.

DECISION-MAKING: THE COMMITTEE STRUCTURE

276 The University is an autonomous institution, established by a Royal Charter which provides the basic formal framework by setting up a minimum number of formal governing bodies and officers, and which empowers the University to create or modify its own detailed internal government structure as and when required.

277 An early decision was taken to give the University a government structure firmly based within the evolving traditions of university governance within the United Kingdom. Thus, while its Charter recognises the essential differences of the Open University in many respects, it nevertheless establishes the normal organs of government of a British University. Very broadly these are:

> Council: consitutionally responsible for the overall management of the University, in terms of its finance and its physical plant, it is described in the Charter as 'the executive governing body of the University';
>
> Senate: the 'academic authority of the University', it remains 'subject to the powers reserved to the Council' by the Charter and Statutes, and there is therefore an element of subordination in Senate's relationship to Council.

Notwithstanding the legal position, it is perhaps more realistic to see the situation in terms of a separation of powers, or a system of checks and balances so that, to all intents and purposes, the Senate is supreme in academic matters, and influential in those which properly fall under the jurisdiction of Council.

278 The aim of the University's government structure has been to establish Committees which will ensure effective decision making, coordination, and participation. In 1969/70, the immediate need was to formulate academic policy in time for the preparation of the first courses, and for the first teaching year. This was done through Senate and Council (meeting monthly), a Senate-Council executive committee (meeting weekly), and a number of ad hoc working groups. This fairly simple structure (Figure 10) developed quickly, but in such a way that there was considerable duplication of effort on the one hand, and some startling gaps in the decision taking structure on the other. An initial review led to the introduction of a new government structure in July 1971 and a further planned review led to another revised structure, introduced in 1973, and which has essentially lasted until the present time. (See Figure 11). However, a further review is at present taking place.

279 The participative nature of the University's government structure has been achieved by having a large Senate, to which all members of the University's academic, and a large number of other, staff belong. Current membership is 820. Academic staff are also members of various faculty, Institute of Educational Technology, Regional Tutorial Services and Centre for Continuing Education bodies. Both Senate and the various grass-roots Boards related to these and other areas provide academic staff with a chance to discuss policy proposals and to make comments on them. Senate is also, as indicated above, the supreme legislative body on academic affairs.

