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STUDENT SUPPORT SYSTEMS IN DISTANCE EDUCATION

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When I was invited to offer a presentation on student support services here at this ICDE World Conference, the first thing I did was to look back to the major presentations made at previous ICDE Conferences to see what had been said on this topic so that I could refer to that and develop some of the thinking that had taken place. I managed to locate all of the Conference Books and papers back to the Conference in New Delhi in 1978 but I could not find within them any comprehensive analysis of student support services although there were papers on drop out, study centres and other individual elements. It is probably not too difficult to understand why this is the case.

If we were to examine the elements of course production, we would see that they varied somewhat, with audio and video elements being added to the basic printed materials in some systems. But such variation is relatively minor. A discussion of course production can normally assume a generic similarity across the whole range of distance education. When we turn to student support services, the same cannot be said as these may or may not embrace:

- \* class teaching at study centres;
- \* individual tutorials at study centres or other locations;
- \* annual residential schools (compulsory or optional);
- \* study or self-help groups;
- \* social events;
- \* counselling sessions at study centres;
- \* correspondence with tutor and counsellor;
- \* telephone contact with tutor and counsellor;
- \* group telephone tutorials;
- \* radio tutorials;
- \* audio cassette "correspondence";
- \* computer mediated communication;
- \* student newspapers.

This list is by no means exhaustive. But it does serve to illustrate that there is an almost infinite variation in student support systems in distance education. Each student support system represented in this audience today is unique. In this paper I am not even attempting to cover such variation. What I will be attempting to do is to cover a number of principles in the area of student support. I will also be attempting to demonstrate that what is offered in student support depends on:

- \* the market aimed at;
- \* the package which is employed.

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- \* the delivery system;
- \* the image of the organisation;
- \* the culture in which it operates.

Distance education is seen by some theorists as an entirely separate form of education, by others merely as taking a place on a continuum of types of education which has at one end the totally supportive one to one face to face situation and at the other end a process of learning from materials which is devoid of human interaction. I tend to favour this latter view and, although I accept that there is a wide variation on the continuum of education, my own involvement in the oversight of a large distance education student support system (the UK Open University) leads me to believe that I am not doing anything generically different than my counterparts in traditional education systems.

What do I mean by this? Let me look back briefly at the origins of distance education. Most people see the origins in this century. It is widely viewed as an industrialised form of teaching and learning which is reliant on good and swift communications over distances, in particular the rail and postal services which were developed in the nineteenth century, and it draws upon the processes of industry to break down complex operations into constituent parts and to carry these out with considerable savings in efficiency without any loss of effectiveness.

The description of distance education as an industrialised form of teaching and learning was first made by Otto Peters (1973) in his seminal work. The importance of his definition is now widely accepted and he highlighted the relevant characteristics of distance education as follows:

- \* the division of labour in the teaching process itself which allows a rationalisation of the elements of the teaching process;
- \* the use of technical equipment to ensure a product of constant quality in theoretically unlimited volumes;
- \* the application of organisational principles to cut down on unnecessary effort on the part of those teaching and those learning;
- \* the use of technical media such as television and radio to replace teachers and cater for volume;
- \* the testing of the product, the teaching package, to eliminate mistakes and guarantee a standard;
- \* the monitoring of the teaching system by scientific methods to maintain quality and standards.

In general I agree with this definition; indeed it would be hard to disagree.

Now let me turn to traditional Higher Education. And here I am looking at the UK but most of what I am saying is applicable throughout the world but not necessarily in the same time frame. The principles underlying higher education before the turn of this century were, for the most part, those of personal treatment tailored to the individual requirements of the students. This is epitomised nowhere more clearly than in the Oxford tutorial tradition in the United Kingdom but is no less apparent in the United States of America

as well as other developed countries. Within this system the role of the tutors was to examine the needs of individual students who might be assigned to them, suggest the pattern of learning which each of these students should undertake and advise on reading lists and the whole pattern of study. Such relationships usually became personal individual relationships between tutors and students and could take on an advisory capacity well beyond the strictly academic development of the student. In general it is clear that the early principles of higher education were student centred and individualised. They belong to the simple "cottage industry" approach which has its origins in the Socratic philosophy and practices of teaching. The tutor was wholly responsible for all aspects of the learning process.

