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MDE-411: Growth and Philosophy of Distance Education

(New Course in place of ES-311: Growth and Philosophy of Distance Education)

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June, 2012

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ISBN-978-81-266-6098-8

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Further information about the Indira Gandhi National Open University Courses may be obtained from the University office at Maidan Garhi, New Delhi-110 068.

Published by **Prof. Basanti Pradhan**, Director, Staff Training and Research Institute of Distance Education (STRIDE), IGNOU, New Delhi on behalf of the Indira Gandhi National Open University, New Delhi.

Cover design by M/s. Graphic Point, New Delhi.

Laser typeset by Mctronics Printographics, 27/3, Ward No. 1, Opp. Mother Dairy Booth, Mehrauli, New Delhi-30.

Printed by :

MDE-411 GROWTH AND PHILOSOPHY OF DISTANCE EDUCATION

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-

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 dents Support Services
 - Unit 9 : The Problem of Creating a Discipline of Distance
 Education
 - Unit 10 : Is Distance Education a Discipline
-

INTRODUCTION TO THE BLOCK

It is generally excepted that open and distance education is a fertile land for innovations, experimentation and creativity. Infact, if we look at the phenomenon of distance education in its world wide setting today, we cannot but appreciate the bold experimentation, the striking developments and purposeful changes which this system of education has initiated and sustained. As students of distance education you need to be familiar with both the diversity and the innovativeness which have characterised distance education all along its growth. This is only possible when we adopt the required a flexible mindset, accessible over knowledge to the people and places and longing for educational equity or the important milestone of success for distance education.

Having gone through the four blocks of this course, now you have a reasonable understanding of the basic issues and concerns, the philosophical foundations and the global status of distance education today. In this context it is important that each country based on the context, purpose, objectives must generalise concepts and evolve a theoretical explanation. Such practices are desirable rather than blindly following theories from the other world. "Hence, it is strongly felt that each country should evolve a theory of its own, based on its practices, experiences and reflections. It is always desirable to have a theory or a model to explain the issues and implications in one's own context of open and distance education. Indigenous understanding of open and distance education will have greater reflective and constructive effect in the teaching learning and practices of open and distance education.

To reinforce this understanding, we bring to you a few instances of the innovations and experiments which distance education institutions established in different cultural settings. Of course, the successes and the failures of these innovations and experiments are of equal importance for the future practice of distance education. While the success stories will inspire the pioneers in many developing countries to promote the innovative practices of distance education in specific socio-cultural settings, the failures should caution the institutional leaders of the perils of blind copying of success models for whatever reasons.

The purpose of this block is to emphasise the fact that distance education has *all along* promoted experimentation and innovation to make education socially relevant. The innovations brought during the first half of this decade pertain essentially to new technologies, such as the use of video class, satellite transmissions, computer-conferences, super-highways, various types of networking etc. It is already proved that effectiveness and usability of these technologies in terms of their economic viability and massive access to the places and people. However, the technology gap should not deter the developing countries from evolving their own relevant models as Latin America has already shown. The future distance education will have a paradigm shift within the distance education which leads to online learning with blended technologies. The blended technologies can be compared particularly in developing countries context that bullock cart and aircraft are going together is a right analogy.

Mail Us

Please note that we have provided a questionnaire at the end of this block. After having gone through the course, complete the questionnaire and mail it to:

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Your feedback pertaining to this block will be very useful for maintenance and revision of this block. Wish you best of luck.





UNIT 1 GUIDED DIDACTIC CONVERSATION IN DISTANCE EDUCATION

Borje Holmberg (1983)*

Editor's note: Holmberg has been very influential in the development of distance education. In particular, his concept of 'guided didactic conversation' has caught the imagination of distance educators, as encapsulating what we aim for in our texts. Holmberg's background is in correspondence education, as director of the Swedish Hermods (see units 2 and 3). This background perhaps becomes evident when one asks what role the media have in Holmberg's scheme of things. It is also evident that he comes of a highly academic and text-based tradition. It is difficult sometimes to follow his Latinate prose. But we should ask ourselves why so much importance is attached to Holmberg's ideas. Are the ideas still relevant today? Towards the end of the article, Holmberg puts forward four hypotheses and goes on to describe how they were tested, somewhat inconclusively. Would his hypotheses be valid in your own situation, Why?

Education is based on communication between *educans* and *educandus* [the educator and the person to be educated] and, in most cases, on peer-group interaction. This communication can take the form of conversation face to face. It is my contention that even when such real conversations cannot take place, it is the spirit and the atmosphere of conversation that should and largely do characterise educational endeavours.

Thinking aloud is a frequently occurring form of text elaboration which has been studied in different contexts. Elaborative processing of text, i.e. the interaction of the text content with the prior knowledge of the reader, has, in fact, proved conducive to retention. Whereas a student who does very little elaborating does not secure the new learning matter sufficiently, those who do a lot of broad elaborating seem to risk difficulties in retracing the text information in the multitude of connections they have established. Thus moderate use of text elaboration seems profitable.

Text elaboration has something of a conversational character also when it does not literally mean thinking aloud. C.P. Lewis, who rejects any contrasting of 'conversational activity with more solitary activities such as private reasoning and silent reading', which he characterises as 'internalised conversations'.

'As we mull things over quietly and in solitude, we are actually holding a conversation with ourselves' (Lewis, 1975, p.69).

If we accept that this elaborative text processing and 'internalised conversation' represent a useful learning strategy, it is logical to draw conclusions from this to a teaching strategy. In its simplest form, this would imply causing students to apply an appropriate extent of text elaboration to their learning. This leads to what I have called a style of guided didactic conversation likely to influence students' attitudes and

* This article is taken from Sewart, D, Keegan, D and Holmberg, B (1983) *Distance education, international perspectives*, Croom Helm, London. Reproduced by permission. Some specialist references have been omitted.

achievements favourably. The more a student is dependent on guidance, support and encouragement, the likelier is the favourable influence of the guided didactic conversation. It is the author's contention, however, that most learners, also among the most mature and autonomous students, benefit from teaching presentations based on the style of guided didactic conversation and thus are conducive to appropriate text elaboration.

The gist of the concept of guided didactic conversation in distance education

Distance education can – and to some extent does – provide an application of this thinking. My theory implies that the character of good distance education resembles that of a guided conversation aiming at learning and that the presence of the typical traits of such a conversation facilitates learning. The distance study course and the non-contiguous communication typical of distance education are seen as the instruments of a conversation like interaction between the student on the one hand and the tutor counsellor of the supporting organisation administering the study on the other. There is constant interaction (conversation) between the students and the supporting organisation (authors, tutors, counsellors), simulated through the students' interaction with the pre-produced courses and real through the written and/or telephone interaction with their tutors and counsellors.

I first introduced my view of distance education as a form of guided didactic conversation in 1960. Since then the conversation concept has become important in other considerations of education. A remarkable contribution has been offered by Gordon Pask in his interpretations of learning under controlled conditions (Pask 1976, Entwistle 1978). Other applications of the concept of conversation are, for instance, found in Lewis (1975), Moran and Croker (1982), Thomas and Harri-Augstein (1977). The last-mentioned authors state:

“Effective internalization of the complete learning conversation produces the self-organised learner and the fully functioning man or woman. Such people learn from experience and continue to learn from life. Frozen internal conversations disable us as learners, and it is only when the external conversation is re-established that the frozen process can be revived. Living then becomes an ongoing opportunity for learning.”

Although these approaches have some similarities with mine, they serve other purposes.

The basis

My approach is originally based on seven postulates. They are:

- 1) that feelings of personal relation between the teaching and learning parties;
- 2) that such feelings can be fostered by well-developed self-instructional material and two-way communication at a distance;
- 3) that intellectual pleasure and study motivation are favourable to the attainment of study goals and the use of proper study processes and methods;
- 4) that the atmosphere, language and conventions of friendly conversation favour feelings of personal relation according to postulate 1;

- 5) that messages given and received in conversational forms are comparatively easily understood and remembered;
- 6) that the conversation concept can be successfully translated for use by the media available to distance education; and
- 7) that planning and guiding the work, whether provided by the teaching organisation or the student, are necessary for organised study, which is characterised by explicit or implicit goal conceptions.

Whereas postulates 1, 3, 4 and 7 are of a somewhat axiomatic character in agreement with generally accepted beliefs, numbers 2 and 6 are supported by a wealth of more or less systematized observations made by practitioners. Postulate 5 has to some extent been empirically validated.

A basic general assumption is that real learning is primarily an individual activity and is attained only through an internalizing process. This is, in my view, to be regarded as a background theory on which distance education is based. It leads us to a study of how this individual learning can be supported and facilitated.

As indicated in the postulates, both the presentation of learning matter in a printed or otherwise pre-produced course and the two-way communication brought about by assignments (or otherwise) serve the purposes of didactic conversation. Whereas the former can pave the way for profitable interaction with the study material and thus represents a kind of simulated communication, the communication between student and tutor or counsellor in writing, on the telephone or by other means represents real communication. The two together constitute the kind of didactic conversation possible in distance education. It is the simulated communication that is above all studied in this presentation of the guided didactic conversation of distance education.

On real, non-contiguous two-way communication see Baath (1980), Holmberg (1981 a) unit 7, and Holmberg (1981 b).

So called self-checking exercises, review questions with model answers, inserted questions and similar components often stand out as important elements of simulated communication. They are not always necessary, however useful they are in many contexts. If a problem-learning approach is applied in the sense that the whole learning is based not on what we now know but on the problems asked by scholars of earlier times and by any serious student, then the discussion of how to put the questions, what paths to go and what procedures to use to come to a conclusion may include the conversational elements. (Cf. Weingartz 1980 and 1981).

The characteristics of guided didactic conversation may be said to be:

- Easily accessible presentations of study matter, clear, somewhat colloquial
- language, in writing easily readable moderate density information.
- Explicit advice and suggestions to the students as to what to do and what to avoid, what to pay particular attention to and consider, with reasons provided.
- Invitations to an exchange of views, to questions, to judgments of what is to be accepted and what is to be rejected.
- Attempts to involve the student emotionally so that he or she takes a personal interest in the subject and its problems.

- Personal style including the use of the personal and possessive pronouns.
- Demarcation of changes of themes through explicit statement, typographical means or, in recorded, spoken communication, through a change of speakers, e.g. male followed by female, or through pauses. (This is characteristic of the guidance rather than of the conversation).

This can – and should – be seen as an attempt to describe essential traits of good distance education and thus represent an understanding of its basic character. However, it is also a prescriptive theory in that it suggests procedures effective in facilitating learning.

The theory

A course presentation following the principles of guided didactic conversation in the sense described is assumed to be attractive to students, support study motivation and facilitate learning. This is expected to apply to most learners at all levels, but particularly to those with little or modest experience of study and limited independence. As exceptions are foreseen (a minority of students are expected to be indifferent or, in extreme cases, even negative to the style of guided didactic conversation) this is not a nomological theory [i.e., relating to laws of the mind].

If, as is usually assumed, children and adolescents rely more on guidance and a style of presentation adapted to estimated learning difficulties than mature adults, then the didactic conversation must be expected to appeal less to and be less effective with a target group consisting of mature adults than one consisting of less mature young people. Further, learning at an elementary stage is usually assumed to need more personal approaches and references to knowledge already acquired than highly advanced study. The didactic conversation would thus seem to suit elementary learning better than advanced study. It would also seem to suit the presentation of new learning matter where the learner is aware that he or she is investigated by a questionnaire study covering new ground and thus needs personal guidance rather than presentations of learning matter that the student has already worked with on earlier occasions.

With these reservations I assume that if a distance study course consistently represents a communication process felt to have the character of a conversation, then the students will be more motivated and more successful than if the course studied has an impersonal textbook character. This also concerns the use of assignments for submission: if used as a means to stimulate and facilitate conversation-type communication they are assumed to contribute considerably more to motivation and success than if used as a means to examine and evaluate students.

My main formal hypotheses based on the general postulates and the assumptions about what constitutes guided didactic conversation can therefore be summarised as follows:

- The stronger the characteristics of guided didactic conversation, the stronger the students' feelings of personal relationship between them and the supporting organisation.
- The stronger the students feelings that the supporting organisation is interested in making the study matter personally relevant to them, the greater their personal involvement.

- The stronger the students' feelings of personal relations to the supporting organisation and of being personally involved with the study matter, the stronger the motivation and the more effective the learning.
- The more independent and scholarly experienced the students, the less relevant the characteristics of guided didactic conversation.

Testing the theory

It would be tempting to try to test the influence of each of the characteristics of the guided didactic conversation as listed above. However, it does not seem possible to explore if each of them separately constitutes a sufficient means to bring about a type of communication which creates feelings of personal involvement. The different characteristics evidently overlap too much to make this possible. It is the united influence of the characteristics as a composite characterising quality that is tested.

The validity of theory is tested in a way inspired by Popper, i.e. through falsification rather than verification attempts.

- 1) A unit of a German post-graduate course on educational planning was modified in such a way that the first part was developed according to the principles of guided didactic conversation whereas the second part was retained in the original form, which was in the style of traditional German scholarly writings. The students' attitudes to the two types of presentation were investigated by a questionnaire study (Holmberg and Schuemer 1980).
- 2) A post-graduate distance-study course on 'Essentials of distance education in a British and a German version was written in the style of didactic conversation and was tried out as a training course for distance educators (from a number of different countries). Their opinion about the value, if any, of guided didactic conversation in distance education were collected (Holmberg and Schuemer 1982).
- 3) An English-language course on English grammar for Swedish students reviewing their school knowledge as a preparation for university study of English was re-written in the style of guided didactic conversation. On the basis of a randomised selection, an experimental group of students were given the revised version whereas a control group were given the original version. The attitudes and the attainments of the two groups were analysed and compared (Holmberg, Schuemer and Obermeier 1982).

Results

The empirical investigations gave no conclusive evidence. However, the tendency apparent in all the three studies favours the theory although no consistent, statistically significant corroboration has emerged. The students taking part in the investigation state that they feel personally involved by the conversational presentations, their attitudes are favorable to them and in the third study they do marginally better than the students taking the original course in their assignment attainments.

These results are statistically less supportive of the theory than expected. Nevertheless the tendency of the outcome does support the theory. Statistically it has not been proved wrong (has not been falsified) and is

considered valid as an ad-hoc theory until one with more explanatory power has been developed and tested with more favourable results.

These conclusions are more reasonable on account of the testing procedures used.

To test the applicability of the theory of guided didactic conversation the falsification attempts have caused particular attention to be given to the circumstances (frame factors) which appear to weaken the predictive value of the theory. Students' attitudes to the style of didactic conversation as well as their achievements on studying a handbook presentation were, in consequence, analysed under circumstances as unfavorable as possible to the theory:

- 1) The courses used for the empirical investigations concerned the university stage, where the independence of the form of presentation and of guidance is assumed to be considerably greater than at lower stages.
- 2) The students concerned in the investigations were adults and therefore presumably somewhat independent in their study.
- 3) The course chosen for the first study (limited to 'research on students' attitudes) was an advanced course (on educational planning) mainly studied as a postgraduate course by teachers and others who had acquired a university degree before they enrolled for this course, by students of other universities supplementing their degree programme and by external students with particular interest in the subject.
- 4) The course on which the second study was based was a professional course for distance educators at post-graduate level.
- 5) The third study, which included an analysis of the students' achievements was concerned with a distance-study course meant for and used as a deepening revision of a subject area (English grammar) that at lower levels the students had gone over on several earlier occasions. They could thus be expected to benefit from and be attracted to a survey of a handbook format rather than learn more effectively from and enjoy a conversation-like presentation.