FIGURE 10 - GOVERNMENT STRUCTURE, OCTOBER 1969

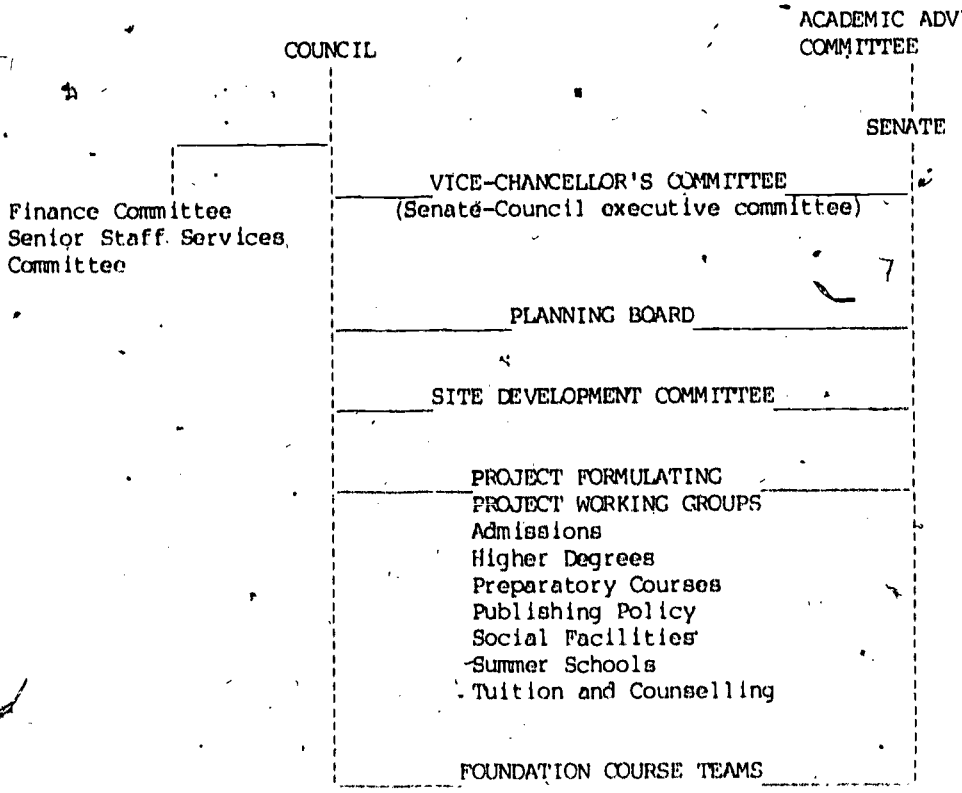
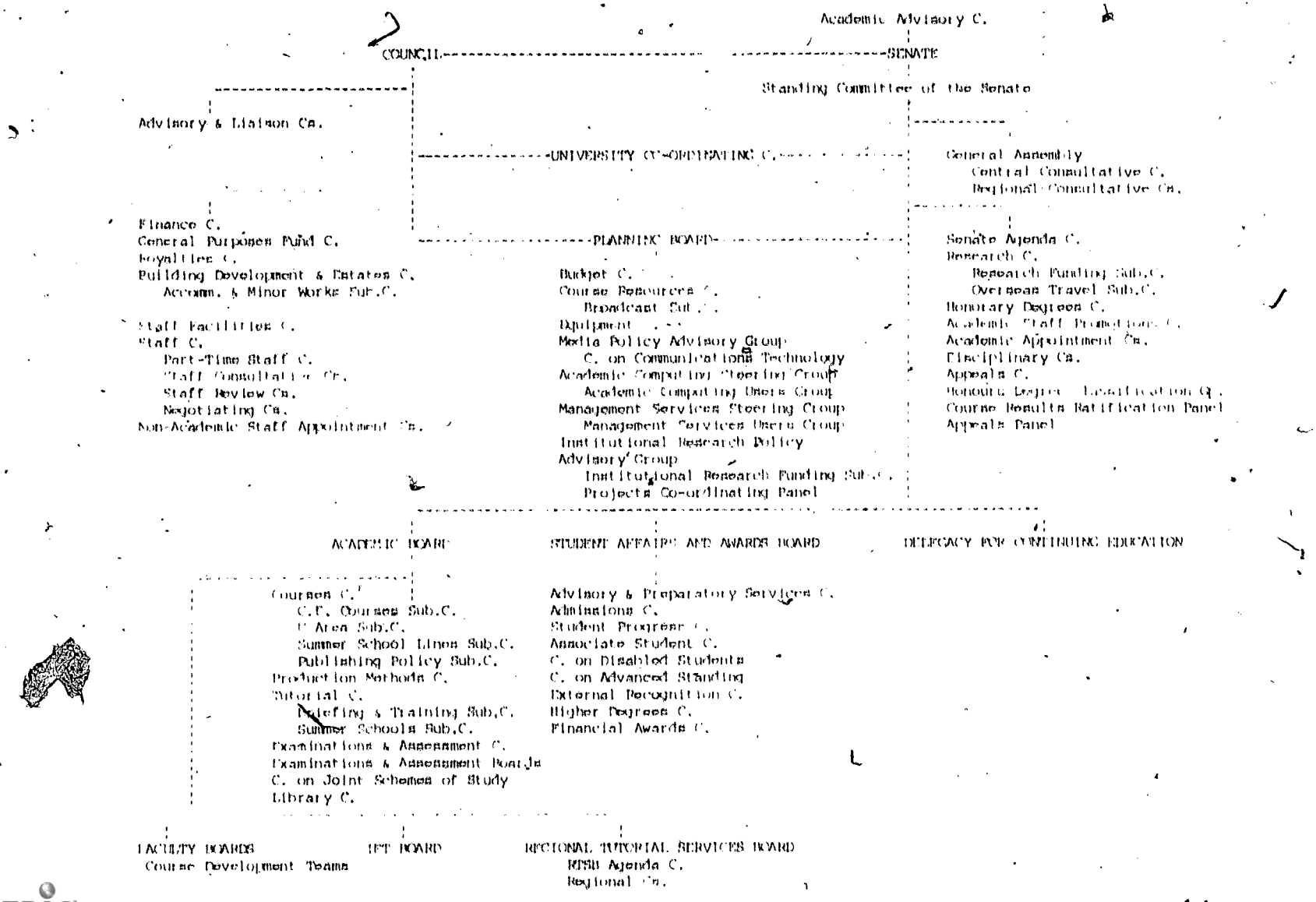


FIGURE 11 - UNIVERSITY COMMITTEE STRUCTURE 1981



280 The cellular nature of conventional universities means that decision-making and participation occur within the department concerned. As indicated in paragraph 233, decision-making at the Open University cannot be cellular in nature. As a direct result, there has been a proliferation of central University committees with heavy faculty, educational technology, and regional representation on them. These "middle tier" committees operate at two levels: major Boards with broad functional responsibilities; and specialised committees, sub-committees and working groups, which report to the boards.