But the moves towards the education of greater numbers of students from a much wider diversity of backgrounds required a move away from the idiosyncrasies and costs of the personal tutor system. The increasing flow of students into higher education was met by a change in the relationship between tutor and student and the processes of industry became apparent in mass higher education. There was a need to bring some of the principles of industry and management into this higher volume activity. No longer was the tutor responsible for providing the student with an individual, coherent and integrated pattern for learning. The emphasis moved from the learning experience of individual students and passed to a teaching process which was divided up between a range of teachers, all responsible for individual specialisms, who taught large groups of students in a lecture theatre. The individual learning process lingered in a few institutions but the new institutions of higher education adopted the industrialised mode and the individualised mode of learning was relegated to post-graduate studies.

The move from the artisan or cottage industry system of education became immediately clear in the UK in the creation of the new universities at the end of the last century and the expansion of these institutions for the first sixty years of this century to meet the expansion of the student base. The varied syllabus in which a tutor encouraged a student to explore widely within unrestricted areas of knowledge was replaced by the syllabus which defined what had to be learned and the length of time to be expended on this syllabus. The syllabus itself demanded sub-divisions of knowledge and led to the identification of disciplines such as history, philosophy, literature, chemistry, biology etc. In traditional mass higher education today students follow a series of predetermined courses which have been assessed as leading to a particular award. Each of these courses is taught by a separate expert and so the educational process is not related to one teacher but a range of individual experts. The whole system is "managed" so as to achieve the best output from the costly academic staff while maintaining a breadth of provision which allows the institution to be accepted as a provider of education.

Perhaps it would be useful to look at the changes that have appeared in the learning process which had originally stemmed from the one to one tutor student relationship. Most obvious is the depersonalisation of the process. Students no longer have a relationship with an individual tutor and hence with the institution. They see themselves, and are seen, as similar if not identical parts on a production line. The educational process is reduced from dialogue to monologue. In mass higher education the professor gives a lecture to a large audience. The professor is active, the audience wholly passive. The delivery is generalised. Its aim is to appeal to the whole audience or, in the unlikely event of this being possible, at least to the largest possible

part of the audience. There can be no attempt to individualise the process for each member of the audience.

Mass higher education has recognised, to some extent, the differences between the lecture and the one to one teaching and learning process. It has recognised that the depersonalised system creates considerable gaps and, in compliance with the principles of mechanisation, has attempted to reassemble the previous structure by an assembly line method in which all the parts are fitted to the whole by a series of specialists.

To comprehend the studentship of the individual in its entirety, the new mass higher education instituted "personal tutors" or "supervisors". These personal tutors were members of the academic staff of the institution who specialised in particular discipline areas but, as a part of their work, had a responsibility for a group of students across the whole range of their academic pursuits. Such personal tutors or supervisors monitored the progress of individual students towards the ultimate goal - a degree. They gave advice on "options" or choice of course where these existed and maintained that role throughout the students' careers, from entry into the University up to graduation.

Most institutions of higher education have adopted a role of this sort but here again volume becomes an important factor. A supervisor might reasonably be expected to keep up to date with and monitor effectively the work and progress of a small number of students. Increased student/tutor ratios have led to attempts to mechanise this system by setting up posts such as sub-Dean, responsible for large numbers of students and specialising in this activity of student progress.

Further sub-divisions of the original all embracing role of personal tutor can also be seen. Many universities have instituted a Careers Advisory Service. A further specialist development has occurred in the setting up of Student Health Services.

Returning to my earlier thesis, we can see, in mass higher education, the bureaucratisation and mechanisation of education, an assembly line approach in which the product, representing studentship, is assembled by a number of specialists, many in narrow academic disciplines but some also in "support areas" which are at least as critical to the attainment of the final objective of successful completion of undergraduate studies. Mass higher education has acquired the characteristics and management approaches of large scale industry.