If the theoretical universe of the study is taken to consist of distance study in general, these falsification attempts lead to a deviation from isomorphism between the cases tested and all relevant cases, but in such a way that the validity of the theory is strengthened through the statistical failure of the falsification. This is due to logical certainty that non-disproved applicability of the theory of guided didactic conversation to the cases studied must be interpreted as a clear indication that it applies as much to cases of distance study at more elementary level and with less mature or advanced students as to the cases studied.

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UNIT 2 CHARACTERISTICS OF DISTANCE EDUCATION*

Greville Rumble (1986)

Editor's note: This extract from another major book of the eighties leads us to look in some depth at theories of distance education. Rumble begins by offering us some comments on the work of Michael Moore and his discussion of the concept of distance. He then summarises and explains Desmond Keegan's attempts to define distance education. In doing that, he introduces the ideas of Peters. Rumble thus provides us with a survey of some of the most important works on distance education.

He goes on to put forward three models for describing distance education: systems approach, holistic and transactional. All three deserve careful examination. A model should provide a framework for reflection and action. You may like to consider which model is most appropriate to the distance education that you know best. In particular, are any of the models suitable for describing small scale distance teaching enterprises?

Definitions of distance education

There are a number of problems in attempting to 'define' distance education. Firstly, used in this sense the term 'distance' has different connotations. It is certainly not restricted to the notion of mere geographical distance from the source of teaching: a high proportion of students enrolled in distance education courses live in densely populated urban areas close to the physical location of the institution from which their course materials are mailed. Although, initially, distance methods may have arisen in some countries (e.g. Australia, France during World War II) because of students' difficulties in traveling to conventional institutions, it would be fair to say now that distance in the physical sense is not a major necessary defining feature of this form of education provision.

Perhaps the most fruitful use of the term 'distance' is that proposed by Moore (1983: 157) in the expression 'transactional distance', which defines the nature and degree of separation of teacher and learner in the educational process:

Transactional distance is a function of two variables called 'dialogue' and 'structure'. Dialogue describes the extent to which, in any educational programme, learner and educator are able to respond to each other. This is determined by the content or subject matter which is studied, by the educational philosophy of the educator, by the personalities of educator and learner, and by the environmental factors, the most important of which is the medium of communication. For example, an educational programme in which communication between educator and the independent learner is by radio or television permits no dialogue. A programme by correspondence is more dialogic, yet not to the

* This extract forms Chapter I of Rumble, Greville (1986) *The planning and management of distance education*, Croom Helm, London. Reproduced by permission. The author is the Regional Director, UKOU Regional Centre, Cambridge, UK.

same extent as some in which correspondence or radio or television is supplemented by telephone communication.

Structure is a measure of an educational programme's responsiveness to learners' individual needs. It expresses the extent to which educational objectives, teaching strategies, and evaluation methods are prepared for, or can be adapted to, the objectives, strategies, and evaluation methods of the learner. In a highly structured educational programme, the objectives and the methods to be used are determined for the learner, and are inflexible. In a linear, non-branching programmed text, for example, there is less opportunity for variation, according to the needs of a particular individual, than there is in those correspondence courses which permit a wide range of alternative responses by the tutor to individual student's questions and assignment submissions. In a programme in which there is little structure, and dialogue is easy, interaction between teacher and learner permits very personal and individual learning and teaching.

Using these dimensions, the most distant programme would be one in which there was neither dialogue nor structure – an example would be a wholly self-directed programme of individual reading. At the other end of the continuum, the least distant programme would be one in which there is a high level of dialogue, with little pre-determined structure – for example, an individually tailored tutorial .. programme. Most of what are commonly called distance education programmes fall somewhere between these two extremes – they have a measure of dialogue, as well as being more or less highly structured. This conceptualisation also helps explain how a student learning in a 'face-to-face' environment whose sole educational activity is to go to lectures to take notes, can be at a greater transactional distance than a student on a distance education course who regularly meets, corresponds with, or telephones his tutor.

A second factor to consider in attempting any definition of distance education lies in the great diversity of practices, systems, and projects that are commonly covered by the term. Granted, they all have in common, as the defining element, and in opposition to traditional classroom-based practice, the separation in space and in time of teaching and learning activities, with teaching generally based on a combination of structured learning materials and the use of intermediaries (tutors, counsellors, 'animateurs') to assist learners in their use of these materials. But here the resemblance often ends.

Differences are attributable to a number of factors. Firstly, there has been a fairly rapid evolution of methods and structures, especially in the last few decades, which has contributed to considerable diversity in the field of distance education. This is all the more remarkable when contrasted with the conservatism and stability of conventional education: classrooms and lecture theatres, and what goes on inside them, look much the same anywhere in the world, and have done so for a remarkably long time. The similarities in the situations of members of a rural radio listening circle in West Africa, students enrolled in one of the many Indian University Correspondence Directorates, British Open University students working at home on multi-media courses, and 'On-Line College' students in New York State, are not so easy to spot.

The many forms of distance education as we now know them have evolved from a wide variety of different sources. In some countries a strong tradition of commercial correspondence colleges has survived for a hundred years or more. Postal tuition, combined with weekly or monthly

lessons of printed or cyclostyled course materials, is still a basic model which has often been adopted relatively unchanged by many publicly financed institution. In other countries, most notably in Latin America, radio broadcasting organisations were among the pioneers of distance education, and this is reflected in the structure of many current systems where there is less emphasis on print and individual correspondence tuition, and more on locally organised listening groups with trained 'animateurs'.

The last decade has seen the creation of a number of distance teaching universities throughout the world, many inspired by the success of the British Open University. Many of them use print and broadcast media combined with face-to-face and postal tuition in an integrated manner. These institutions have contributed a great deal to creating a much more positive image for distance education, giving credibility, through the levels of achievement of their graduates to methods which were previously often considered as second-best, if not third-rate.

For many years, at least in some countries (for example, Australia and the United States), institutions teaching conventional students have also accepted a role in the education of external students. Recently, as the competition for students has increased, more and more traditional institutions have developed new and often very flexible distant study programmes. In the last year or two, in the wealthier countries, the new communications possibilities opened by data transmission networks and widespread home ownership of micro and personal computers are beginning to be exploited for educational purposes. It is too early to know yet what the longer term impact of projects such as the California-based 'Electronic University' will be, but there is no doubt that networking and electronic mail technologies have considerable potential for improving the quality and nature of tutorial and student contacts in distance education.

Thus the problem in trying to establish a definition of distance education lies in identifying the common features of enterprises as different from each other as correspondence colleges based on tutorial tuition, radio phonic schools, and university programmes using electronic mail to reach off-campus students.

Perhaps the most comprehensive general definition of distance education is that first proposed by Keegan in 1980 and subsequently modified in 1986. Keegan's definition is based inter alia on an analysis of the definitions proposed by Holmberg (1977), Peters (1973), and Moore (1973). Keegan (1986: 49-50) identifies seven principal characteristics which he regards as being essential for any comprehensive definition:

- the separation of teacher and student
- the influence of an educational organisation
- the use of technical media
- the provision of two-way communication
- the absence of group learning, with students taught largely as individuals (while retaining the possibility of occasional seminars)
- participation in the most industrialised form of education
- the privatisation of learning (in that learning occurs away from the group).

Separation of teacher and student

The separation in space and time of teaching and learning is a basic feature of distance education. It is worth stressing that this separation is not the exclusive prerogative of distance education systems. Some proportion of learning activities in conventional systems takes place apart from the presence of a teacher, increasingly so as one passes up the scale from school to university education, while many distance education systems include elements of face-to-face contact with teachers. What is particular to distance education practice in this respect is that the overall design of a system is premised on this separation, and that therefore the role of the teacher, and the nature of the transactions between teacher and learner, are completely changed

The role of the institution

Distance education needs to be differentiated not only from conventional classroom based education but also from private study at home. People learn a great deal through their own efforts. What distinguishes distance teaching is that there is an institution that is consciously teaching its students.

Use of technical media

The use of 'technical' communications media in an integrated manner to provide the basic teaching elements is the factor which has perhaps most marked the recent growth of distance education. If the mass media can be used successfully as a principal vehicle for teaching, and as a substitute for a classroom teacher, then considerable economies of scale are theoretically possible. In addition, people who are unable to benefit from traditional education because of physical, economic, or social barriers to access, can be reached. Much of the rhetoric surrounding the use of the term 'open' in the distance education context stems from this notion of the relative accessibility to the public at large of print and broadcast media, compared with the relative difficulty of obtaining access to resources for face-to-face teaching. However, it is clear that mere physical access to print and broadcast media does not necessarily imply that they can be used effectively for educational purposes: potential learners need to be capable of studying independently and to know how best to use these media for learning.

This can be problematic, especially for media which have become almost exclusively associated with the provision of entertainment or information

Two-way communication (between individual students and mentors)

The technical means of communication most commonly used in distance education, with the exception of correspondence by post (which can be very slow), telephone (instantaneous, but also asynchronous in the case of answer phones), two-way radio (instantaneous), and electronic mail (both synchronous and asynchronous), are all one-way. One-way communication is a characteristic of educational technology, with which distance education is often confused (Keegan, 1986:44). The dominance of one-way communication in distance education explains why so many distance education systems are felt to be 'information processing' or 'systematic' models which basically treat learning as the processing, storage and retrieval of information, and in which the learner is a 'passive' recipient of educational messages devised by those who produce the materials. Keegan argues that 'it is important that the student in a

distance education system can profit from dialogue with the institution that provides the learning materials', and that 'the student should be able to initiate this dialogue' (1986:44).

Two-way communication between the individual student and his or her mentor (e.g. tutor or counsellor) is thus regarded as an essential component of a distance education system. Students may communicate with their tutors or counsellors in writing, by telephone and two-way radio, or in individual face-to-face meetings. In some instances, these contacts may be public – for example television or radio phone-in programmes which enable students to speak with the teachers responsible for the design of a course (as opposed to local tutors who may not have been associated with its development). Generally, however, they are more private, involving discussions of assignment work that the student is submitting for evaluation or personal difficulties encountered in studying at a distance.

Group learning

Learning in groups is a feature of many distance education systems. In his 1980 definition Keegan argued that 'the possibility of occasional seminars' was a defining characteristic of distance education. At the very minimum, this would imply the organisation of regular face-to-face meetings of students in a particular area, with or without the presence of a tutor, counsellor, or 'animateurs', or occasional longer seminars or workshops (such as the contact programmes run by many of the Indian universities' Correspondence Directorates, or the British Open University's residential summer schools). Subsequently Keegan modified his view. He argues that the presence of a learning group is fundamental to most conventional education whereas distance education does not compel students to join a group: 'most distance education systems treat the student basically as an individual' (Keegan, 1986:45). He holds (ibid:45) that the separation of the learner from the learning group throughout the length of the learning process is a characteristic feature of this form of education which distinguishes it from conventional, oral, group-based education, although he accepts that many distance education systems do make use of group-based learning. This leads him to his summary conclusion that distance education is characterised by 'the quasi-permanent absence of the learning group throughout the length of the learning process so that people are usually taught as individuals' and not in groups, with the possibility of occasional meetings for both didactic and socialisation purposes (ibid: 49). However, new communications technologies are now being used to permit group interactions at a distance, either synchronously via audio and telephone conferencing, or asynchronously through computer conferencing (textual teleconferencing using terminals in students' and tutors' homes linked through the telephone networks to a host computer).

An industrialised form of education

We owe to Peters (1973) the introduction into the definition of distance education of a strong emphasis on the quasi-industrial nature of distance education systems. Peters is right to point out that the mass production and distribution of learning materials, as well as the logistical aspects of administering and coordinating the activities of dispersed populations of students and tutors, involves the application of principles drawn from the industrial sector. The division of labour that revolves around specialised tasks and technologies associated with the development and production of learning materials is a marked feature of some forms of distance

education. The skills of production/operations management are needed to ensure that materials are developed and produced and services delivered on time to students. Explanations of these processes tend to be couched in the language of 'classical management' (based on the ideas of Max Weber, Henri Fayol and Frederick Taylor) which emphasise organisational structures embodying 'rational' working arrangements designed to operate in predictable fashions.

The introduction of such principles into an educational institution can be problematic. It is not always easy to match the relatively creative activities of course development to a rigidly scheduled production system, while many educators, used to a high degree of personal autonomy in their day-to-day work, resent the loss of autonomy that is implicit in such regularised and task differentiated systems. For some the environment proves stressful. This raises problems of interpersonal behaviour both within the productive group and between groups that require a more human-relations approach to management if understanding is to be achieved. Also the 'packaging' of knowledge which the quasi-industrial nature of many aspects of distance education practice implies also raises problems for many educators, most notably for those who believe that the educational process should focus on the personal needs of the student, and that this is something distinct from the training approach implicit in packaging.

Certainly there are those (Willen, 1981: 244-5 and Baath 1981: 213) who challenge the belief that industrialisation is an essential feature of distance education (the latter arguing that some small systems are not industrialised even if larger ones are). Keegan himself argues that there are industrialised features, even in small-scale distance education systems (Keegan, 1986: 47). However, he no longer insists that this is an essential defining feature of distance education (ibid: 48).

Privatisation

Keegan's last defining characteristic, which is really connected with the fifth, is the essential 'privatisation' of the learning process which he identifies as being present in distance education, by which he means that 'a distance system takes , the student from the learning group and places him/her in a more private situation' (Keegan, J 1986: 49). Distance education, he says, is 'characterised by the privatisation of institutional learning' (ibid.: 49).

Models of distance education

A number of attempts have been made to integrate the defining characteristics of distance education (such as those presented by Keegan and discussed above) into models or theories of distance education. The rest of this chapter introduces three of these - the first a systems model of distance education, the second a holistic model of distance education, and the third a transactional model of distance education.

A systems model of distance education

The systems model is the one proposed by Kaye and Rumble (1981: 19-22), based on the concepts developed by Miller and Rice (1967) for analysing organisations as open systems which exist by exchanging materials with their environment. The activities carried out by an organisation are divided by Miller and Rice into three categories:

Operating activities: the specific import, conversion, and export processes which define the particular nature and role of the enterprise.

Logistical activities, which ensure the supply of necessary resources for the proper functioning of the enterprise (recruitment, training, purchasing, etc.).

Regulatory activities, which ensure the overall coordination and control of all processes within the enterprise, as well as its links with the outside environment.

The operating activities which are characteristic of distance education enterprises can be grouped into two major subsystems (see Figure 4.1), which reflect the separation of teacher and student (or teaching and learning activities) to which reference has already been made.

The 'materials subsystem' covers the design, production, and distribution of mediated

learning materials. Materials development embraces the activities of curriculum planners, teachers, contents experts, instructional designers, media producers and other 'transformers' (e.g. editors, graphic designers) who help in the production of 'media products'. The outputs from their activities are prototype materials which, through the materials production process, are turned into finished products, in single or multiple copies, in print, audiovisual, and/or computer software form. These materials can then be 'packaged' together as a course and are then distributed to all the students and tutors involved in the course, through mailing, broadcasting, or data transmission facilities.