281 Figure 12 attempts to summarise these relationships in diagrammatic form.

LEADERSHIP AND THE INFORMAL STRUCTURE

282 Although the Vice-Chancellor has few specific powers under the Charter, he is the most important figure in the University. As Chairman of Senate, and with a powerful voice on Council, he is naturally at the centre of discussions involving broad questions of policy. Aiding him in the academic direction of the University, and in the promotion of policy over wider areas than the Vice-Chancellor could himself reasonably manage, are the Pro-Vice-Chancellors. The Vice-Chancellor therefore needs to meet, and discuss issues with, his Pro-Vice-Chancellors, and with other senior members of the University - and those meetings constitute in essence its corporate management team. Such meetings have no powers, and are a part of the informal structure of the University.

SUMMARY

283 The number of structures involved in the Open University have created their own problems. Perry (1976: 215-21) summarised them as follows:

- administrative responsibility. The hierarchical management chain between the Vice-Chancellor and Heads of Spending Units and sub-spending units, departments, sections and offices. The hierarchy is strongest in non-academic areas (Administration, Operations) and weaker in academic ones, particularly Faculties, where a more "cellular" structure exists based on disciplines or subject areas on the one hand, and the course teams and research groups on the other.

- functional responsibility. Perry specifically refers to the role of the Pro-Vice-Chancellors, although one post (PVC Continuing Education, created since his book was written) can perhaps be considered more of an administrative, than of a purely functional nature, given the discrete but kindred entities that comprise it (see paragraphs 61-81). The administrative and functional aspects can coincide (for example, within the Secretary's Office, which is organised into Divisions on a functional basis).

- participative democracy. The means whereby individuals can affect policy and otherwise contribute through representation on committees and at Senate but also through the extensive staff consultative committee structure.

- corporate management. The means whereby the Vice-Chancellor can consult on a day-to-day basis with those reporting to him (see paragraph 282).

FIGURE 12 - THE GOVERNMENT STRUCTURE OF THE OPEN UNIVERSITY 1981

TIER	COMMITTEES	COMMENTS
1	COUNCIL ⟷ SENATE	Final decision taking bodies, general responsibility for overall coordination of policy; the composition of the Senate fulfils a major consultative function since all academic staff are members of Senate
2	STAFF COMMITTEE; PLANNING BOARD; ACADEMIC BOARD; STUDENT AFFAIRS AND AWARDS BOARD; DELEGACY FOR CONTINUING EDUCATION	Detailed policy formulation within functional areas; responsible for coordination of policy within these areas; membership a mixture of ex officio appointments and elected representatives
3	SPECIALIST COMMITTEES SUBCOMMITTEES AND AD HOC WORKING GROUPS; SPECIALIST COMMITTEES AND WORKING GROUPS	Specialist committees formulating policy at the detailed level. Membership frequently based largely on elected representatives from the basic academic units of the University (the faculties, IET and RTS), with some ex officio appointments. Also take routine decisions within agreed policy constraints
4	REGIONAL TUTORIAL SERVICES (RTS) BOARD; INSTITUTE OF EDUCATIONAL TECHNOLOGY (IET) BOARD; FACULTY BOARDS (6 in number); CENTRE FOR CONTINUING EDUCATION	Membership consists of all academic members of the respective unit (with the exception of the RTS Board, which has representation). Basic 'grass-roots' democratic bodies, which may propose policy to appropriate bodies in tiers 2 and 3, and comment on policy proposals prior to a final decision being taken at Board and Senate/Council level

284 Commenting on it, he noted that 'no single tidy chart can ever illustrate the complexity of the real situation, because the various objectives of the institution impose different infrastructures; consequently the system must inevitably exist in a perpetual state of conflict' (Perry, 1976: 221). Such conflict is not, however, necessarily destructive. 'The apparent incoherence of our overall system does not reflect a state of chaos; rather it represents a calculated attempt to achieve objectives which individually demand conflicting solutions' (ibid. 221). Overall, 'each [of the four structures] has its own internal coherence, but .... when taken together, [they] appear utterly inchoate' (ibid. 213). Although there are costs involved in making the system work, and changes are currently being considered, there is no doubt that the system as a whole works fairly well. The important point to note, though, is that it is very different from the situation found in conventional universities, and much more complex.

8 COST-EFFICIENCY AND COST-EFFECTIVENESS

285 From an economic point of view, the Open University has been the most extensively studied of the distance teaching universities, and a number of papers have been published: Laidlaw and Layard, 1974; Lumsden and Ritchie, 1975; The Open University, 1977; Mace, 1978; Rumble, 1976; Wagner, 1972, 1973, 1976 and 1977.

286 Laidlaw and Layard (1974) studied the relationship of fixed and variable course costs, and showed that while the variable cost per student-course was, with one exception (D281 New Trends in Geography), lower in the Open University than in conventional British universities, the fixed costs were much higher. They concluded that:

> the real strength of the Open University teaching system, aside from its social aspects, is the potential economics of scale which can be reaped by substituting capital for labour. This means that a major part of the costs of the course became fixed and invariant with respect to student numbers (Laidlaw and Layard, 1974: 456-7).