In that it is an industrialised form of teaching and learning, we must expect its management to reflect the methods and practices which are witnessed in industry.

The principles of classical management theory were based upon the notions of organisations as machines which could be divided on the basis of functional specialisations:

- \* each functional department would have its own hierarchical mode of organisation with a clear line of authority from superior to subordinate which ran from top to bottom of the organisation;

- \* reporting lines would be simple with no areas of divided responsibility;
- \* individuals would carry out specialised tasks within a limited area of responsibility;
- \* within that hierarchical model the responsibility of one individual would be limited to a number of people who might reasonably be coordinated and controlled;
- \* authority and responsibility for activities would be properly defined;
- \* authority would be centralised;
- \* the interest of the individuals would be subordinate to the interests of the organisation.

The classical management theorists approached the design and management of an organisation in much the same way as an engineer approaches the design of a machine in which each of the parts is designed to have a particular role and to work together to a strict pattern and as part of the whole. This was the basis of management theory early in the first half of this century. It is not surprising therefore that we find it in the move to mass higher education which also began at this time. The strengths of this form of management are apparent in organisations which can operate in an environment similar to that of a machine. The operation intended must be straightforward and inputs and outputs must be constant. Organisations structured in this way are not designed for innovation and have difficulty adapting themselves to changing circumstances. Anyone witnessing the difficulties faced by higher education in the United Kingdom and Australia in their attempts to come to terms with directions of government in relation to students numbers, courses and structures will see the difficulties inherent in the adoption of many of these principles of classical management and scientific management theory in our present institutions of higher education.

If management theory in the first part of this century looked to the analogy of the machine, in the last half of this century it has looked to the analogy of the organism or the brain. This is the systems approach to organisation and management. This approach defines the organisation as interrelated subsystems:

- \* these subsystems are cells or organs of the body and might be quite complex in themselves;
- \* where the classical and scientific management theory defines closed systems which exist in themselves as part of the perfect design, these new theories define open systems in which there is a continuous exchange with the environment in terms of input, output and feedback;
- \* the regulatory systems must be diverse enough to deal with the environment in which the organisation exists;
- \* there is not one correct way of achieving an outcome but rather several, or indeed an infinite number since the outcome required is infinitely changing;

- \* the system is able to evolve to deal with new challenges and opportunities and thus will not run down or decay if the environment becomes hostile or even marginally less favourable.

Where is this thesis leading? The purpose is to highlight, through the progress from individual to mass higher education in the traditional form over a century, the dangers inherent in an industrialised approach to higher education if this process is not thought out and planned as a whole and if the architects of the mode lose sight, even for a moment, of the goal which is the education of the individual and the support which allows individuals from a variety of diverse backgrounds to mould the knowledge which they obtain from higher education to the richness of their pre-existing framework of experience. Higher education must be ever alert to the threat that teaching can so easily become instruction and even indoctrination rather than education.

Distance education has merely taken the industrialisation of mass higher education a few steps further down the road. In distance education it is easier to see the divisions of the traditional teaching function and this method of education uses existing industrialised systems such as large volume printing and publication, post, telecommunications etc.

In distance education, however, the independence of time and space leads more readily to a division into discrete elements. The overall design of the distance education system is, therefore, of paramount importance. If the discrete elements of the process do not fit together as a coherent whole from the standpoint of the student, the objective cannot be achieved. The specialists who are involved in these discrete elements of distance education rarely comprehend the interstices of any of the other elements or their interrelationship. There is a need, therefore, for a master plan and close control over the elements.