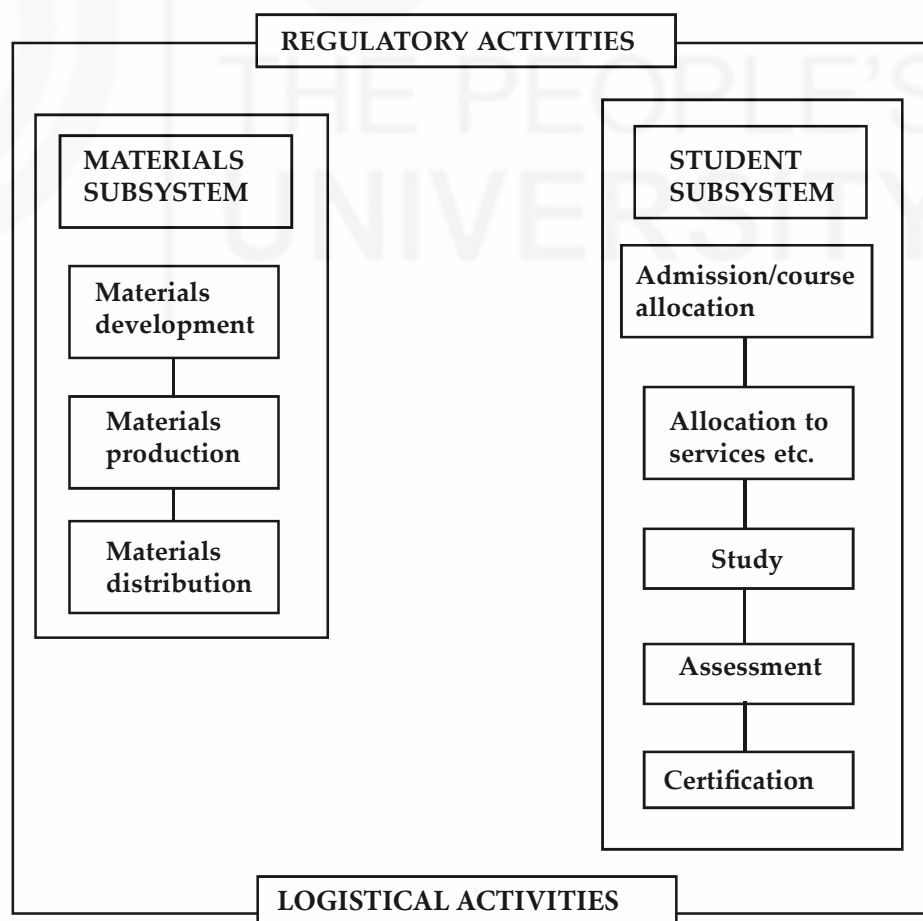


Fig. 4.1: A systems model of distance education showing the materials and student sub-systems

The student subsystem is separate in system terms from the materials subsystem, involving different activities, personnel and resources, all of which are basically concerned with facilitating the students' learning activities and managing their progress through the institution. It admits students to the institution, allocates them to courses, local centres and tutors and counsellors, collects fees, ensures that they receive course materials, assesses their progress, issues certificates, and maintains their records. The point of contact between the two subsystems occurs when the student receives the learning materials and starts to use them.

The value of this simple systems model is that it clearly identifies the principal activities involved in running a distance education enterprise, as well as the interrelationships that exist between them. It underlines the importance of the quasi-industrial process that characterises the production and distribution of materials, and lays stress on the specialisation of tasks and division of labour. It defines the difference between an educational publishing organisation (which would only require a materials subsystem) and a distance education institution (which must also provide an appropriate student subsystem). It also helps pinpoint the activities which are independent of student numbers (e.g. course development) and which are therefore susceptible to economies of scale, and is hence a useful starting point for financial modeling. Finally, it underlines the fact that, theoretically and in practice, different groups and organisations can collaborate in providing a distance education system, each perhaps taking on responsibility for different activities, or clusters of activities, within each subsystem.

A holistic model of distance education

In contrast to the rather technocratic model presented above, which is adequate in its way for helping to understand the activities which define a distance education system, a more global theoretical structure has been developed by Perraton (1981:22-4) which effectively displays the argument in favour of distance education. It is summarised below and in Figure 4.2 as a linked sequence of fourteen elements, most of which have already been mentioned in this chapter, the summary is of great value in that it takes these various elements and brings them together in a logical manner, thus providing a useful synthesis of cost, access and educational arguments favoring distance education. The summary below is to be read in conjunction with Figure 4.2.

Educational media are similar in their effectiveness, but differ in the ways they can readily be distributed (box A). This makes it possible to move away from the fixed staffing ratios necessary to face-to-face study (box B), thereby changing the role of the teacher (box C) and making possible a reduction in costs (box D). It is then possible to reach audiences different from the traditional ones, through distance teaching, and to do so at a reasonable cost (box E). The equivalence of the media however, presents us with problems of choice (box F), best resolved by a multi-media approach (boxes G and H) which allows for feedback (box I) and encourages active learning (box J). In working out the approach to be used, the organisation of any face-to-face element is of key importance (box K) and leads us to consider how to use distance teaching to ensure dialogue (box N) something which is facilitated if a concern with new audience and a new relation between education and the community (box L) lead to the use of groups as a basis for adult learning (box M).

Perraton's argument starts with the hypothesis that different media are similar in their effectiveness for teaching; this is based on the results

of comparative studies of the use of print, radio, film, television, and live teachers, as reported, for example, by Schramm (1977). Many such comparative studies have been carried out. The general conclusions from them are that it is factors such as the pedagogical quality and clarity of presentation, the relevance of the content, and the motivation and interest of the learners, which are the

significant variables, rather than the particular medium of instruction. The next elements in the argument presented in Figure 4.2 follow on logically from this initial premise: the face-to-face teacher's or tutor's role becomes that of a facilitator of learning rather than a transmitter of information, and the group becomes a key forum for debate, discussion, and feedback. In fact, Perraton concludes by suggesting that in taking decisions over choice of media, the specific functions to be allocated to group activity should be considered first, within the overall cost constraints applying in particular cases. Use of the various media can then be decided subsequently, in light of the extent and nature of face-to-face and group contact. This conclusion stems from the community - or society - centered orientation of Perraton's work, which contrasts with the institution-centred approach, found in many distance education systems.

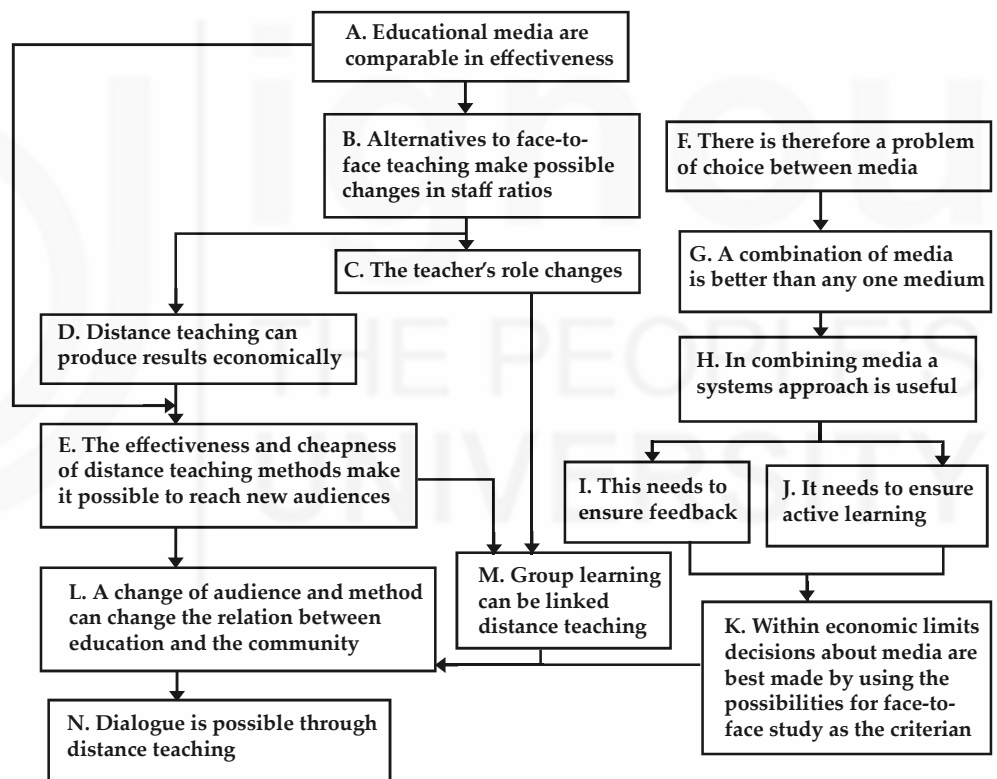


Fig. 4.2: A holistic model of distance education

Although much of Perraton's work is concerned with the use of distance methods for expanding education as economically as possible in developing countries, notably in Africa, and often for teacher training and for rural and community work, his conclusions are just as important for the provision of education for adults in the more developed countries. In fact, there are many lessons to be learned from the wealth of experience gained in this field by a number of African and Latin American countries, particularly in the combined use of local community groups, radio broadcasting, and print materials (see, for example, Perraton, 1980, on the use of distance methods for community education). The importance of Perraton's holistic model is that it provides a convincing argument for the

adoption of distance education as part of a general national educational policy.

A transactional model of distance education

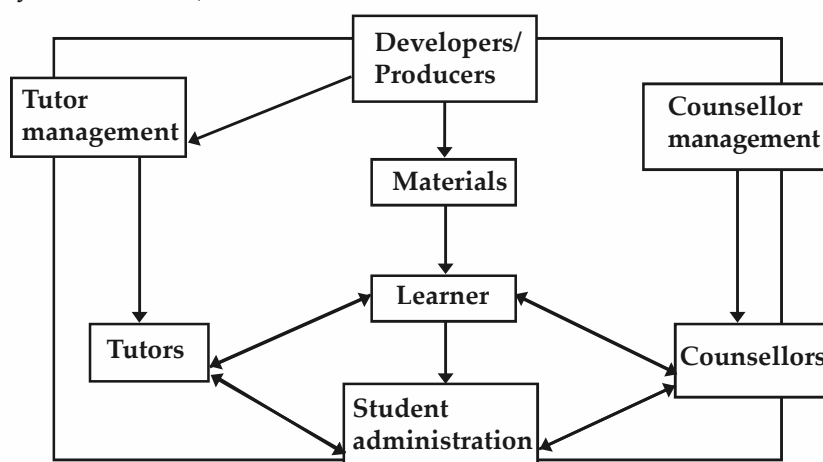
A rather different perspective is obtained by viewing distance education from the sometimes competing perspectives of the principal 'actors' involved in the process, and the relationships on transactions between them (see Figure 4.3).

In traditional education, the vast majority of the learner's transactions are with individual teachers who, in addition to actual teaching and assessing, may give personal advice on course choice, help with administrative problems, and generally monitor the learner's progress. These 'transactions' - whether with teachers or with others-usually take place within the physical boundaries of the institution.

In distance education, however, the situation is quite different. Learners have three principal types of transaction to maintain, and each of these has a different site within the system:

'transactions' with the learning materials reading, viewing, listening, manipulating, selecting, interpreting, synthesising, and so on; the locus of these interactions is generally the student's home, but may be a local centre.

Transactions with 'intermediaries' such as tutors, counsellors and 'animateurs', who are there to help in interpreting and using the course materials, and to promote group discussion and interactions with other learners; the locus of these transactions varies: local study centres or occasional residential sessions for group work, the home or place of work for exchanges by post, telephone, or other communications channels transactions within the institution - or at least that part of it set up to provide student services and to deal with administrative and general queries and problems. These are of necessity often impersonal, having to be carried out at a distance, and may be perceived by learners as problematic (the 'unfeeling bureaucracy of the faceless institution, etc). However, the institution may at times deal with students on an individual basis through personal counselling services and the 'faceless' bureaucracy may be humanised to the extent that such services are available (Henri and Kaye, 1985:124-5).



Note: This model assumes a certain kind of distance education system similar to that of the British Open University. Other models will have different transactional patterns.

Fig. 4.3: A transactional model of distance education

Beyond this circle of transactions, in which the learner participates, is a complex set of invisible (to the student) activities and interactions which are necessary for providing, coordinating and maintaining learning resources, the network of intermediaries, and student services. These activities were outlined above in our presentation of the course and student subsystems (see Figure 4.1). The principal agents responsible for these activities include:

- educators and subject-matter experts responsible for selecting, organising, and developing content and curriculum of a particular course;
- 'transformers' of various kinds, who work with the subject-matter experts in developing and producing the specific media products which make up the learning resources. These include editors, graphic designers, media producers, educational technologists, and computer software programmers;
- managers responsible for planning, the formulation of policy, organisation and staffing, coordination and control; and
- evaluators concerned with monitoring the functioning of the system, providing and analysing information for decision-making, and recommending necessary corrective actions. In some cases these will be specific individuals based in an evaluation or management information unit; in others evaluation may be done by managers and educators as a normal part of their work.

Viewing distance education systems in transactional terms emphasises the human relations aspects of management, contrast to the systems approach of Kaye and Rumble which tends to stress the 'rational' aspects of management.

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UNIT 3 DISTANCE EDUCATION IN THE THIRD WORLD: CRITICAL ANALYSIS ON THE PROMISE AND REALITY*

Geoff Arger

Editor's note: Geoff Arger from the Department of External Studies at Australia's University of New England brings critical reflection to bear on what distance education is actually achieving for developing countries, in this abbreviated version of a longer article. He provides a definition of critical reflection and from an analysis of ICDE publications argues that the promise of mass opportunity, national development and high quality education is not being delivered. He goes on to examine three systems in greater detail: Papua New Guinea, Malaysia and Thailand.

It is clear from the literature that distance education promises to assist national development, particularly in the Third World. It started in the late 19th century with correspondence education promising to provide cheap egalitarian, mass education of good quality. The 20th century promise of distance education was revived in the 1950s in Latin America where radio technology had a high profile, in Africa in the 1960s and in South East Asia in the 1970s, because western style conventional education was increasingly perceived to have failed to impact on Third World development. This promise continues on a world-wide basis in the eighties. For this promise to become a reality, however, it is necessary for the rhetoric to reflect action and for theory to relate to practice. Is this in fact the case in the Third World?

It is argued below that by applying a critical analysis to the promise and reality, and the theory of distance education as manifest in the International Council of Distance Education (ICDE) literature since 1985, and also through a critical analysis of the theory and practice of distance education in three developing countries that the author has worked in during this period, the answer is a qualified no.

A critical analysis of the literature in the ICDE Bulletin from 1985 and the papers of the 14th ICDE World Conference in August 1988, reveals that distance education promises to assist Third World development. Assisted by modern technology, it is a vehicle for large scale quality education. This education promises to bring about social equality in a cost effective manner¹. Further analysis of the same body of literature suggests that there is a wide difference between this promise and the reality.

A difference is also seen between theory and practice in such diverse nations as Papua New Guinea, Thailand and Malaysia, where the author has worked during the last four years. This work was in such diverse distance educational institutions as the Extension Studies Department of the University of Papua New Guinea, Sukhothai Thammathirat Open University in Thailand and DISTED in Malaysia.