287 The same researchers showed that in the Open University the break-even point at which it was as cost-efficient as conventional British universities, given its 1972 levels of activity, was 21,691 students. Expansion of OU student numbers above this level would result in a fall in average student costs, and this constituted the case for the University's rapid expansion. On the other hand, the case for developing and presenting higher level courses with relatively smaller numbers of students has to be justified 'on the grounds that they are an integral part of a system providing wider access to complete degree courses rather than on the ground that they are a cheap way of doing this' (ibid. 458).

288 Wagner (1972, 1973) had also concluded that the Open University was cost-efficient and that there was a convincing case for expanding it. His 1972 study showed that the average recurrent cost per student per year was about a quarter of that at conventional universities, although it fell to about one-third if allowance was made for the greater research activity at the latter. On the other hand, the cost per graduate was likely to be only one half that of conventional universities owing to the higher drop-out rate of Open University students (Wagner, 1972: 181).

289 Wagner did another study in 1976 (Wagner, 1977). He first of all checked and broadly confirmed his 1972 conclusions concerning the relative cost advantage of the University in 1973, and then went on to consider the average cost per undergraduate student for the period 1974-6 (for which figures existed) and for 1977-9 (using a simple equation for projecting expenditure). His results are given in Table 25.

Table 25 - Average Cost Per Year Per Open University Undergraduate Student (at 1976 price levels)

Year	Average Cost £ Sterling	Status
1973	560	Actual
1974	525	Actual
1975	494	Actual
1976	513	Budgeted
1977	520	Projected
1978	498	Projected
1979	493	Projected

Figures based on Wagner, 1977.

290 Wagner concluded that 'most of the economies of scale of the Open University were reaped within the first few years of operation and that since then it has been following the conventional university pattern of little increase in productivity' (Wagner, 1977: 371). He advanced several reasons why this should be so, but the main one was that the additional numbers of students in the system had been matched by an increase in the number of courses offered. Even so, the Open University system was still very cost-efficient in comparison with conventional universities. Clearly, however, the extent in which this remains the case depends in part on each of the following factors: the number of students in the system, the number of courses presented, and the media selected by the institution (see Kaye and Rumble, 1981: 231-234).

291 Throughout these studies, there is an assumption that graduates of the Open University are no different, in terms of academic quality, from those of a conventional university. This assumption was questioned by Carnoy and Levin (1975: 396) who suggested that the cost savings of the OU's system might be 'obliterated' by a smaller educational product'. They argued that the average university student 'receives not only instruction and instructional materials, but he receives substantially more tutorial services, contact with fellow students, access to libraries, computers and campus lectures than does his Open University counterpart'. Accordingly:

> a more realistic premise is that the limited nature of the Open University education, as well as the credential effect of particular institutions on earnings and occupational attainments, would suggest that the Open University graduate is not likely to receive either consumption or income benefits, from his education, that are as high as those of a person from the more conventional university setting (Carnoy and Levin, 1975: 396).

292 Further doubts are voiced by Mace (1978). He suggests, for example, that the economic value of an Open University degree to a student (in terms of increased earning power) will be less than is the case for a conventional university student, because the average age of Open University students is higher than that of students in conventional universities, and because there are powerful institutional forces such as internal labour markets which inhibit Open University students' job mobility, and hence the possibility of their benefitting economically from the education that has been gained (Mace, 1978: 299).

293 There seems no doubt, then, that the Open University is cost-efficient. That is, it is economical in the use of resources relative to the output produced, where the quality of the output is held to be constant across the various educational systems being compared.

294 Carnoy and Levin, and Mace, raise additional questions about the cost-effectiveness of the Open University, both in relation to the quality of the output (graduates) and the cost-benefit which will be derived by graduates and the nation as a result of the investment of resources in their education. Their objections are conceptually more difficult to sustain, and to criticise. Firstly, it seems fairly clear that the rate of return to graduates in terms of earnings has fallen recently, in response to the overall economic situation in which both graduate unemployment (the situation of not having a job) or underemployment (the situation of not having a job commensurate with the abilities and training of the graduate) may be more prevalent. In this respect, Open University graduates may in fact be in a better position than conventional university

graduates at the present time, in the sense that many of them are already working. Secondly, it seems clear that a number of Open University students study for the sake of study - rather than to immediately benefit their careers and earning potential. The cost-benefit argument depends at least in part on the concept of education as vocationally or career orientated, with measurement of the benefits received being reflected in salary or wage payments and productivity levels. Education may, however, have other purposes. And, of course, many Open University graduates have benefitted economically as a result of their studies (see paragraph 227). Thirdly, in the United Kingdom, conventional university students normally in the 18 to 23 year old age range, study full-time. During their studies, they forego earnings and are not directly productive within the economy. In contrast, many Open University students are working - a factor which led Wagner (1972: 181) to suggest that the resource cost per Open University student might be as low as one-sixth that of conventional students. Fourthly, these critics ignore the fact that the benefit accruing to an Open University student who enters with low or no formal educational qualifications may in fact be greater than the benefit accruing to a conventional university student who has matriculated from secondary school. Nevertheless Carnoy and Levin, and Mace, are right to raise these issues, which have yet to be adequately investigated.