There is a beguiling temptation to assume in distance education that the problems of teaching - and therefore of students learning - can be resolved by the construction of perfect discrete elements which can be tested and refined almost in laboratory conditions until they are precisely what is required. The most obvious example of this is the excessive concentration on the hypothetically perfect package of instructional materials (course units, set books, radio and television programmes etc). This approach tacitly assumes the subordination of the needs of the individual as a learner to the teaching package. The teaching package takes the place of the lecture and student lecture notes in traditional mass higher education. The emphasis on instruction can be, and often is, so much greater in distance education where the students are normally studying alone and at a distance. For them there is no peer group against which to judge themselves and their own personal reaction to the package of materials. The possibilities for instruction to the point of indoctrination rather than education are so much greater.

Mass higher education has, as we have seen, begun to recognise the needs of the individual student learning in an industrialised process where teaching is the dominant characteristic. Distance education, in many of its manifestations, still lags somewhat behind. There have been a number of much vaunted experiments in distance education which have been seen as successes, not least the United Kingdom Open University which has recognised the need for general student support services and concentrated resources on this function. However, the success of the United Kingdom Open University rests upon a number

of cohorts of highly motivated, often academically well prepared students. For those who are less well prepared, less well motivated or more socially disadvantaged the success rate has been nowhere near as satisfactory. The United Kingdom Open University has recently determined that it will concentrate on "Access" in an attempt to broaden its student base. The new cohorts of students whom it hopes to attract will need more individual support to help them relate to the body of knowledge which higher education is there to provide. It is a challenge which faces traditional and non traditional higher education and in the 1990s it will bring to the forefront the need for further analysis of the process of teaching and learning in higher education.

Let me take a few tentative steps towards such an analysis. The student support element of distance education is a service industry which meets most of the general criteria for service industries:

- \* a service industry is an activity;
- \* a service industry is intangible and relates to a method of transmitting a product rather than to the product itself - it cannot be transported or stored;
- \* a service industry relates a product to its customers such that the production and consumption are connected - the services are produced at the point of consumption or are produced and consumed almost simultaneously;
- \* customers take part in the process of a service industry.

Earlier I noted that management theory had moved in the second half of this century away from the analogy of the machine and towards that of the organism or brain. This metaphor is particularly appropriate to service industries which are seen as a continuous interchange and interaction between:

- \* the market segment aimed at;
- \* the service package which is employed;
- \* the delivery system;
- \* the image of the organisation;
- \* the culture in which it operates.

The traditional stress on intangibility, in relation to a service, as opposed to tangibility, in relation to goods is probably not satisfactory. We might like to see service as something which is both produced and consumed simultaneously. The client is always at the centre of the service and relates to the physical system and procedures which are used, the overall strategy of the organisation and the people in the organisation who are providing the service. When the client comes into contact with the organisation, there is a "moment of truth" at which the client receives a good, bad or indifferent impression of the service. In a service industry there are a number of "moments of truth" and the cumulative effects of these determines whether the client is dissatisfied (drops out) or satisfied (completes the course). The essence of managing a service industry is creating a positive experience for the client in relation to each of these "moments of truth".

The success or failure of student support will be judged on a number of performance indicators. The most simple and obvious of these is probably the rate of success of the students. Drop out, wastage or attrition are and have



been major guides to the success of distance education systems. But drop out has to be judged in economic as well as educational terms. We might posit a system of education which admitted 100,000 students per year and offered them no further support of any sort until the examination at the end of the year. Such a system would have most of its expenditure in direct student costs centred on the sets of course materials provided for the vast student intake. The cost of its student support services would be zero. Students would receive no support from the institution and would merely be required to study on their own and submit for an examination rarely complete the course. London University External Degrees were possibly the best known example of such a system but there is a documented history of such systems and it was on the basis of this known wastage rate in correspondence education that The Times on the 7 June 1968 attacked the concept of the UK Open University by quoting the example of the Chicago experiment where some 53,000 out of a total population of 8 million participated in credit courses but of these only 0.2% gained a degree and 2% gained some form of credit. The system such as I have posited might achieve at best a success rate of 5,000 students and possibly a good deal less.