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The promise and the theory in all cases tend to be the same, but the reality and practice in each is variably different.

Methodology

The author has deliberately chosen to analyse ICDE literature critically because as Evans and Nation² argue:

As the name suggests, the ICDE is a world-wide organisation and it has offered an excellent basis for the exchange of ideas in the field. It has fostered the dissemination of knowledge based upon practice, the fruits of research, and discussion of concepts and theories. Its thrice yearly Bulletin and its periodic world conferences play a vital role in this regard. The ICDE has provided an international forum in which distance educators, who may feel marginalised in the local or national scene can remind themselves that they are part of an educational endeavour that has world-wide significance.

The analysis in the first section has been restricted to the period since 1985 to avoid the easy criticism that any conclusions are based on 'out of date evidence'. Likewise to avoid the potential reaction to a critical analysis of the literature that the author is a researcher without first hand experience, in the second section the author is critically reflective about the practice of distance education in the Third World countries he has worked in recently. The author's long experience in distance education in Papua New Guinea in the seventies, and in Saudia Arabia in the sixties will no doubt influence this reflection, but it is only the more recent experience since 1985 which will be the subject of the critical reflection in this article.

Inevitably such reflection is controversial. Harris,⁴ adopts such an approach in his book, *Openness and Closure in Distance Education*. Hence it is necessary to state briefly what the present author means by 'critical analysis and reflection'.

The author fully agrees with the comments made by Evans and Nations, that 'critical reflection is the process through which human beings use their analytical powers to assess the elements of their lives against their explanatory frameworks (theories), and judge practice against theory. Critical reflection is a precursor to change'. Critical analysis is achieved by applying this approach to the work of others.

It needs to be stressed that this author believes strongly that the most important element of critical reflection is that the persons involved believe in the 'fundamental equality of the participants'. Critical reflection and analysis has its roots in critical theory as expounded by Evans and Nation.

Distance education has come of age and it can, and perhaps needs, to bear critique of this nature.

The promise of the rhetoric

An analysis of the ICDE Bulletins between 1985 and 1988 and the ICDE 14th World Conference Papers suggests that a great attraction of distance education is that it promises in a general sense to assist national development. Distance education promises to meet the needs of the national economy, (Daniel,⁶ Foks,⁷ Shah⁸) Gitau⁹ notes that the School of Distance Studies in Kenya used distance education because it promised to foster a sense of nationhood and promote national unity.

Such promise is often interwoven with the use of educational technology to reach the masses, as Shah¹⁰ explains. He sees distance education television 'reaching out to the masses in the dark ghettos of illiteracy, ignorance, disease, poverty and exploitation'. Others express similar sentiments, albeit more moderately (see, for example, Singh¹¹).

(It is noticeable that there is little critique of or reflection on the role of formal education in national development. There is little acknowledgement that formal education particularly at the tertiary level may not assist development that is relevant to the majority of the people in the Third World. Nor is there any exposition of the role that education can play in development which is demand driven, vocationally oriented and therefore relevant to the needs of that particular society. Distance education's promise, as reflected by ICDE literature, is largely at the tertiary level and within a modernisation paradigm of development.)

Quantity

The promise is also expressed in more specific terms. Much of the attraction of distance education's promise to aid mass education is that it can be applied not only to universal primary education and adult literacy campaigns, but to teacher upgrading. (Daniel)¹². This application promises an exponential impact on increasing educational opportunities because upgrading teachers' education levels increases students' education levels dramatically. Furthermore distance education does not incur high opportunity costs because the teachers remain in the workforce. This also has the added advantage of allowing educational technology to be used easily because it can be directed into schools. In Armengol's¹³ words, distance education promises the 'phenomena of accelerated massification'.

Linked with this is the promise that distance education can democratise education.

Quality

Associated with the above promises is ICDE itself. The growth of professional bodies such as ICDE is an indication that distance education aspires to offer quality education. Through its world conferences and thrice yearly Bulletins, ICDE helps to maintain a high quality of distance education teaching methods and material as well as an understanding of the need for systematic management. It is worthy of note that the high-profile new Indira Gandhi National Open University has a special emphasis on the quality of its material (Singh)¹⁴ and its motto is 'Nothing But The Best'. Indeed the use of distance education to achieve high standards promises to have a spin-off impact by improving conventional education. (Daniel)¹⁵.

Cost effectiveness

Underpinning the promise above is the understandably great attraction in the Third World that distance education compared to conventional education is cost effective. It is seen to have low recurrent costs with the potential to go even lower by the judicious use of educational technology, (Shah)¹⁶.

Linked with this attraction is the further promise that distance education can be cheaper to implement because it will attract foreign aid funding. Donor agencies such as UNESCO, USAID and the World Bank were visibly present at the 14th ICDE Conference. This conference hosted a

high profile meeting between ICDE and UNESCO to discuss a closer relationship which would be, in the words of the ICDE President, 'particularly useful for developing countries', (Sewart)¹⁷. Related to this promise is the specific promise of the newly established Commonwealth of Learning which in the words of a former ICDE President, 'will operate at the wholesale level helping countries with their development priorities rather than at the retail level of dealing with individuals itself' (Daniel)¹⁸.

The promise

The promise of distance education as expressed between 1985-1988 continues to be its ability to influence national development by offering mass, quality and cost effective, education which could effect social change. A great and attractive promise indeed! Such rhetoric, however, evokes questions such as, 'Is this promise valid? Is it based on empirical evidence?', (Arger)¹⁹. "To answer these questions it is necessary to analyse critically the same body.

The reality of the action

National development

It is worth starting with Gitau's²⁰ comment that it has become increasingly clear that a high ratio of economic development in a country cannot be guaranteed by skilled manpower. Yet this is a central premise of distance education's promise to influence national development.

The difficulties of study in the distance education mode for Third World students also must not be ignored. The spatial gap and time lag between teacher and student, as well as the isolation of students from their peers, observed by Gitau²¹ can in some Third World countries be enormous because of transportation and communications difficulties. Such communications difficulties can also increase the perennial problem of teaching material not being as painstakingly prepared as it should be. Contact between student and the institution in the Third World is often extremely difficult.

It is not surprising then that Daniel²² notes that in Africa there is a great gap between need and supply, and questions distance education's promise of assisting national development. It is also worth asking whether distance education is contributing to national development when it positively discriminates in favour of one group against another.

Quantity

These are important considerations because the promised ability of distance education to produce large quantities of educational manpower is dependent on certain prerequisites. These were noted in the sixties (Edstrom)²³ as being good mass communications systems, a good home environment, language fluency, skilled course writers, printing capabilities and recognition of distance learning as legitimate. The above comments throw doubt on the ready availability of some of these. Kiyenze²⁴ throws doubt on others when he notes the lack of printing capacity, that printing machines cannot be maintained and indeed, that paper can be too expensive. Further he points out that distance education techniques are not diversified. These factors also affect the quality of the teaching material.

Both quality and quantity are also affected by the Third World operating conditions. Mullick²⁵ perhaps most succinctly puts it when he notes

distance institutions have 'neither the infrastructure nor trained personnel for using word processing, radio, television, audio tapes, micro-computers, satellites, audioteleconferencing nor telephone computer based education'. This perhaps explains criticisms that radio and television are used to a very limited extent. Gillard and Williams²⁶ for example, believe that only 5 per cent of students use the well touted USP satellite: 'Yet the university with US assistance placed a lot of stress on the satellite as a potential learning mode.

These comments cannot be dismissed as atypical. They may not all appear in all Third World countries but they are characteristic of the Third World (Daniel)²⁷ and are of the magnitude that they need to be taken seriously.

The promise that distance education can democratise education is also questioned when the rhetoric is subjected to a critical analysis. In parts of Africa the ratio of men to women in the national correspondence schools is 6:1 (Muro)²⁸. Here it may be timely to make the point that Africa is not being selected out, nor is it a case that distance education is less effective there than in other parts of the Third World. Indeed, it may well be the opposite and the frequency of Africa in this critique may be because they are more critically reflective about their practice than others in the Third World. The point is that distance education does not seem to be meeting women's expectations nor is it equalising opportunities in many Third World nations, (Mullick)²⁹.

Quality

One promise expressed in the rhetoric is that distance education could offer quality education. Yet a critical analysis reveals that distance education assumes that in order to be successful, certain student predispositions such as a fairly high level of reading ability, high motivation to read and capacity to organise independent study projects must be present. Yet it is known that many students lack a proper development of these characteristics. So if the basic premise of the promise of quality distance education is questionable, does it produce quality education in spite of this?

Unfortunately, the answer also appears to be under some doubt. Problems still continue to be expressed about the quality of the print material, (Muro,³⁰ McCormick³¹). Caution must be urged regarding dropout and wastage figures particularly as some high profile Third World universities do not withdraw non-active students. Indeed, comparing student retention figures in the Third World is extremely difficult as there are no standards. Nevertheless, figures such as 15-25 per cent dropout rates give rise to questions about the quality of distance education. Attrition rates in excess of 40 per cent per semester make a mockery of distance education being cost effective.

Cost effectiveness

In terms of the general cost effectiveness of distance education, Rumble's words are worth repeating, for it is clear that many Third World countries have financial problems. Rumble³² writes:

"It is said, particularly by distance educators, that distance education is cheaper than traditional forms of education. Cost comparisons between distance and traditional educational systems are often difficult to make because the systems may have different objectives or teach different subjects, or the same subjects

in very different ways: the previous educational qualifications of the students entering the system may be different and this may affect their success in producing graduates and the quality of the teaching may be different.”

This is different from the promise of distance education being cheaper. Rumble has consulted and written widely on the planning, management and costs of distance education and he is saying it is difficult to compare these costs with costs of conventional education.

The financing of distance education is often linked to foreign aid. At the 1988 ICDE Conference, Foks³³ commented perceptively:

‘I have attended a number of conferences including, I regret to say, those organised by ICDE, where delegates from well-to-do organisations in well-to-do countries deliver to their less well off colleagues gratuitous advice on how to solve their educational problems especially those of access by students: by the use of expensive and sophisticated technologies which rely upon expensive and sophisticated technology infrastructures, in particular those associated with telecommunications’.

The situation is more complex than that because often our colleagues in less well-off countries are asking for advice and assistance. How we, and ICDE, respond is another matter. Nevertheless, this raises a very important question which would benefit from critical reflection on both sides of the equation.

Let me conclude this section by critically commenting on the role the Commonwealth of Learning could play in fulfilling the promise that distance education has for the Third World. In this reflection I owe much to others, particularly John Othwick³⁴ and I fully acknowledge that contribution.

It would be a contradiction of the promise of distance education if the Commonwealth of Learning became merely a vehicle for delivering, conventional university education to an elite body of students. The promise will not be achieved if the Commonwealth network reinforces outdated and outmoded conventional education structures rather than establishing one able to serve regional needs and diverse cultures. Indeed, it would be a negation of the promise of distance education to aid Third World development if the motivation for the institution's being located in Vancouver were no more than the provision of jobs, with private sector spin-offs, for that city.

It is also worth emphasising that donor agencies do not give assistance without conditions, nor will the private sector support educational objectives different from its own. It would be a travesty if the Commonwealth of Learning gave in to the financial and government pressures of the dominant partners and was diverted from providing the Third World with mass quality education cost effectively through distance education. Critics would then see the Commonwealth of Learning as epitomising everything bad about aid.

The reality

A critical analysis of the 14th ICDE Conference and thrice yearly Bulletins suggests that it is highly questionable whether national development is being significantly influenced by distance education. Such an analysis further suggests that distance education is not achieving the goal of improving educational access and equity that it promises either in terms

of quality or quantity.

Reflection of theory and Practice in three countries

It is now necessary to reflect on the theory and-practice of distance education in three very diverse Third World countries. They are countries where the author has been involved since 1985 in the practice of distance education. An analysis of the literature of the institutions included should determine the theoretical promise of the rhetoric. Critical reflection on the practice of distance education and the role that critical reflection plays in the process of distance education should establish the degree of separation between the theory and practice of distance education in each particular situation.

It should be emphasised here that critical reflection on practice can be personal and that my reflection is exactly that. The following is not a definitive critique of distance education in the countries concerned. Nor must it be seen as that. It is given to demonstrate that critical reflection on practice can assist future changes in distance education in Third World countries.

Papua New Guinea

Papua New Guinea has two major institutions offering distance education, the College of External Studies (COES) which offers secondary level courses and the Department of Extension Studies at the University of Papua New Guinea (UPNG).

The theory of what UPNG distance education practice should be is best summed up as follows:

- reach the greatest number of people possible throughout the nation, and give greater meaning to the principle of equal opportunity for people who have not had the 'chance for full-time studies, especially those doing important work in remote areas;
- improve educational standards of professionals without serious loss in work time;
- give reality to the principle of linking education with work – such students are better placed than many full-time students in integrating the two worlds of work and study, their learning is greatly assisted and study is made more relevant;
- give highly motivated workers a chance to acquire more knowledge and skills so that they can attain those positions in which the acquired knowledge and skills can be applied in the service of the nation; and
- cost less per student – the high cost of good quality communication is more than offset by the savings on scholarships, capital cost, and the fact that the student continues to work and is 'productive' (Kaeley)³⁵.

Again the great promise of distance education emerges in the rhetoric. In contrast, the promise of the College of External Studies is: to provide a continuing system of education alternative to that of the formal school system for those who, for one reason or another, have been unable to pursue the latter. (Kaeley)³⁶.

For both of these institutions to fulfil the promise in an island nation of three million people, co-operation is essential.

In practice, in Papua New Guinea the COES has had little impact on the provision of secondary education in the country, contributing only 0.7 per cent of the age group's involvement in the sector (Kaeley)³⁷. Plans to offer Grades 11 and 12 have not been realised because of financial and physical constraints. So SOES is not fulfilling the promise of quantity. With regard to quality, the courses are print-based with very little audio material. The print quality is restricted by limited resources and low numbers of students. There is little spin-off to other courses, indeed they are rigidly based upon school curriculum material. Further, there is no evidence that the courses are cost effective.

Similarly in UPNG the promise of mass education is not realised, with only 420 students enrolled in the pre-degree Matriculation Studies programmes in 1987 and fewer than 200 in the first year degree Arts Foundation Year. Again, limited financial support outside, and within UPNG prevents eligible students from being accepted.

Moreover, Matriculation is offered only through Provincial Distance Education Centres. Unfortunately the number of centres is determined by the willingness of the provincial government to support the centre. This is often dependent on their wealth and priorities and to date there are only five centres in 19 provinces.

The quality of the teaching material is affected by a series of factors. Because of low numbers, media other than print are not seen as viable. The quality of print material is influenced by the rapid turnover of expatriate staff. Such academic staff often do not have sufficient time to gain expertise in writing distance education courses. Even good quality material is rejected by new staff who wishes to teach their 'own' course. Not surprisingly Kaeley, one of the few long-time distance educators at UPNG, noted that external numbers were so low at UPNG that it operates like a handicraft industry rather than a mass production device³⁸.

The reality of distance education in PNG is that co-operation between the two institutions, neither of which is fulfilling its promises is poor. This is well illustrated by the lack of co-operation over study centres although it is acknowledged that their function and funding base is different. Moreover, there is little flow of information between the two institutions although there was joint attendance at a UNESCO workshop in 1986 where such

shortcomings were discussed. There is no dialogue, and no critical reflection on the gap between promise and reality in PNG distance education.