9 CONCLUSIONS

295 The Open University is a complex organisation serving multiple ends. Any assessment of its overall success must take into account not only the varied nature of its academic programmes, but also its success in using the new educational technologies to teach at a distance, and in creating new organisational structures to meet its needs.

296 There can be no doubt at all that the Open University has had a major impact on British educational provision, so far as provision of credentialled courses is concerned. Prior to its foundation, such courses as were provided in the adult evening class tradition were of a non-vocational nature, and awarded no credit. Moreover, while Colleges of Further Education presented a wide range of offerings ranging from the least demanding and non-vocational to advanced level qualification courses, and hence provided universal access in the sense that almost anyone could be admitted to these institutions and fitted on to some line of study suited to their abilities, access was not open in a fully curricular sense. That is to say, access to many College of Further Education courses is restricted by pre-requisite qualifications. The Open University was, therefore, a major innovator in respect of open access (Glatter and Morgan, 1978: 2). In association with its emphasis on this last point, it has also been a prime innovator in the field of credit transfer in the United Kingdom (see paragraph 53 et seq).

297 Educational egalitarianism, as such, was not of major import in Harold Wilson's early speeches proposing a 'University of the Air'. As Perry (1976: 8-9) comments, Wilson "was much more concerned with the need for extending technological education and for harnessing technological advances in the media of mass communication to the service of education". Moreover, it is the way in which the Open University has approached the problems of educating students at a distance, rather than the objectives of its academic programmes, that have captured the imagination and admiration of the world.

298 Nevertheless, the use of the new educational media implied that the University was seeking a mass audience. At the same time, there was no question that academic standards would be diluted. 'More' would not, at least in the context of the Open University, mean 'worse'. The Government's White Paper of February 1966, 'A University of the Air', juxtaposed excellence and mass delivery: 'A distinguished lecture that at one time might have been heard only by a handful of students, or a few hundreds at most, can now be broadcast to millions of listeners' (my italics). Not only that, 'it was the glamour of a university in name and in actuality that enabled her (Jennie Lee) to win her way' (Perry, 1976: 24). For this reason, Lee and her advisers turned their back on the idea of an Open College which might realistically have provided a 'second chance' to a far greater number of people than has the Open University.

299 Moreover, as Glatter and Morgan (1978: 5-6) point out, at least two of the initially identified target groups of the Open University's undergraduate programme (teachers and other professional workers who had not achieved graduate status, and those who had the minimum qualifications for entry to a conventional university but who had been unsuccessful in the competition for places) were in fact already rather well qualified, so that "the achievement of a degree would be for them not a breakthrough into a previously closed world of academic study but a (no doubt greatly desired) topping-off operation".

300 More importantly, open access as a policy was not to undermine the quality of the University's output. The University was from the start committed to "excellence" and parity of standards with other universities. Internal checks and balances within the British University system - the practice of appointing an Academic Advisory Committee during the first years of a University's existence (with distinguished academics as its members); and the normal British custom of having external examiners of recognised academic standing to vet assessment and examination standards - both ensure that standards in British universities are far more uniform than, for example, is the case in the United States of America. In addition, the Open University has from the start appointed to every Course Team one or more External Assessors. They are always distinguished academics from elsewhere, working in the field(s) concerned. Their job is to ensure that academic quality is objectively upheld throughout the course development phase. Later on, when the course is being presented, some of them act as the external examiner.

301 On the face of it, the Open University has not attracted large numbers of working class or educationally deprived students into its undergraduate programme: its higher degree programme is as 'elitist' as any in Britain: and its associate student/continuing education programme is in part 'elitist' (for example, the Diploma in Reading Development) and in part open to mass audiences, but non-vocational and non-credit giving (for example, the community education courses).

302 Woodley (1981: 57) points out that the Open University has not gone out of its way to attract working class students. Its publicity campaigns have been largely aimed at middle class audiences by means of advertising in quality newspapers and magazines. He suggests that this has been a conscious policy. He cites Perry (1976: 144) who held that a large proportion of working class students might have been politically disastrous for the University, and led to its closure: "This could well have been its fate had we admitted only those in working class occupations, many of whom would have been ill-prepared; the consequent high drop-out might have been politically damning".