We might contrast this with a system which admits only 10,000 students per year but provides them with a comprehensive support system of regular contacts and advice. The initial direct costs of such a system in terms of the costs of the materials are only one tenth of our first system but the costs of the student support services may be such as to consume the other nine tenths of the initial costs of our first system. For the sake of this example I am assuming that the success rate of the second system is also 5,000 students but this time it is 50% of the intake rather than 5% of the intake.

In this theoretical example - but one which can be roughly paralleled by analysis of historical distance education systems - the per capita costs of the system are identical when measured in successful students and, assuming for the sake of the example that the fixed costs are equal, there is no difference between the systems in simple economic terms. The two examples epitomise, perhaps, different approaches, that of a manufacturing industry approach and that of a service industry approach and they add point to a basic question for distance education.

The student support system in distance education cannot be seen out of context of the philosophy of education which exists in the part of the world in which it is operating. The tradition of individual support for students in higher education is very high in Australia, the United States and British traditional systems. The practices of industrialisation have been applied to mass higher education, as we have seen, but attempts have been made to build into these systems the view of a student as a learner in a system rather than as a product of the teaching system. This philosophy of individual support does not exist - or certainly does not exist to the same extent - in several other areas of the world. Thus we have in traditional higher education two contrasting philosophies - or perhaps it would be better to say two widely separated points on the continuum - the one in which students are expected to fend for themselves and where success against the system is in itself seen as a valuable part of the educational process and the other in which students are expected to succeed and where failure is not regarded as a failure by the student but as a failure by the institution. The contrast between the philosophies of education is epitomised in the now quite popular anecdote in distance education of the professor of mathematics in a distance education system who stated that his mathematics courses were the best mathematics

courses in any institution in his country because the drop out rate for students on his courses was higher than for any other course. The story is often told in the UK as apocryphal; it is in fact perfectly true.

A major question which has to be asked with regard to student support services is - what is the educational philosophy in which we are operating and where does it exist on the continuum to which I have just referred? Is it the institution based teaching approach, the manufacturing industry, or the student based approach, the service industry? Nor is this quite such a simple question of alternative choice. The objectives of a student based system cannot be defined simply as a requirement to guarantee success for all students. Cost per student success is a performance indicator used both in traditional and distance education systems. The greater the input to the provision of student support services, the greater the success rate. But this is not a straight line equation. As the level of support gets beyond a certain point, the curve of student success seems to flatten out. For those responsible for creating student support systems there is an overall decision to be made concerning an "acceptable" rate of dropout and this will be arrived at in terms of the overall philosophy of education but also through an analysis of the overall costs of the institution and the relative value for money between production and presentation activities.

There is nowhere a widely accepted standard against which this decision can be taken but it is one which, once taken on behalf of the institution, must be taken again and again in terms of the analysis of the student body. What are the relative costs of providing similar support to distance education students in an urban area as opposed to a scattered rural area? What are the pressures to provide a good service in rural areas both from within the institution itself and from the local community, public funding bodies etc? What are the relative costs of supporting minority groups such as the disabled or ethnic minorities? What is the policy of the institution to such groups?

Distance education is an industrialised form of teaching and learning but, given the increasing emphasis on the clients in various parts of the world, it is to service industry that we must look for models of student support rather than manufacturing industry. The systems approach to organisation, with particular reference to the needs of the customer and the human relations approach, is more meaningful than the classical or scientific approach.

Defined in the narrowest of contexts and in isolation from the other elements, the course materials subsystem in distance education might be seen to operate most closely to the principles of manufacturing industry. The product of the course materials subsystem is narrowly circumscribed as a series of course materials, prepared initially by academic authors, supported by educational technologists, graphic designers, editors and sometimes sound and vision producers and technicians and finally appearing as texts and programmes. The financial structure of all distance education institutions is such that the production of materials is the largest, normally by far the largest, cost centre. This cost is justified through student volume factors and the amortisation of the initial cost over several large student cohorts. This provides for large scale distance education systems a recognised cost advantage over traditional systems.