Malaysia

Distance education in Malaysia, a multi-racial nation with large Malay, Chinese and Indian ethnic groups, is dominated by Universiti Sains Malaysia (USM) because of a government directive excluding the other five universities from distance education. The aims of distance education are:

- to help adults who had earlier missed the opportunity for obtaining a higher education, and thus qualify for a degree;
- to narrow the gap of educational opportunities amongst the various ethnic groups in the country;

- to take education to economically deprived and geographically isolated areas; and
- to increase the nation's needs for high level manpower;
- to improve the performance of those already in employment by updating their knowledge and skills. (USM publicity brochure).

Another distance education organisation in Malaysia called DISTED is also worthy of mention. In theory DISTED is to promote education by:

- providing selected basic and advanced degree and diploma programmes based on self instructional techniques, secured through legal linkages.
 - with established and accredited institutions;
 - balancing course/programme variety with national and individual needs;
 - maintaining regional centres or units which will; and
 - liaising between the host institutions and students who seek to complete their programmes through study abroad. (DISTED publicity brochure).
- a) facilitate the organising of small group discussions, workshops, seminars and/or laboratories;
 - b) provide greater educational support and access to services offered by DISTED; and
 - c) create rapport between students and staff of DISTED.

The aim is to cater to the needs of many students who for a number of reasons cannot pursue university education locally or abroad. To achieve this, DISTED has established formal links with a network of accredited universities overseas which have a reputation for delivering respectable distance education programmes. DISTED then serves as a link organisation between institution and student.

Although Universiti Sains Malaysia had a cautious beginning it now has in excess of 5,000 off-campus students. The reality is that only 15 to 20 percent of Malaysia university

Demand is provided for in Malaysia itself. 1.2 billion U.S. dollars are spent on overseas education (Dhanarajan)³⁹. A critic might argue that overseas education is being used for social control. Whatever could be the reason, distance education at USM is clearly not fulfilling its promise of mass education.

Indeed, the USM off-campus system is further restricted by its access and equity policies. The students are primarily urban (65 per cent) with the rural ones being mainly teachers temporarily living there (Dhanarajan et al.)⁴⁰. The system has a three-week-long, compulsory residential school. Students must spend their last year on campus. USM imposes the same academic entry standard as in the full-time courses which are restricted to the top 20 per cent of eligible students. Candidates from the Public Service must be tenured (and there are restrictions on who can and cannot be tenured). In this manner access is restricted to many in public service employment (Dhanarajan)⁴¹.

Whilst there may be some doubts as to whether USM in practice is fulfilling. The promise of distance education in providing mass education, it is certainly helping to raise the standard of teacher education and educational level of government employees, which may have an exponential effect on educational provision.

Moreover, the quality of the printed teaching material is high. It also has the spin-off of producing teaching material in the new national language of Malay Bahasa. This is particularly valuable in the science area and all other Malaysian Universities use this material. The recent use of technology to establish a teleconferencing network which includes Western Malaysia is impressive and in some ways counters the previously limited use of audio and video. Cost considerations for not using these media were based partly on high production costs but also on the experimental nature of USM designated Off-Campus Education which resulted in a restricted internal financial allocation. Moreover, radio broadcast programmes even of a reasonable standard have low credibility with the students because of the general unreliability of the programmes going on air on schedule.

The key issue for reflection, however, in terms of access and equity is whether, given the discrimination in favour of Malays, distance education can ever fulfil its promise of mass, cost effective education in Malaysia.

In some ways an answer has been given by the establishment of DISTED. This private college with English as a teaching language is heavily subscribed to by the Chinese and Indian race students. In some ways it is a reflection on USM's success in demonstrating that quality distance education is possible. DISTED's quality of teaching material is brought in from overseas and the quantity is restricted only by the ability to pay fees. This system may raise the question of curriculum relevance, and the author's personal experience as an Australian tutoring a group of Chinese and Indian students using material written by Canadians on 17th Century English History certainly led to some critical reflection on that issue.

Overall, the experience of distance education in Malaysia suggests that until there is a period of national critical reflection on distance education policies, institutions will continue to follow different directions and thus fail to fulfil the overall theoretical promise of distance education.

Thailand

Sukhothai Thammathirat Open University (STOU) is the major distance education university in Thailand a nation of approximately 52 million. Established in 1978 it has become an exemplary Third World distance education institution.

As an open university, Sukhothai Thammathirat Open University subscribes to the principle of life long education, aims to improve the quality of life of the population, seeks to upgrade the educational and professional qualifications of working people and strives to expand educational opportunities at the tertiary level for those who have completed secondary education and also for the general public. To achieve these aims the University has devised a distance teaching/learning system which employs such educational media as correspondence materials, radio and television programmes, and other methods which enable students to study independently without having to enter a conventional classroom.

Within the general framework of these goals, the University has set itself the following objectives:

- to provide and promote academic and professional education to enable people to upgrade their educational qualifications in response to individual and social needs;
- to promote research for application in national development;
- to provide educational services to society, through the dissemination of knowledge, thereby promoting personal development and professional competence; and
- to promote national art and culture and encourage an awareness of ethical principles on the part of the general public to strengthen its sense of national identity (STOU publicity brochure).

In practice, STOU has done much to provide mass education in Thailand. With figures like 82,000 in its first intake, 150,000 in 1987 and with 200,000 in 1988 an accumulative total of half a million, with 85 per cent from rural areas, it is well on the way to fulfilling the promise of quantity. STOU believes that such an increase in graduates will not cause economic dislocation because the graduates are already employed and therefore the education is relevant.

STOU has also established a worthy reputation of quality print teaching material. Each course has a prescribed number of radio, and a lesser number of television programmes. The reality here is somewhat more complex. The prescription thus led to air-time scheduling. Perhaps more seriously, the effort of producing the 150 radio and 21 television programmes each week has led to a loss of quality in some cases. Some of those I watched were simply talking-heads with little pedagogical rationale.

In a wider sense STOU attrition rates, which seem to increase from 15 per cent to 40 per cent for 2-4 year courses, are cause for reflection. Such figures undercut quantity, quality and cost effectiveness as well as causing pedagogic concern. These rates cannot be blamed on unrealistically high academic standards. because 60 per cent of the final mark is attained in the residential professional session before the exam, and 40 per cent is attained by a multiple choice examination. There are no semester assignments.

These comments must not be seen as being unduly critical of STOU because the institution itself has been critically reflective on these issues. They have, and are, questioning the wisdom and difficulties of prescribing a number of media segments. They acknowledge that they had initially pursued access as a major concern but that now, after a period of critical reflection (and at STOU these are long sessions with the staff), STOU recognises that its highest priority is to increase interaction between staff and students, which will help motivation and cut down attrition. The question of how relevant such education is to national development is not being reflected upon yet.

The theory and practice

Critical reflection reveals that the gap between theory and practice varies from country to country. Perhaps it is at its widest in Papua New Guinea and Malaysia, although a new practice in Malaysia, DISTED, may change that situation. There is little critical reflection on the practice of distance

education in either of these countries. In Thailand there is evidence that the gap between theory and practice, after being wide, is closing as critical reflection is being adopted as part of the practice of distance education. It is noticeable that in the countries which have critical reflection in their distance education practices, the gap between theory and practice is the least. The gap between promise and reality, and theory and practice seems to be determined partly by the level of rhetoric used in expressing the promise and partly by the role that critical reflection plays in the process of distance education.

The need for critical analysis and reflection

What emerges from a critical review of the recent ICDE literature and a critical reflection on the practice of distance education in some of the Third World countries that the author has worked in recently is less the suggestion that distance education's promise of being able to provide a quality, cost, effective education for the masses of the Third World is not a reality. It is argued that the promise will not become a reality because rhetoric frequently does not affect action nor do theory and practice become one. For this to happen distance educators must become more critically aware in their analysis and reflection. The analysis and reflection above suggests that when such an approach is applied as an ongoing process to distance education in the Third World, the promise moves nearer to reality, the rhetoric is closer to action whilst theory and 'practice begin to merge.

It now only remains for distance educators to analyse and reflect on the practice in the Third World and change it accordingly.

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UNIT 4 CHINA'S HIGHER DISTANCE EDUCATION – ITS FOUR SYSTEMS AND THEIR STRUCTURAL CHARACTERISTICS AT THREE LEVELS*

Xingfu Ding

Editor's note: This is a comprehensive piece on Distance Education in China. This article explains in detail the Chinese experience which is interesting.

Since the end of the 'Cultural Revolution', China has carried out a range of socioeconomic reforms and a policy of increasingly opening the door to the outside world. In the rest of the 1990s and the next century it is to be expected that China will play a more active and important role in the international community and particularly in the Asia-Pacific region. *In the process of China's modernisation, higher distance education has made a special contribution to both higher education and more generally to socioeconomic development.* However, there have been only a few publications in English about China's higher distance education, and these have mainly been about China's Radio and TV Universities (Mc Cormick, 1982; Hawkrigde and Mc Cormick, 1983; Ding, 1986; Huang, 1990, Ding, 1992; Zang and Ding, 1993; Ding, 1994 etc.).

This report will provide readers with a broader analysis of the system and structure of China's higher distance education from an organisational and an administrative perspective. It concentrates on the description and analysis of China's four major higher distance education providers:

- Higher Correspondence Education;
- Radio and TV Universities Education;
- Satellite TV Teacher Training; and
- State Administered Examinations for independent study.

This report shows that China's system of higher distance education has a number of characteristics in common with other national education systems, for example, its large scale and public character and the substantially expanded and diversified provision of tertiary education, mainly in-service for adults. Within this context the report identifies different models of organisational structure for each of the four providers:

- 1) China's Higher Correspondence Education is identified as the Separated Multi-Departments Dual Model.
- 2) The Radio and TV Universities Education is the Chinese hierarchical Multi-Bodies Model.
- 3) China's TV Teacher Training Institute is recognised as the Courses Transmission Centre Model.
- 4) The State Administered Examinations of Higher Education for Independent Study is the State Examinations Model.

The first is similar in structure to correspondence education systems in a number of other parts of the world (e.g. Russia and the United States), but is quite different from the integrated model which characterises Australian distance education provision.

China's Radio and TV Universities Education (2) is a unique hierarchical and multi-bodied system with five layers, together with a unique administrative and operational mechanism, based on 'overall planning, running schools and managing at various layers' (from The Temporary Regularities of China's. Radio and TV Universities, issued by the SEDC, see CR~U 1989: 7478). In this sense, the Chinese Hierarchical Multi-Bodied Model is quite different in organisation and administration from the other single mode institutions in other countries, such as the United Kingdom Open University

China's TV Teacher Training Institute (3) is responsible for producing and delivering multimedia course materials for in-service primary and secondary school teachers in collaboration with other educational and broadcasting organisations. In this way the Institute has become the Courses Transmission Centre in the satellite TV teacher training programme.

The State Administered Examinations of Higher Education for Independent Study (SEHEIS) (4) was introduced in China in the early 1980s. There is still a debate about the nature and implementation of such an examination system. Some consider it to be a form of higher distance education and a distinct part of China's higher distance education system, but most recognise it as simply a national examination system, not as a form of institutionalised distance education provision.

The major thrust of the system-analytical methodology applied in this report is to identify the main features of each system of provision at each of the following three levels:

- 1) the macro level – the national system and structure;
- 2) the median level – the institutional organisation and structure; and
- 3) the micro level – the operating (teaching and learning) subsystem and its organisational structure.

Higher Correspondence Education (HCE)	Radio and TV Universities Education (RTVUsE)	Satellite TV Teacher Training (TVTTI)	State Administered Examinations for Independent Study (SAE)
Commenced operation 1953 Provisions in 1993-94 ● Correspondence divisions of 796 regular higher education ● Four independent correspondence colleges	1960/1979 ● Central Radio and TV ● Universities ● 43 Provincial RTVUs ● 654 branch schools ● 1,500 work stations ● over 10,000 TV Classes	1986/1987 ● China's TV Teacher-Training Institute ● Various education colleges, teacher training schools and RTVUs	1987 ● National Guidance ● Committee ● Provincial Guidance ● Committees ● Various examinations ● holder institutions ● Various learning ● support units

Higher Correspondence Education (HCE)	Radio and TV Universities Education (RTVUsE)	Satellite TV Teacher Training (TVTTI)	State Administered Examinations for Independent Study (SAE)
Basic statistics in 1993-94 Enrolments: 593,400 Entrants: 257,000 Graduates: 140,200	- Enrolments: 437,900 - Entrants: 213,300 - Graduates: 101,600 - Full time staff: 41,100	(Not calculated independently)	- Enrolments: (unit - Person-course): 4,838,100 - Graduates: 127,100 - Full-time staff: 4,000
Programmes - Normal undergraduate studies awarding normal diplomas and degrees - Short-cycle undergraduate studies Awarding junior diplomas only	- Short-cycle - Undergraduate studies awarding junior diplomas only - Various non-diploma programmes awarding certificates only for adults	- Normal undergraduate studies for senior high school teachers - Short-cycle programmes for junior high school	- Normal undergraduate studies awarding diplomas and degrees - Short-cycle undergraduate studies awarding junior diplomas in both fundamental and specialised programmes
Curricula Most study fields in regular higher education institutions	Most study fields in regular higher education institutions	Teacher training courses	Most study fields in regular higher education institutions
Learner Target groups Adults mainly (10% of total: school leavers)	Adults mainly (15% of total: school leavers)	In-service teachers at high schools	Any independent study applicants, without limitations
Types of registration - Part-time and spare-time - Group based; - Correspondence classes in work places - Compulsory paced	- Full-time, part-time and spare-time - Group based: TV classes in work places - Compulsory paced	- Spare-time - Group-based or individually in the schools - Compulsory paced	- Spare-time - Individually in most cases and in groups casually
Instructional media - Correspondence printed course materials - Correspondence tutorials	Printed course materials	- Printed course materials - National TV Programmes satellite	- Optional paced - Printed course materials

Higher Correspondence Education (HCE)	Radio and TV Universities Education (RTVUsE)	Satellite TV Teacher Training (TVTTI)	State Administered Examinations for Independent Study (SAE)
● Face-to-Face tutorials Face-to-Face tutorials A few audio-visual course materials	● National TV Programmes by micro-network and satellite ● Face-to-face tutorials ● Local radio and TV programmes ● Other audio-visual materials	● Face-to-face tutorials ● A few other audio-visual materials	● A few audio-visual materials ● Face-to-face tutorials by various kinds of institutions and organisations
Model of system and structure Separated Multi Departments Graduates: 140,200	Chinese Hierarchical Multi-Bodies Model	Course Transmission Centre Model	State Examination Model

Chinese higher distance education: A binary system

China has a nationwide binary system of higher distance education: Higher Correspondence Education (HCE) and Radio and TV Higher Education (RTVHE). Higher correspondence education refers to undergraduate education offered by Correspondence Division of Regular Higher Education Institutions (RHEIs) and Independent Correspondence Colleges. The radio and TV higher education refers to undergraduate education provided by Radio and TV Universities (RTVUs) in China and China's TV Teacher Training Institute (CTVTI) at tertiary level. The national binary system of higher distance education in China provides only higher education of undergraduate programmes, and not any postgraduate degree programmes. For postgraduate studies all enrolments are on campus. A wide range of study fields are offered by both HCE and RTVHE, including most fields of study in RHEIs in China. China's higher distance education is normally for in-service adult education and training though there is a small percentage of young school leaver enrolment. In the academic year of 1993-94 the total number of institutions providing higher distance education was 844, with a total enrolment of 1,019,200 of which around 131,000 were young school leavers. The total entrants (commencing students) and graduates (completions) in 1993 were 466,300 and 238,200 (of which, 79,200 and 23,700 respectively were young school leavers). China's higher distance education also provides a variety of other non-diploma education . programmes mainly for adults. These programmes award various kinds of certificates but not diplomas or degrees at the tertiary level.