303 Certainly, there is plenty of evidence to show that those who are educationally less well-prepared (a factor linked with low socio-economic status) are less likely to succeed in their Open University studies. Woodley (1981: 59) suggests that "if the Open University really wants to make a significant contribution to working class education then it must become more appropriate to such people's needs and more suited to their circumstances. Changes would be necessary in many areas including the curriculum, teaching methods and the financing of studies".

304 McIntosh and Calder (1975: 98-100) discussed the Open University's contribution to the British higher education system in the context of Turner's (1962) classic paper on the differences in attitude to the prevailing norms of upward social mobility, as these are reflected in the education systems in England and America. Turner distinguished between the 'sponsored mobility' of the British educational system and the 'contest mobility' of the American:

"Contest mobility is a system in which elite status is the prize in an open contest and is taken by the aspirants' own efforts. While the "contest" is governed by some rules of fair play, the contestants have wide latitude in the strategies they may employ. Since the "prize" of successful upward mobility is not in the hand of the established elite to give out, the latter are not in a position to determine who shall attain it, and who shall not. Under "sponsored" mobility, elite recruits are chosen by the established elite or their agents, and elite status is given on the basis of some criterion of supposed merit and cannot be taken by any amount of effort or strategy."

305 Contest mobility is designed to give elite status to those who earn it. In this context, judgements about people's ability should not be made prematurely. Each individual is encouraged to think of himself as competing for an elite position for as long as possible. The system avoids any absolute points of selection, and delays clear recognition of the reality of the situation until the individual is too committed to the system to change radically. Under this philosophy schooling is presented as an opportunity - and equality of opportunity becomes practically synonymous with unlimited access.

306 Sponsored mobility is designed to make the best use of the talents in society by sorting each person into his proper niche. The educational system operates as a filter, encouraging the early selection of only the number of persons necessary to fill anticipated vacancies in the elite. Control under the 'sponsorship' system is achieved, according to Turner, "by training the masses to regard themselves as relatively incompetent to manage society, by restricting access to the skills and manners of the elite and by cultivating belief in the superior competence of the elite. The earlier that selection of the elite recruits can be made, the sooner the masses can be taught to accept their inferiority".

307 In England, the dominant mode has been to select out the promising from the unpromising early on in their school life. The 1944 Education Act effectively split the educational system into grammar schools, catering for the elite, and secondary modern and technical schools, catering for the majority. The Labour Government's programme in the 1960s, to combine grammar and secondary modern schools into 'comprehensive' schools, was aimed at breaking the elitist mould of English education - although the concept has been undermined by the common practice of streaming children within comprehensive schools.

308 The difference between the British and American systems is even clearer at the higher education level. As McIntosh and Calder (1975: 100) put it:

> In America access to higher education is a right. Equality of opportunity is popularly interpreted to mean "unlimited access to some form of college" and as Cheek (1971) commented, "America has been committed in principle to universal access to higher education for some time". To deny access to college is to deny equal opportunity. Selection and the setting of standards takes place within the institution (Clark, 1960). This is in sharp contrast with the system in England since the majority of students effectively have never been allowed to drop in (McIntosh, 1975). Many students in England may be subject to no testing at all during their first and even second year of study. In America, on the other hand, students are required to pass a series of tests each semester and the proportion who do not complete the first year adequately is very high.

In this sense the Open University, with its commitment to open admission, more nearly resembles the American system. Students have to pass a variety of tests (credits), and motivation, as in America, is clearly an important factor. The interesting question will be to see whether this institution is simply a temporary aberration for England, or whether the country is starting to see a shift towards the norms of contest mobility. Indeed the educational philosophy of the Labour Party is consistent with a move away from sponsored mobility. The abolition of the 11 plus, the commitment to comprehensives, the introduction of the binary system, and indeed the setting up of the Open University, are all moves in the same direction.

309 Earlier (paragraph 104), reference was made to research by McIntosh and Calder which showed that the educational background of the parents of Open University students is much nearer that of the population as a whole, and that a much higher proportion of its students have working class roots than is the case of conventional university students. As Woolfe (1977: 80) says, 'the major impact of the Open University seems to be in providing a second chance to people who are already socially mobile and who have already aspired to non-manual jobs mainly through the acquisition of educational qualifications. The Open University helps to secure and legitimate this mobility'.

310 While significant numbers of previously disadvantaged persons do succeed with their Open University studies, there is a peculiar and dynamic tension between the high academic level of the University's courses, the use of distance teaching methods, and its open admissions policy. McIntosh and Woodley (1974: 24-5) expressed it as follows: 'The academic level of the courses is only part of the problem. The basic irony remains that we are expecting disadvantaged students to learn independently. Coming as they do from a variety of backgrounds and with a variety of needs, the 'face-to-face dialectic' would benefit them most and could be most easily adapted to their needs".