However, no subsystem can be seen in isolation and the course materials subsystem must be integrated, to a greater or lesser extent, with the student support subsystem. The continuing problem in distance education overall is

the need to manage an organisation in which the major cost centre runs on the principles of manufacturing industry and the product of this, course materials, is mediated to the clients through a student support subsystem which must run on the principles of a service industry. Moreover, the dominant ethos of the distance education organisation as a whole must be that of a service industry. It will have to exist in the general competitive environment of education. If distance education cannot provide an individualised service, it will not be able to compete against traditional education or will be left only that niche of the market which traditional education cannot serve or does not wish to serve.

The tension between course production and student support subsystems is not simply one of esoteric management theory. It exists as a major element in the financial and strategic planning of the institution. In an ideal world and in a steady state, an organisation might devote a fixed percentage of its total resources to course production and maintenance and a fixed proportion to student services. The theoretical steady state does not exist in reality. A wish to increase the range of courses or to remake or update sooner than initially planned creates demands for additional funding which has to come from student support services and/or, where this is applicable, from student fees. Since the reputation of the institution is normally seen to rest on the quality of its materials in the first instance, pressures to alter the balance of funding between course production and presentation can be considerable. A classic failure of management in distance education is to develop a structure in which the remake of a course vies directly for a limited pot of money with the hire of a new study centre, the relining of the boiler or the upgrading of desk top publishing equipment. In dual mode systems the options can be even more difficult to disentangle. There is a beguiling view of management that to analyse decision making in terms of options of this sort offers clarity for management decision by reducing complex problems to apparently simple options. Unfortunately the opposite is true. Management at the strategic level in distance education must recognise certain general financial principles in relation to the total budget of the institution. While a transfer of resource between course production and presentation might exist from year to year, it must operate only within specific parameters and recognise these limits if it is not to have an adverse effect on the student and potential student population.

The relationship of student support to the institution as a whole is of prime importance. There must be a recognition of the tension between subsystems which quite properly are set up on manufacturing industry lines and those which have to function as a service industry. The impact of the course materials subsystem should not be underestimated. It is easy to see the course materials as the major product of distance education. After all, they stand as the most obvious difference between a distance education system and a traditional system. They are tangible and might be perceived as the end result of an industrial process. In addition they have a relationship with the students which can be measured quite easily, whereas the utilisation of services is far less easy to define and will vary from one student to another.

But the product of all education, including distance education is, in fact, the students. The organisation, as a service industry, is relating the tangible product (course materials) to its customers. The objective of the institution is not the production of highly acclaimed course materials, it is the production of successful students. Those involved in the student support services must recognise the tension between the materials, where the

principles of manufacturing industry play no small part, and service industry. But this must exist as constructive tension rather than destructive tension. Perhaps the most important means of accomplishing this is to establish and build in from the earliest possible stage the interrelationship between the materials and the services.

This leads me immediately to the question of resource allocation in the institution as a whole. The dominant philosophy of education in your country will dictate an "acceptable" rate of attrition. To put it another way, there are different parameters for the range of successful as opposed to unsuccessful clients. Your organisation will have to operate somewhere within this range and, if it is hoping to prosper and exists in a tradition of learner centred education, it will have to aim to be in the top quartile of success as measured by this parameter. Students will not easily achieve success if course materials are of poor quality. Nor will they usually achieve success if they are not dealt with individually through the student support subsystem. As we have seen, the course materials production is a high initial cost and low volume cost operation. Student support is the opposite. There is, therefore, a complex interrelationship between student volumes, course production costs and student support costs. This is a strategic question for those who manage resource allocation in the institution as a whole. Since student support is almost wholly volume related, an increase in the unit cost may not be significant in a small population system. In a large population system the impact can be dramatic and critical.