Higher correspondence education

Correspondence and evening education programmes provided by the People's University of China in Beijing marked the beginning of higher correspondence education and evening college education in the People's Republic of China in 1953. Since then, with the exception of the interruption of the Cultural Revolution (1966-1976), correspondence and

evening education have represented adult higher education programmes offered by those regular higher education institutions which have the full-time advanced learning for young school leavers as their main task.

The following are the main characteristics of the system and structure of China's Higher Correspondence Education at the macro, median and micro levels respectively.

At the macro level – the national system and structure

There is a central authority, titled the 'Third Division of Higher Education' in the 1980s and the 'Adult Education Division' in the 1990s, as a department of the State Education Commission (SEDC) of the State Council, which is responsible for planning, policy-making, macro-adjustment, control and management of HEC.

At the median level – the institutional organisation and structure

The separated model: in China, HCE provisions are mainly run by the RHEIs which accept both full-time young school leavers, who are studying and living on campus, and correspondence students, who are taught and managed separately.

Staffing structure: different groups of academic staff teach and assess the two types of students. Those academic staff responsible for correspondence teaching and assessing are organised in several ways:

- special groups formed within the relevant Teaching and Research Sections;
- special Correspondence Teaching and Research Sections set up within the relevant departments; and/or
- schools, and special Correspondence Teaching and Research Sectors built up under the segregated Correspondence Education Division.

The first two kinds of organisations are most popular and the last is the least popular.

Correspondence programmes, curricula, syllabi and course materials are specifically designed only for correspondence students and are different from those for full-time study.

Assessment, accreditation and awarding systems are also different and separated. Finally, the two types of students will be awarded different types of diplomas and degrees, but their standards at the same level are required to be equivalent.

Most RHEIs providing correspondence education have established a segregated administrative body titled Correspondence Division; a few institutions have set up independent correspondence colleges or schools for both administrative and instructional tasks.

Correspondence Work Station (CWS) structure: there are three kinds of correspondence work stations that are used by different providers. These are institutional, local and departmental CWSs. All CWSs are responsible for organising and managing attached Correspondence Classes (CCIs) on behalf of the sponsored RHEIs.

At the micro level—the operating subsystem and its organizational structure

Student learning model: groups based in workplace (in contrast to home based), are common elements of Chinese correspondence education. Students are usually organised in Correspondence Classes and several classes are under the management of a CWS.

The basic structure of correspondence study in China is independent study under the guidance of a correspondence tutor with face-to-face tutorials in the semester, and intensive face-to-face tutorials before the examination at the end of each semester. The main course materials are printed correspondence text books and study guides with readers and set books. Over the past decade print materials have been supplemented with some audio and video material.

Compulsory pacing is a key feature of correspondence teaching and learning in China. It is organised in the form of compulsory regular and intensive face-to-face tutorials and also by compulsory paced assignments and a marking timetable. Accordingly, correspondence education programmes provided in China are mainly run in the form of a semester credit system.

According to the above considerations, China's Higher Correspondence Education is not an homogeneous model. There are four independent correspondence colleges with full autonomy in distance teaching assessment, accreditation and administration. In addition, only a few RHEIs (e.g. the people's University in Beijing) have set up independent correspondence colleges or schools with both distance teaching and administrative functions. However, most provisions of higher correspondence education offered by the RHEIs (e.g. Beijing University) can be identified as examples of the Separated Multi-Departments Dual Model. The main characteristic of this organisational model is that correspondence students are taught by separate groups of academic staff using different course materials and assessment procedures, and a segregated correspondence division is set up mainly to conduct the administrative functions.

Radio and TV higher education

China was one of the first countries to use radio and television for higher education purposes. The first group of metropolitan television universities was set up in the 1960s when television (black and white) usage became widespread in those metropolises. The Beijing Television University was the first one to be set up in 1960. Shanghai, Guangzhou (the capital of Canton province), Harbin, Shenyang, and other big cities, followed suit. Unfortunately, the development of this newly emerging initiative was interrupted by the Cultural Revolution (1966-1976).

By the end of the 1970s, China had entered a new historical era. Since then socioeconomic reform and the policy of opening the door to the outside have become key elements on the national agenda. In order to achieve the goal of modernisation in socioeconomic development there is a huge and urgent demand for highly qualified professional personnel and a knowledgeable and skilled labour force.

Mr. Deng Xiaoping met former British Prime Minister Mr. Heath, when he visited China in 1977, and talked about the shortage of qualified professional personnel and undeveloped higher education in China.

Mr. Heath spoke of the achievements and experiences of the UK Open University to Mr. Deng. Later Mr. Heath sent a letter to Mr. Deng expressing his wish to help China to initiate a university of the air and providing information about the UKOU. By then, a colour television network had been built throughout China (excluding Tibet). Hence the basic technological conditions for the establishment of a national radio and TV education system came into existence.

Mr. Deng Xiaoping appointed the former Vice-Premier Fang Yi to make the arrangement for it. On February 6, 1978 Mr. Deng approved the report jointly submitted by the Ministry of Education and the Ministry of Broadcasting on the founding of a national radio and television universities system. After one year's preparation, the Central Radio and TV University (CRTVU), based in Beijing, and another 28 Provincial Radio and TV Universities (PRTVUs) (except Taiwan and Tibet) were established. On February 6, 1978 CRTVU first transmitted courses via the microwave network of China Central Television (CCTV).

Since 1986, China has begun to use a special satellite to transmit TV education programmes for various purposes. In 1987, the Chinese Educational Television (CETV) and China's TV Teacher-Training Institute (CTVTI) were formally set up by SEDC to be responsible for completing Satellite TV Education and In-service Training for Primary and Secondary School Teachers.

After more than one decade's development, China's Radio and TV Higher Education (RTVHE) has taken shape.

The following are the main characteristics of the system and structure of China's RTVUs Education at the macro, median and micro levels respectively.

This system and structure can be identified as the Chinese Hierarchical Multibodied Model or simply Called China's RTVUs Model.

At the macro level – the national system and structure

China's RTVUs System has a unique administrative and academic organisational structure with five layers parallel to the structure of China's administration of governments.

Central layer: the Central Radio and TV University (CRTVU), based in Beijing, is the heart of this national system. It was run jointly by the Ministry of Education and the Ministry of Broadcasting in 1979, and since 1984 by the State Education Commission.

Provincial layer: The Provincial Radio and TV Universities (PRTVUs). There are 31 provincial level governments (including the province Taiwan and the province Hainan, newly established in 1988) in China. Of these, 23 are Provincial; five are Autonomous Regional, and three are Municipal. Each of them (except Taiwan and Tibet) has established a PRTVU. In addition there are 14 cities listed as independent planning entities, and each of these also operates an independent PRTVU. So there are 43 PRTVUs altogether.

Prefectural or civic layer: The Branch Schools (BSs). There are nearly 330 prefectures and prefecture-level cities in China. Most of them have established Branch Schools attached to the national RTVUs system and corresponding PRTVUs. Also there are hundreds of Branch Schools run

by various departments of economic and industrial sectors and other societal organisations or institutions.

Counties layer: The Work Stations. There are more than 2,200 counties and equivalent administrative units in China. Many of them have set up Work Stations attached to local Branch Schools. There are lots of Work Stations run by departments of economics and industries and other societal organisations and institutions as well.

Grassroots layer: The TV Classes (TVCLs). The TV Classes are the grassroots level of China's national RTVUs system, most of them are run by various grassroots units in Chinese society, or by RTVUs at various layers, by various departments and other societal organisations and institutions.

China's RTVUs System is operated on the basis of 'overall planning, running schools and managing at various layers' with the CRTVU as its centre (see different responsibilities of each layer of RTVUs system below for a detailed description).

There is a central authority, titled the Electronic Education Bureau between 1985-1993, and called the Electrification Education Committee since 1994, as a department of SEDC, which is responsible for planning, policy-making, macro-adjustment, control and management of the overall Electrification Education (EE) including RTVHE, reporting to a Vice-Minister of the SEDC directly.

Until now, by the decision of SEDC, the RTVHE in China provides only short-cycle undergraduate studies and not normal undergraduate or postgraduate studies. Short-cycle higher education diploma programmes in various study fields, disciplines and specialities have been offered by the CRTVU nationwide and also by regional PRTVUs and some Branch Schools to meet local needs.

Both of the largest national TV networks in China, the CCTV and the CETV give their support and service for the RTVHE. The CCTV, under the leadership of the former Broadcasting Ministry, now the Radio, Film and TV Ministry, provides its transmission services through an agreement between the radio, film and TV Ministry (RFTVM) and the SEPC, while the CETV, under the leadership of the SEDC directly gives its support and services to educational programmes including RTVHE. In addition, the regional and local radio and TV broadcasting networks at provincial, prefectural or civic, and country levels throughout China, provide their support and services to regional and local RTVHE coordinated by the regional and local governments and relevant departments.

At the median level – the institutional organisation and structure

Single mode: In China, RTVHE provisions are run by newly established national RTVUs system exclusively for distance learners.

China's RTVHE provisions are mainly for in-service adults, but also accept some young school leavers. In addition distance learners in RTVUs can choose study types of full-time, part-time and spare-time.

Staff structure: The institutions at all layers of China's RTVUs system have their own full-time staff, including academic staff, and also some part-time academic staff recruited from other higher education institutions, research institutes, related business companies and so on.

According to the general basis of operation – ‘overall planning, running schools and managing at various layers’, the institutions at various layers of China's RTVUs system have different administrative and academic responsibilities.

1) **CRTVUs**

- a) Produce the curricula for RTVUs and ensure that the curricula include all the subjects which are recognised as of interest nationally, and offer the key courses in them.
- b) Produce syllabi, radio and TV programmes for these key courses. Write, edit, publish and distribute multimedia materials for these courses.
- c) Set end-of-semester national unified examinations for these key courses and ensure that marking is standardized, and draw up national examination timetables.
- d) Train teachers, technicians and administrative staff.
- e) Conduct research on higher education through distance learning.
- f) Direct and supervise the instruction and teaching administration of PRTVUs and co-ordinate academic work when it is shared by more than one PRTVU.

2) **PRTVUs**

- a) Produce courses in subjects which are of specific interest to their region.
- b) Produce syllabi, TV and radio programmes, write course materials and supplementary materials for the courses they have produced.
- c) Set end-of-semester examinations for their own courses and mark them. Timetable the examinations set by CRTVU and mark these papers.
- d) Ensure that teachers follow set administrative and examination procedures. Enrol new students, keep student records and issue diplomas and certificates.
- e) Train teachers and keep abreast of new teaching methodology. Promote the interchange of ideas on the running of local RTVUs institutions.
- f) Direct and supervise the teaching and administrative work done in branch schools and work stations.

- g) Provide advice, guidance and help to students with academic and personal problems.

3) **Branch Schools**

- a) All aspects of time tabling. This includes timetables for watching TV programmes, tutorials, examinations, tests, laboratory work and field studies as set out by CRTVU and the regional PRTVU.
- b) Ensure that the teachers follow the set administrative and examination procedures. Ensure that course syllabuses are adhered to.

- c) Set up work stations and TV classes and direct and supervise their work.
- d) Provide advice, guidance and help to students with academic/ personal problems.
- e) Issue diplomas and certificates.
- f) Administer established courses in the subjects which are of specific interest locally.

4) Work Stations

- a) Recruit teachers and tutors.
- b) Organise TV classes and maintain high teaching standards. Timetable tutorials, laboratory work and field studies. Distribute teaching materials.
- c) Provide advice, guidance, and help to Students with academic/ personal problems.

At the micro level – the operating subsystem and its organisational structure

Student learning model: groups, based in workplace (in contrast to home based), are common elements of Chinese Radio and TV higher education. Students are usually organised in the TV classes and several classes are under the management of a work station.

Basic structure of study in China's RTVUs System: Independent studying on print materials; regularly watching the TV or programmes on video cassettes, listening to the radio programmes or audio cassettes in groups, usually in the fixed classrooms located in their grassroots unit; regularly attending the face-to-face tutorials in the classrooms; completing and sending the homework and regular assignments and getting the feedback (marking and comments) from their face-to-face tutors for every course; organising assessments and end-of-semester examinations. Some courses require laboratory work (or can be completed using experimental kits at home) and other types of practical work such as the field exercises, teaching practice, social surveys, course designing and so on. The short-cycle higher education diploma programmes also require students to complete some kind of graduate designing or graduate assignment before being awarded the diplomas.

Compulsory pacing is a key feature of teaching and learning in China's RTVHE. It is organised in the form of compulsory regular face-to-face tutorials in the classrooms and also by compulsory paced assignments and the marking timetable. Accordingly, China's RTVUs are run mainly in the form of a semester credit system (the credits can be kept effective for ten years).

The administrative and academic responsibilities of TV classes:

- a) Drawing up class timetables each semester.
- b) Organising the viewing of and listening to course programmes. Arranging tutorials, laboratory/experimental work and other practical works.
- c) Encouraging students to take part in physical education and recreational activities in their spare time.

- d) Maintaining contact with the work units to which their students are attached.

Satellite TV teacher training

Unlike China's RTVUs Model, China's TV Teacher-Training Institute (operated since 1986 and formally founded in 1987) has features and characteristic system and structure, which has been sometimes called the Courses Transmitting Centre Model, or simply China's TVTTI Mode.

The main characteristics of the system and structure of China's TVTTI Education: .

At the macro level – the national system and structure

The only newly established nationwide institution is China's TV Teacher Training Institute based in Beijing. The Institute is under the leadership of the SEDC and its department of Electrification Education Bureau. CTVTTI is responsible for nationwide planning, organising and managing of in-service training for primary and secondary school teachers.

CETV is responsible for transmitting teacher training programmes via special satellite TV education channels. CTVTTI has only a few administrative staff but no academic staff. Its main task is to collaborate with China's Higher Education Publishing House, China's People's Education Publishing House and various regular higher education institutions in the design, production and distribution of educational programmes, curricula, syllabi and various course materials for teacher training in a variety of study fields by academic staff in RHEIs.

At the median level – the institutional organisation and structure

All higher education institutions are relevant to teacher training. Most of them are the adult higher education institutions such as Education Colleges and Teacher Training Schools, also Local RTVUs also can run schools or classes for teacher training by using the course materials and TV programmes transmitted by CTVTTI and CETV.

Those institutions involved in teacher training in this way are responsible for organising students classes, teaching: assessment and examinations, and awarding their own diplomas or certificates.

At the micro level – the operating subsystem and its organisational structure

In-service teachers at primary and secondary schools are required to pass the unified entrance examination to get the status of enrolment. Students are organised in groups and learn by using printed materials for courses, watching TV programmes and attending the face-to-face tutorials organised by registered institutions.