311 This leads Glatter and Morgan (1978: 17-18) to suggest that:

> the Open University really comprises at least two separate major innovations in the British context. Firstly a university offering universal access both into the institution and through its courses; secondly, a national educational institution using a sophisticated teaching system based predominantly on distance teaching methods. The two innovations are obviously related up to a point, but they are also partly conflicting, as we have seen and the fact that they happened to be joined together in one institution may have owed more than most innovations to historical accident. There is clearly no necessary connection between them: for instance, even where geographical access is a prime consideration, requiring distance teaching, it does not necessarily imply an open admissions policy.

It seems possible that the impact of the second innovation is proving more significant than that of the first, as the nature of the Open University's teaching system has become increasingly familiar because of the accessibility of the media it employs, and as its materials have become ever more widely used in other institutions. 'Its uniqueness derives in part from the nature of its students, but more particularly from its methods of teaching'. (Hall et al., 1975: 231). Such a perception, however, may be role-related: teachers elsewhere in higher education may find the teaching system having the greater impact on them, but the individual student who would not have been admitted to a conventional university but becomes an Open University graduate will have no doubts about which innovation he finds the more significant!

312 Outside of the United Kingdom, though, the significance of the British Open University lies as much in its system as in its particular objectives. Analysing the nature of requests for help and advice addressed to the Open University, Kaye (1980: 11-13), then Deputy Director of its Centre for International Co-operation and Services, pointed out that in practice there seems to be a relatively small number of key areas where the level of demand is high. These high priority areas are:

- information on available materials
- advice on the writing of course texts and creation of audio-visual materials
- advice on the scheduling of materials production
- information and advice on tuition and counselling practices (including correspondence tuition)
- advice on the initial planning of new projects
- advice on the financial implications of ongoing plans.

10 BIBLIOGRAPHICAL MATERIALS ON THE OPEN UNIVERSITY

313 The volume of published and unpublished material on the British Open University is enormous. Inevitably, any selection must be incomplete and will tend to reflect the views of the author. Two works describing the institution in considerable detail are:

Perry,W. (1976) Open University: a Personal Account by the first Vice-Chancellor. Milton Keynes: The Open University Press.

Open University (1977) The Open University of the United Kingdom: a Short Course. Milton Keynes: The Open University Press.

These should be supplemented by the annual Report of the Vice-Chancellor, and by the annual Digest of Statistics which is produced in two volumes, the first dealing with Students and Courses, the second with Accommodation, Units, Staffing and Finance. The edition covering the years 1971-1981 is now available.

314 A large number of articles and papers have been written on particular aspects of the Open University. Its Institute of Educational Technology periodically produces a bibliography of materials on the Open University.

315 Of particular interest on the University's students are the following:

McIntosh,N., Calder,J., and Swift,B. (1976), A degree of difference. A study of the first year's intake to the Open University of the United Kingdom. Guildford: Society for Research into Higher Education.

McIntosh,N.E., Woodley,A., and Morrison,V. (1980) Student demand and progress at the Open University - the first eight years. Distance Education, 1, 37-60.

Keegan,D. (1980) Drop-outs at the Open University. The Australian Journal of Education, 24,44-55.

316 The University's academic programmes and the regulations governing student progress, as well as its general teaching system, are described in the various student and other handbooks which are produced, usually on an annual basis. The current range of handbooks are (with their dates of publication in parentheses):

- Guide for Applicants for 1982 BA Degree Courses (1980)
- First Year Student Handbook. Produced for first year undergraduate students and associate students of the Open University in 1982. (1981)
- The Open University Undergraduate Courses 1982. (1981)
- Guide to the Associate Student Programme 1982. (1981)
- Postgraduate Prospectus and Student Handbook 1982. (1981)

317 Of interest, too, is

Clennell,S., Peters,J., and Sewart,D. (1977) Teaching for the Open University. Milton Keynes: The Open University.

This booklet describes the work of the University's course tutors and tutor counsellors. It can be supplemented by:

Sewart,D. (1978) Continuity of concern for students in a system of learning at a distance. Hagen: Zentrales Institut fur Fernstudienforschung

Sewart,D. (1981) Distance teaching: a contradiction in terms? Teaching at a Distance, 19, 8-18.

There are also a wealth of articles in the Open University's own journal, Teaching at a Distance, which deals with particular aspects of its regional system, as well as with many other matters. Teaching at a Distance began to appear in 1974, and has been published triennially (now biannually) ever since.

318 In spite of their age, Lewis's three articles on course production at the Open University retain interest. They are:

Lewis,B.N. (1971) Course Production at the Open University I: Some Basic Problems. British Journal of Educational Technology, 2, 1, 4-13.

Lewis,B.N. (1971) Course Production at the Open University II: Activities and Activity Networks. British Journal of Educational Technology, 2, 2, 111-23.

Lewis,B.N. (1971) Course Production at the Open University III: Planning and Scheduling. British Journal of Educational Technology, 2, 3, 189-204.