Perhaps the significance of this can be best appreciated from an example. The student support system of the UK Open University provides for a payment to the staff engaged in tuition and counselling in relation to the number of students allocated to them, the number of "contact" hours worked and the number of assignments marked. If a small distance education system increased by one the number of assignments marked for each of its courses, the impact on the total finances might not be too significant. Such a move in the UK Open University would, however, lead to an increase of over £1 million, almost 1% of the institution's total budget and also approximately equal to the cost of producing a whole course. Moreover such an increase is a recurrent cost, whereas course production is mostly "one off" with a small recurrent and volume related cost. So the relationship of student support to other elements becomes more critical the greater the size of the institution.

And finally a few words about decision making processes. Management in relation to the decision making structure in an institution must involve policy formulation and the traditional management of universities is inappropriate for distance education. As an industrialised form of teaching and learning it is to industry that it must look for its decision making structure. This flies in the face of the educational ethos of many countries but its importance cannot be stressed too highly.

But management in relation to decision making within the student support area is no less vital. In a small scale organisation there can be a personal relationship between the individual client and the organisation. In a complex organisation this personal relationship, of necessity, disappears. There is a gulf between the system, in our case the distance education organisation, and the individuals, in our case the students. Within this gulf there has grown up a number of intermediaries who seek to adapt the system to the individual needs of the clients. In education these people are tutors, counsellors, advisors etc. The primary concern of these intermediaries is not for the system itself but for the students and they seek to represent individual needs to such an extent that they force the system to take

cognisance of these needs. This is a strength and a weakness for the student support area. It is a strength because it leads to a better deal for the students through the intermediaries. It is a weakness because the intermediaries, in acting for the student, can also be seen as acting against the institution as a whole. The management of student support needs to take account of the needs of the students as expressed by themselves or by the intermediaries in a structure which manages the intermediaries within the resource, policy and planning definition of the subsystem.

Traditional teachers are no less intermediaries but pose much more simple local management problems. For traditional teachers the requirement to serve the students in a particular way is generic to all of them within a particular institution. They will be, or will see themselves to be, employed and directed by an authority beyond the local Head Master or Vice-Chancellor, whom they will consider as benign management, constrained by distant and uncontrollable features such as government policy and funding. In large scale student support services the same is not true (as I know to my cost). Failure to provide more for students is seen as failure of the management of the student support area in relation to the management of other areas, focusing attention on the importance of management and leadership within the student support area itself.

Student support services is the element of distance education most nearly akin to traditional education: it is the interface between the institution and its students. The problem of management relates, therefore, to a subsystem which is apparently carrying out a traditional role and consequently might appear to observe the traditional management practices of education. The reality is far from this. Student support services have to take cognisance of the course materials, which form the major part of the traditional role, as well as of other subsystems. One approach to this problem, currently taken by many of the large scale distance teaching institutions, is to draw up role definitions of those engaged in the interface with the students, relating these to one another, to the students and to the subsystem as well as to the institution as a whole. This is a useful way of highlighting the role of the intermediaries in distance education and can avoid confusion with the traditional roles. But here again, care must be taken on the interrelationship of these roles. What is being designed is not a machine in which every part performs a separate function operating in a strict sequence but rather an organism in which the cells are constantly relating to one another in patterns which are duplicated throughout the organism so that the loss of a cell does not mean the failure of the system and cells can be added without putting a stop to the overall objective of the organism but rather changing its direction marginally without the need for the design of a completely new machine.

It is possible to transfer between countries the elements which make up course production. The same cannot be said for a student support services. These

- \* must be constructed in the context of the almost infinite needs of the clients;
- \* are dependent on the educational ethos of the region and the institution;

- \* are dependent on the dispersal of the student body, elements of resource and the curriculum or product of the course production subsystem.
- \* are dependent on the generic differences in the student body which it has been set up to serve.

No detailed prescription of student support services in general can be made. Each system must be derived rather from a number of principles.

If you were to visit the UKOU and look at its course production system, you would find that you could transport it virtually intact and it would work in your own country and in any country throughout the world. If, on the other hand, you were to do the same with the UKOU's student support system, you would almost certainly find that it would not work at all or, at best, only in a very limited capacity. What you would need to take away is the principles behind that system and translate them into the context of your own country. Only by this means would you achieve success.