It is clear that the Courses Transmitting Centre Model is much more loose and flexible than the Chinese Hierarchical Model. In 1993, the TV Teacher, Training Institute became a part of the Central Radio and TV University.

State Administered Examinations of Higher Education for Independent Study

A national examination system called State Administered Examinations of Higher Education for Independent Study (SEHEIS) was introduced in China, first in several metropolises in 1981, then in all parts of the nation

in 1983. From 1981 to 1990, there have been issued 524,644 short-cycle and 3,785 normal undergraduate diplomas, and 859 bachelor's degrees altogether. In 1993, the SEHEIS provided examinations of courses in 14 specialities, and received a total of 4,838,100 applications and awarded 127,100 undergraduate diplomas.

The main characteristics of the system and structure of the State Administered Examinations of Higher Education for Independent Study. The following are the three main features of the system and structure of the SEHEIS in China: independent study is the basis; learning support services are provided by various societies and state administered examinations are the core of the system. The SEHEIS provide both normal and short-cycle (including specific and fundamental) higher education diplomas.

At the macro level – the national system and structure

There is a National Guidance Committee (NGC) of State Administered Examinations of Higher Education for Independent Study approved by the State Council and the 13 Professional Committees and one Examination Research Committee under the National Guidance Committee. In addition, there is an Office of SEHEIS in the SEDC. The responsibilities of these Committees and Offices are:

- to produce policies and guidelines for the SEHEIS;
- to work out the examination programmes and examination syllabi for various study fields and specialities;
- to co-ordinate the writing and approving of course materials by organising experienced academic staff (professors and experts in related study fields and specialities) in the RHEIs;
- to unify the standards of the SEHEIS nationwide; and
- to carry out academic guidance, evaluation and research for the SEHEIS.

There are the Provincial Guidance Committees (PGC) and the Offices of SEHEIS in each province, autonomous region and municipality. Their responsibilities are:

- to issue the list of study fields and specialities involved in regional SEHEIS;
- to organise the examinations by the Committees, or to appoint some RHEIs as the Examinations Holder Institutions (EHIs);
- to award certificates for single course completion and normal or short cycle higher education diplomas for graduates; and
- to manage matters related to examinations.

There are also the Working Committees or Units and the Offices of SEHEIS in related prefectures, cities and counties, responsible for organising the examinations.

At the median level—the institutional organisation and structure: the EHI and its functions

The Examinations Holder Institution (EHI) for a certain speciality is chosen and approved by the PGC of SEHBIS. It should be a well-known RHEI in that study field and speciality, with a good reputation for its academic staff and educational condition.

The EHIs take part in the work of deciding the standards of examinations and assigning the question sheets of examinations.

The EHIs organise the work of marking examination sheets and accreditation.

The EHIs organise the practical work (experiments or laboratory work, field exercises etc.) for examinees;

The EHIs jointly with PGC of SEHEIS issue the diplomas.

The EHIs should not organise tuition for examinees in the courses examined by them. That means that tuition must be separated from the assigning of examination questions.

At the micro level – the operating subsystem and its organisational structure: combination of independent study with social learning support services

Examinees can choose to study independently and/or receive the learning support services provided by various societies, including various tuition classes such as TV, correspondence and face-to-face tutorials.

The learning support services are provided by various departments of governments and industries, educational and societal organisations and institutions, e.g. mass organisations, democratic parties, academic associations etc.

Summary

China has a nationwide binary system of higher distance education: Higher Correspondence Education (HCE) and Radio and TV Higher Education (RTVHE).

China's higher correspondence education is mainly offered by the regular higher education institutions and has a dual but separated mode. That is, full-time students and correspondence students are taught by different groups of academic staff. In addition, the teaching programmes, curricula, syllabi, course materials, assessments, examinations, accreditation and awarding of diplomas and degrees for two types of students are different. This Separated Multi-Department Dual Model is more or less similar to those in the other parts of the world (e.g. Russia and the United States), but quite different from the Australian Integrated Model where both external and internal students are taught by the same academic staff using the same curriculum and course materials and given the same examinations and degrees.

China's RTVHE is mainly provided by the national RTVUs System, which has been established exclusively for distance learners. The system has a hierarchical structure with five layers and is operated on the basis of overall planning, running schools and managing at various layers. The institutions of China's RTVUs System at various layers have different administrative and academic responsibilities. In this way, the Chinese Hierarchical Multi-Bodies Model is quite different from other single mode institutions (e.g. the Open University in the United Kingdom and those in other developed and developing countries) where a single (usually national) institution (not a multi-institutional system) has autonomy and rights over its planning, policy-making, financing, staffing, administration and management, teaching, assessment, accreditation and awarding.

As the Courses Transmission Centre, China's TV Teacher Training Institute provides distance education in co-operation and collaboration with other organisations, which is more or less similar to those multi-institution systems of higher distance education in other parts of the world. In addition, the State Administered Examinations of Higher Education for Independent Study is a national examinations system rather than an institutional one such as the external degrees system in London University.

In China, higher distance education, as a part of adult higher education, is operated under the planning and control of the Central Government, that is, the state Education Commission and its relevant departments. The strong impact and influence of rationalisation and concentration coming from the SEDC can be seen clearly through the whole history of China's higher distance education. In this aspect, China's higher distance education system is also rather different from those systems in Western countries with a far greater degree of institutional autonomy.

In both systems of HCE and RTVHE in China, the students are organised in group correspondence classes or TV classes based on their grassroots working units. Compulsory paced face-to-face tutorials are a common element of higher distance education in China. These elements of China's higher distance education have led to it being referred to as the 'Eastern Consultation' Model and make it quite distinct from the Western Correspondence Model of home-based, self-paced and individualised forms of learning with fewer or no existing face-to-face sessions (see Peters, 1971; Ding, 1986 and 1992).

Correspondence printed materials are the leading instructional media for HCE, while the radio and TV programmes supplemented by audio and video cassettes comprise the key instructional media in RTVHE. China's RTVHE use TV programmes on a large scale, not only the total amount of transmission hours annually (5,558 class hours in 1993, 50 minutes each class hour), but also for each single course and individual learner. This is a unique way of using TV broadcasting for higher distance education in the world (see Ding, 1986).

All these characteristics of China's higher distance education make it quite unique from other distance education systems in the world, not only in organisation and administration, but also in multimedia teaching and learning.

China is a developing country with a huge population. In the view of per capita indexes, China's telecommunication and higher education are still relatively weak. For example, telephone services are not common yet, even in sections of higher education in the metropolises. Two-way telecommunication cannot be easily introduced to China's higher education system because of financial problems, and, therefore, China's Higher Correspondence Education provided by the RHEIs will remain as an example of 'first generation' distance education. China's Radio and TV Higher Education will stay in the form of 'second generation', the industrialised form of distance education, by using mass broadcasting media to deliver China's higher distance education courses in the next few decades (see Peters, 1973; Campion and Kelly, 1988; Nipper, 1989).

Abbreviations

BS(s)	–	Branch Schools(s)
CCIs ccrv	–	Correspondence Classes
CCTV	–	China Central Television
CETV	–	Chinese Educational Television
CRTVU	–	Central Radio and TV University
CTVTTI	–	China's TV Teacher Training Institute
CWSs	–	Correspondence Work Station(s)
EE	–	Electrification Education
EHIs	–	Examinations Holder Institutions
FLVs	–	Free Listeners-Viewers
FRUs	–	Formal Registered Undergraduates for full courses
HCE	–	Higher Correspondence Education
NGC	–	National Guidance Committee
NUEE	–	The National Unified Entrance Examination
PGC	–	Provincial Guidance Committee
PRTVUs	–	Provincial Radio and TV Universities
RHEIs	–	Regular Higher Education Institutions
RTVHE	–	Radio and TV Higher Education
RTVUs	–	Radio and TV Universities
SCSs	–	Single Course Students
SEDC	–	State Education Commission
SEHEI	–	State Administered Examinations of Higher Education for Independent Study
TVClS	–	TV Classes
WS(s)	–	Work Station(s)

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UNIT 5 OPEN AND DISTANCE EDUCATION AS SOCIAL PRACTICE*

Rigmor George (1995)

Editor's note: This paper explores distance education as social practice by drawing on theories of communication and socio-linguistics. Language is fundamental to all social situations including open and distance educational contexts. It is through language that teachers construct texts which indicate student learning intentions; and it is through language that students reconstruct these intended meanings and give expression to them.

The paper argues that success of an open or distance education teacher or student is dependent on expertise in the linguistic demands of the educational context. Though some of these demands are common with traditional forms of education, open and distance context add another level of complexity. In particular, the paper advocates a consideration of discourses as fundamental

Introduction

All those involved in teaching and learning are fundamentally concerned with language. Though the primary focus is on the ideas promoted in the teaching/learning situations, the fact is that these ideas are mediated through language. It is through language that personal understanding of worlds (including the world of open and distance education) are built – and through language that this understanding is expressed.

This paper draws particularly on the theoretical frameworks of communication and socio-linguistics to explore the language of open and distance education contexts. In keeping with these fields of study, the word text is used to mean any continuous piece of language (either spoken or written) that is meaningful. In this context, these texts include the spoken and written language which constitute the activities of teaching and learning in open and distance education.

The position taken is that education fundamentally involves the production and interpretation of particular kinds of text by teachers and learners (Kress 1985, p.5). The settings of open and distance education share some of these texts with conventional education, but they also give rise to certain other kinds of texts which make specific demands on both teachers and learners. This paper explores how these texts are produced and interpreted. It establishes the essential position of language in all social practice, specifically open and distance education. Being able to function in social situations, such as educational contexts, requires intimacy with complex social and cultural perspectives as well as a range of personal language resources.

Central to this consideration is that language is not neutral. All texts, either overtly or covertly, present particular value positions. Educational texts are particularly problematic because they have a role in the distribution of wealth and power in society through the attainment of academic qualifications. To some extent the justification for open and

distance education is in the greater access that this mode provides to the social benefits of education.

Because of the central role language plays in educational settings, the success of learners (with its wider social implications) is determined to a significant extent on expertise in the production and interpretation of the forms of language which are used in educational settings. For those involved in open and distance education the focus is on the texts specific to these settings.

Language as social practice

One of the most difficult things about the study of language is that in most instances it is invisible: the impact that language has in a social situation is generally not acknowledged. The focus is generally on the actions that the language accompanies, or on the ideas generated, rather than the role the language itself plays in the situation. In this paper the language itself is drawn into the centre of the discussion because of the integral part language plays in all social situations. It is inextricably entwined with social life so that participation in all aspects of society is dependent on language in a fundamental way.

It is not just that language accompanies social action: it is integral to it. Indeed, Kress (1985, p.4) considers there to be 'total connectedness' between linguistic and social processes. Fairclough elaborates the point.

Language is a part of society; linguistic phenomena are social phenomena of a special sort, and social phenomena are (in part) linguistic phenomena. Linguistic phenomena are social in the sense that whenever people speak or listen to or write or read, they do so in ways which are determined socially and have social effects. Social phenomena are linguistic, on the other hand, in the sense that the language activity which goes on in social contexts (as all language activity does) is not merely a reflection or expression of social processes and practices, it is part of those processes and practices. (1989, p.23).

The point Fairclough is making is that language is not a tool which is apart from the social activity, it is a part of it in a fundamental way. As well as shaping the social situation, it is shaped by it. Particular words do not simply achieve specific social ends in an instrumental way; the social situation shapes the very forms of language used. The inescapable implication of this is that in the consideration of a social practice such as education (or in this case specifically open and distance education) there needs to be a focus on the language of that situation.

Communication

Communication is a fundamental concept in educational practice. General educational contexts use a range of language experiences to convey meaning. These include various face-to-face experiences including lectures and tutorials as well as mediated forms such as film and written texts in various forms.

Within open and distance education the potential range of textual experiences is narrowed because of the non-contiguous context. There is a significant dependence on written language, with audio and video tapes also being important teaching resources. In addition, telephone contacts (either conferencing or individual encounters) are also common experiences. There is also occasional use of visual forms by way of diagrams.

Because communication is such a fundamental aspect of teaching and learning, we will now focus on one way of understanding the communication processes operating. Fiske (1990, p.2) outlines the semiotic (from the word for sign) school of thought which presents communication as the 'production and exchange of meanings'. He claims:

"It is concerned with how messages, or texts, interact with people in order to produce meanings; that is, it is concerned with the role of texts in culture. It uses terms like signification, and does not consider misunderstandings to be evidence of communication failure -- they may result from cultural differences between sender and receiver. For this school the study of communication is the study of text and culture".

To understand communication in this way has important implications. in educational contexts because it affects the roles students and teacher play as the generators and interpreters of texts.

According to the process school, the message originates with the sender and is transmitted to the receiver. Communication is said to occur when the message sent is the one received. When the message sent is not the same as the one received, communication is considered to have failed.

In the semiotic school, the emphasis is on creating meaning rather than sending message. The sender creates meaning about an aspect of external reality by drawing on personal experiences and understandings – and expresses this meaning through text in the form of sounds or writing. The receiver (re) creates meaning about the external reality through interaction among the signs of the text (spoken and/or written) provided by the sender, mediated by his/her personal experiences and understandings.

From this perspective, meaning is not a static entity. Rather it is negotiated. People from various backgrounds or at different stages of their lives will gain a different message from the same text because of the different perspectives they bring. This is not seen as a failure to communicate. Instead, it is an acknowledgement that communication is fundamentally linked to cultural and social contexts.

Because the interpretation of a text is dependent as much on the reader's/hearer's individual, social and cultural experiences as the text itself, participants who share social and cultural contexts and other texts, are likely to create similar meanings through the interaction. Where these aspects are not shared to such an extent, large differences will become apparent.

Fiske (1990, p. 4) offers the following diagram as a representation of communication.

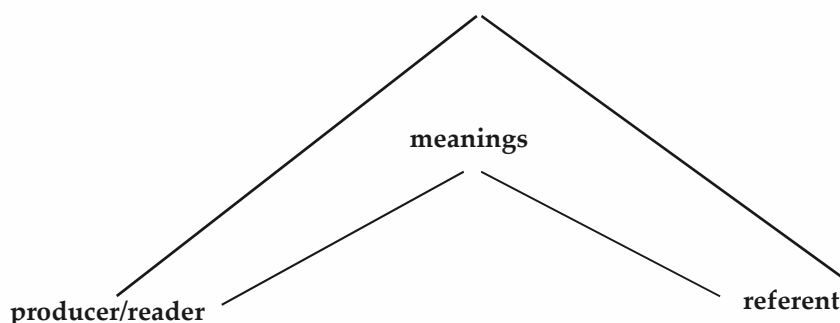


Fig. 5.1: Messages and meanings

(From Fiske 1990, p.4)

In this diagram, the basic elements are the sign (the message), the 'thing' which the sign refers to (the referent) and the users of the sign. Whether producing or reading a sign, meaning is made in the same way. It occurs within an individual, by the interaction of that individual's personal background with the text. Signs depend on the users of the sign recognising them as having a particular meaning. For example, it was important for us at the beginning of this paper to be clear about the meaning of the sign (word), text, because there are a number of ways to understand this word.