319 The course team has been held to be a major innovation in higher education. The literature on 'course teams' is expanding. Interested readers could start by looking at the following works:

Blowers, A. (1979) Carry on Course Teams. Teaching at a Distance, 16, 54-7.

Drake, M. (1979) The curse of the course team. Teaching at a Distance, 16, 50-53.

Gagen, D. (1981) The well-tempered course team. Teaching at a Distance, 19, 67-69.

Mason, J. (1979) Cooperation in course teams at the Open University. In Cox, R. (ed) Co-operation and Choice in Higher Education. London: University of London Teaching Methods Unit.

Mason, J. (1976) Life Inside the Course Team, Teaching at a Distance, 5, 27-33.

Mills, D. (1981) Course teams for all seasons. Teaching at a Distance 19, 60-1.

Riley, J. (1976) Course teams at the Open University. Studies in Higher Education. 1.

Riley, J. (1978) How to Use Consultants Successfully. Milton Keynes: Open University. Mimeograph.

Riley, J. (1979) I wonder what it's like to write a unit. Teaching at a Distance, 14, 1-8.

Riley, J. (1981) Course team alternatives. Teaching at a Distance, 19, 69-71.

320 Another aspect of the Open University's system which has attracted considerable attention is the role of the educational technologist. Reference, in an incomplete list, can be had to:

Gale, J. (1980) Proteus in a Kaleidoscope: The educational technologist in Open University Course Production. Journal of Educational Television and Other Media, 7, 1, 4-7.

and to a number of articles which appeared in the Open University issue of the British Journal of Educational Technology (volume 7) in 1976.

321 The formal decision-making and organisational structure of the Open University is detailed in the regularly updated:

- Government Structure Handbook (1981)

Specific aspects of the decision-making process as these affect course production are detailed in two internal handbooks:

- Course production/presentation handbook. A practical guide to the procedures of undergraduate course production and presentation (September 1980)
- Course production and presentation. Manual of procedures for resource allocation. (January 1981)

Descriptions of the decision-making and organisational structures of the Open University as they were in about 1976/7 appear in Perry (1976) and the Open University (1977) (see paragraph 304).

322 As well as writing about student progress, McIntosh has written about the problems of evaluating distance teaching systems - particularly the Open University. Reference may be had to the following:

McIntosh, N.E. (1972) Research for a new institution. The Open University. London: Society for Research in Higher Education.

McIntosh, N.E. (1977) Evaluation and Institutional Research: Aids to Decision-making and Innovation. International Journal of Institutional Management in Higher Education, 1, 119-27.

McIntosh, N.E. (1978) Evaluation and Institutional Research: the Problems Involved in Evaluating One Course or Educational Program. International Journal of Institutional Management in Higher Education, 2, 1, 5-19.

One can also consult Rumble's 1981 article, which deals with the evaluation of "Open University type" institutions, rather than with the particular case of the Open University.

Rumble, G. (1981) Evaluating Autonomous Multi-media Distance Learning Systems: a practical approach. Distance Education, 2, 1, 64-90.

323 The economics of the Open University are dealt with in a number of articles, of which the following are the best introductions:

Laidlaw, B., and Layard, R. (1974) Traditional versus Open University Teaching Methods: a cost comparison. Higher Education, 3, 439-68.

Mace, J. (1978) Mythology in the making: is the Open University really cost-effective? Higher Education, 7, 295-309.

Wagner, L. (1977) The economics of the Open University revisited. Higher Education, 6, 359-81.

324 Descriptions of the University's planning and budgetary procedures - now rather dated - are to be found in:

Rumble, G. (1977) Planning in the Open University. Paper presented to the International Institute for Educational Planning/British Council course for educational planners, London, 11 March 1977.

Rumble, G. and Clinch, J. (1978) Planning and resource allocation in the Open University. Module 18 of the Training Programme for Newly Appointed Grade 1A Administrators. Milton Keynes: The Open University.

325 A recent book edited by Kaye and Rumble has discussed 'Open University-type' institutions in some detail - using a system-based analysis to underpin the analysis provided. This book:

Kaye, A., and Rumble, G., (1981) Distance teaching for higher and adult eduction. London: Croom Helm.

was written by a group of staff attached to the University's Centre for International Cooperation and Services. While it takes an international viewpoint, it draws heavily on Open University experience. It can be supplemented by two books, the second of which is still in preparation:

Kaye, A., and Harry, K. (1981) Using the Media for adult basic education. London: Croom Helm.

Rumble, G., and Harry, K. (1982) The distance teaching universities. London: Croom Helm.

The former has a chapter by Judith Calder and Nicholas Farnes on the Open University's Community Education programme - and places this within a wider British and European context. The latter has a chapter by Keith Harry on the Open University, and places it in the context of the international development of autonomous, distance-teaching universities.

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