Without a shared meaning of this, our discussion could have been at cross purposes. The value of the semiotic perspective is that it locates the issues of communication in society and not in the technical aspect of the process (Fiske 1990, p. 190).

Communication through language is, therefore, not just about knowing particular words or even the specific meanings of those words. It is about the personal construction and reconstruction of meanings in a specific social setting of a culture. Participants need to draw on cultural and social knowledge, including the relationship between particular language forms and specific situations, as well as their previous textual history (Christie 1987, p. 24).

The semiotic approach offers a particularly rich way of understanding language in educational settings, including open and distance education situations. This paper, therefore, draws on the theories of the semiotic school in considering communication in educational settings.

Communication in open and distance education

If we apply the semiotic school's view of communication to open and distance education, we understand the teaching-learning processes to be concerned with the construction and reconstruction of meanings in noncontiguous educational settings. Within a particular field of study, the significant issues are the social and cultural backgrounds of the participants, and the assumptions that can be made about the learner's knowledge of, or access to, other relevant 'texts'.

These issues include those common to all educational encounters, such as the appropriateness of using western educational programs in cross-cultural situations, the implications for the range of socioeconomic groups in our society, and the consequences of students coming to meanings of a text which are different from those intended. What are the life experiences, values, and understandings that are assumed in the text? Do some sections of the community have greater access to this kind of knowledge and understanding? Do the activities and other learning devices which activate learning draw on a wide range of gender, race, and class experiences? Without such anchors on which to ground their learning, students' learning experiences will be less than satisfactory, and some will be at risk of failure.

In addition to these more general considerations, there are issues specific to open and distance education which arise because of the individualised nature of the learning arrangements. There are three in particular that we will consider at this point.

Firstly, in open and distance education, students are not present, perhaps not even known, when the learning packages are prepared. If the development of materials is dependent on the kind of audience 'in

mind', then the characteristics of that audience need to be clear. The success of the package is determined, to a large extent, on predicting and understanding the kind of audience undertaking the program. Is the course being prepared for some mythical 'typical' student, (thereby effectively disenfranchising all others), or is it aiming to be inclusive, providing for a wide range of people from varying backgrounds? Though this is an issue for all modes of delivery, it is of particular importance in open and distance education because the teaching processes are separated from the learning experiences in time and often also in place. Conventional settings have the potential (even if it is seldom realised) for negotiation of the content and teaching method to occur at the point of learning.

Secondly, in the vast majority of cases, the primary delivery of the course is through written language rather than spoken. This is a major difference which has important implications for the design and delivery of curricula.

Thirdly, students may have relatively limited access to some texts which have the potential to contribute significantly to their education. This is the case for some printed forms of information, particularly periodicals, which generally are not available for loan. There is also limited access to spoken texts, particularly informal conversations with other students involved in the course. Though the importance of these texts is often discounted because they appear only tangentially related to the delivery of the content, it will be argued later that they are part of the wider web of texts which students may find a useful resource.

The consideration of language in open and distance education so far has focused on the need for consideration of both the broad and specific socio-cultural aspects as well as the textual histories of the participants. We now include another layer in the consideration – the notion of discourse.

Discourse

Participants in any language encounter are able to communicate only if they can draw on common perspectives from their socio-cultural and textual backgrounds. These perspectives are part of complex networks of understandings and values which have their outworking in generalised sets of social practices and which are known as social institutions. Individual linguistic encounters are, therefore, not events in isolation. They can only be understood in relation to much broader cultural and social factors, particularly the social practices of which they are a part.

There are many social institutions within society – education, the family, the justices system, politics, the conservation movement, sexism, racism, religion, authority, feminism, nationalism, health care -- to name just a few. Each has an identified 'territory' – although institutions are always trying to colonise other areas as Kress (1985, p. 7) points out – and each has its own distinct ways of 'talking' about this territory. Kress (1985, p. 7) defines these 'systematically-organised' sets of statements which give expression to the meanings and values of an institution as discourses.

Discourses include the texts themselves as well as the social processes which produce the text and enable its interpretation (Fairclough 1989, p. 25). Texts comprise particular lexical items (content words such as 'teacher', 'school' or 'discipline') and grammatical items (relational words such as 'in', 'is' or 'the '). Together they produce patterns of language which are identifiable as giving expression to the meaning and social practices of a particular institution.

Within an institution there is a range of forms of expression associated with social practices. For example, in tertiary education enrolment, lectures, teaching packages, informal conversation, orientation camps and programs, and staff development activities are all part of the social practice. Each has a recognizable form of language (as well as other activities) as part of the social practice.

Language issues in social practice

The language in these practices is a complex issue. Firstly, the discourse identifies particular roles and their 'appropriate' language, with specific participants. As part of learning the language in a culture, the range of roles and the language associated with those roles are also learned. This makes it possible to move between roles, for example, to be a teacher in one context and a student in another.

Secondly, a text always consists of a number of overlapping and intersecting discourses. The ideas are often in conflict. Indeed the task of the text is often to resolve or suppress the conflicting discourses. Kress maintains (1985, p. 12) that the difference between and within discourses is the 'motor that produces texts'. Differences in power, knowledge, information, age, class, and gender are particularly relevant to the institution of education. To understand text in this way is to see the production and interpretation of texts as political endeavour.

The point here is that the communication is not neutral. Texts are arenas for exercising power within social relationships. Wallace (1992, p. 60) identifies these two aspects as propositional knowledge (about the topic) and ideological assumptions (about the social relations and differences in power). Though the propositional knowledge is often the focus of educational activity, it is always accompanied by the ideological aspects which arise out of value positions of the various discourses operating. In educational contexts this is a crucial point.

To really understand what is occurring in the text, then we need to consider more 'than just the propositional aspects. We also need to consider the ideological aspects of the exchange. Language is, then, one very powerful means of constructing and maintaining power differentials in society. Fairclough (1989, p. 1) maintains that there is 'Widespread underestimation of the significance of language in the production, maintenance, and change of social relations of power'. These complex perspectives are coded in the forms of language used. They include aspects such as the status of individuals indicated by such issues as who has the power to initiate, terminate or interrupt the exchange, what counts as valid knowledge and how knowledge is validated.

For open and distance education, issues fall into two categories. Firstly, there are considerations about being successful within the complexity of these intersecting and competing discourses. Secondly, there are considerations about the ideology which comes packaged (invisibly) with the propositional aspects of the topic under consideration. Though these are fundamentally related, we will now consider each of these in turn.

Learning to be successful in the discourses of open and distance education

One of the great attractions of open and distance education is its presumed capacity to increase access and equity by removing some of the barriers to participation (such as attendance). There is an assumption that

this increased access will result in increased success for those traditionally not involved in higher education.

Indeed, the Australian government has recently established the Open Learning Agency (which uses distance delivery methods) to increase access to tertiary study. Though the importance of enhancing access is acknowledged, it is argued here that success is determined by a great deal more than access. Success will only occur if students learn to operate within the discourses of (open and distance) education.

Kress (1985, p. 1) points out that communicating in an educational context is similar to any other social situation. A participant must learn to operate within the discourses at work in the (spoken or written) text of the field. In a real sense it is not possible to operate, as an individual. All participants, whether they are engaged in distance education or conventional face-to-face learning situations, are located in a network of social relations, in specific places in a social structure' (Kress.1985,p.5). Membership within this "network" requires participants to act in particular ways if they are to be successful. The various discourses are not evenly distributed throughout society. Access to them is a matter of personal history. Kress (1985, p.11) makes the point.

For any member of a social group discursive multiplicity, contestation, and difference is both a description of their history and an account of their present social position at any moment. The individuals' history is composed of the experience of a range of discourses, passing through the intimate relations of the family and its discourses of authority, gender, morality, religion, politics; into school and its discourses of knowledge, science, authority, aesthetics; to work and adulthood. The discursive history of each individual therefore bears the traces of the discourses associated with the social places which that individual has occupied and experienced. These form, like sedimentary layers, the linguistic experience and potential of the speaker. It can be seen how individuals from similar positions, with similar social histories, have significantly similar linguistic experiences and therefore have quite similar forms of language available to them. At the same *time*, to the extent that discursive histories of individuals differ – a situation more, likely than that of total congruence for many members of social groups – their experience of language, their positioning towards the linguistic system, differ. Added to this is the present social position of an individual: depending on their place in social institutions – work/profession, leisure, family, political affiliation, sexual relations – their present experiences of discourses will differ.

Successful participation in social situations (including education) is determined to a significant extent on whether the language demands of the situation are met. Varying discursive history is, therefore, a significant issue in education. Because certain sectors of the community having less familiarity with, or access to, the discourses of the institution of education are in a less favourable position to succeed. Access in education must therefore be concerned as much with providing opportunities for learning the appropriate discourses as it is with flexible delivery and special entry provisions.

Christie (1985, p.23) goes so far as to say that children's (and arguably adults' as well) failure educationally is frequently because they function with different understandings and perceptions from those of their teachers, and thus use language differently. We learn language in

order to mean. How we mean is very much a matter of experience and opportunity: a matter of the kind of discourse we have learned to handle and of the associated values and behaviour we have learned to control.

Ideological considerations

Though it is clear that those enrolling in courses of study are concerned with the propositional content (that is, the topic), it is also clear that this content comes organised around an ideological framework (that is, the social relations and differences in power). Disentangling the two is not possible. There are particular issues here for all non-dominant social groups particularly those based on gender, race and class.

In the context of specific propositional knowledge, particular social values are implicitly promoted. It is the implicit nature of this that is the concern.

For example, in a subject such as management, to what extent are the principles based on western, male and middle class perspectives of the world? How would the body of knowledge be different if it were to be seriously inclusive of the positions of other social groups? The issue here is not merely one of the lesser likelihood of success of students from outside the dominant groups. Rather it is the construction and maintenance of particular value positions in silent unproblematic ways. These values have their outworking in certain kinds of social action which devalue or undervalue the contributions and perspectives of the less dominant groups.

Though this is an issue for all education, courses delivered by open and distance methods are particularly problematic. The highly industrialised nature of the processes, including the potential for wide distribution, means that courses can be delivered to large numbers of people over a geographically dispersed area, across national and cultural, boundaries. There are particular issues for cross-cultural contexts where learning package developed for western situations are seen as efficient ways of educating large numbers of people in non-western countries (Guy 1990).

Wallace (1992, p; 61) argues that students need to be specifically and explicitly guided through the ideological context as well as the propositional knowledge of the discourses. The purpose of this is to make the value positions visible and problematic so that students see the potential for reconstruction on the basis of other value positions. This kind of ideological consideration, known as the critical approach, is widely accepted across all education sectors and modes of delivery (Fairclough 1992; Brookfield 1987; Evans & Nation 1989).

An interesting example of the ideology at work in discourses is in the conflict generated by the notion of 'empowerment' in higher institutions. There continues to be (and rightly so) considerable attempts to break down the hierarchical barriers between teaching staff and students. Symmetrical power relations are far from being achieved, however.

No matter how much individuals may ascribe to this philosophy, there comes a point (ultimately assessment) where it collapses. The reality is that the power differentials between students and teaching staff are difficult to change because they are part of very stable institutional networks which are embedded in and dependent on other social practices. It is not just the personal preference of individual academic staff which keeps the power differential in place or can remove it. It is the entire weight of the social institution of education and its place in wider society,

which is realised in individual institutional policy and practice. Kemmis (in Modra 1991 p. 21), Ellsworth (1991) and Allen (1992) bring interesting perspectives to this debate.

Reading position

One of the major considerations in a critical approach is the notion of reading position. Because discourses are ways of talking about the world from particular value perspectives, the reader or listener is always 'positioned' by the text (Kress 1985, p. 33). There is an implied 'ideal' subject in mind when the text is produced; and the reader or listener is constrained by the text to take up that position. Induction into a field of study also entails induction into the subject positions of the field. In sexist discourse, for example, women are positioned as inferior to men, in racist discourse certain racial groups are positioned as inferior to other, and in educational discourse teachers are positioned as the 'Knowers' — and students as those 'needing to know'.

Teachers have a particular responsibility in this respect. Since there are no neutral discourses it is important for teachers to be open about the ideology driving the discourses in their field — and to consciously critique them with respect to the range of social and cultural perspectives.

Clearly locating the 'speaking position' within the range of possible positions which exist is important to provide a balanced perspective. Readers and listeners are not competent to take up the position presented in a text, although in some circumstances, such as in assessment, there may be significant incentives to do so! Indeed, learning to 'see through' the position stated, to 'resist' by seeing other possible positions, and, to apply a critical stance is a major aim in education.

In education generally — and in open and distance education in particular — the consideration of positioning within discourse raises some major issues. How far, or in what way can a student 'resist' the positioning of a text and not be disadvantaged in the assessment outcome? To what extent does the separation of students in open and distance education situations affect their capacity to challenge repressive teaching-learning arrangements or other unreasonable practices? How can learning packages open students up to the various ideological perspectives rather than lock them into particular (albeit defensible) positions? How can student interaction be facilitated in learning at a distance?

With these understandings of discourse in mind, two issues, critical field literacy and general academic discourses will now be considered.

Critical field literacy

It has been argued so far that language plays a fundamental role in learning a field of study; and that one aspect of the language is the value positions particular to the field. A field of study is not neutral: it consists of competing discourses which reflect varying beliefs and values. An example of this is the topic of land management. Depending on the field in which it is located (real estate, environmental management, aboriginal studies, agricultural science), it will have widely divergent positions on issues such as: the major concepts for consideration, notions of validity, the accepted authorities, and best practice.

These differences will be seen in the language used to teach the topic within each field. These include the specific lexical elements and

grammatical relationships, ways of expressing the power relationship between participants and the appropriate generic forms (patterns of larger texts) used in the field: In the above example, oral forms may predominate in some contexts and written forms in others.

Learning a particular subject or field; then, needs to include learning the range of language competencies specific to that field. The ideas of a field cannot be separated from the language which constructs it: to learn about a field is to learn the language of the field. This involves an induction into the discourses (both propositional and ideological aspects) that operate within the field and includes a wide range of language experiences from very informal conversation to highly controlled written language. Learning a field is, therefore, a critical activity. That is, it involves necessarily the processes of critique. The varying ideological aspects of the field need to be considered explicitly so that students can understand the issue from varying perspectives (including the values that support them) both internal and external to their field.

The aim is towards what might be called critical field literacy: a critical knowledge of the ideas of the field and the ways in which that particular field expresses those ideas. Being able to produce and interpret texts in a particular field depends on knowing how to 'hear' and 'speak', 'read' and 'write' within the discourses of the field - and to do this in ways which take into account (and perhaps challenge) the ideological basis of those ideas.

General academic discourses

Being a student or a teacher in an educational institution involves more than knowledge of the field being studied. The more general academic discourses implicit in any institutional context are an issue.

For students this is not a minor matter. Learning how the 'system' works involves acquiring a great deal of information about the administration of the educational environment, using resources such as the library and computer, how to relate to the various staff, and how to think, write and speak in ways appropriate to the particular educational setting. Students gain these kinds of understanding in a number of ways. Many have access through the day to day contact with friends (including fellow students), colleagues and family who have been students in similar programs or educational institutions. In on-campus situations, much of this is not taught in systematic ways, but is 'picked up' as part of the informal interaction which occurs, particularly among students.

For distance education students these issues can be a particular problem. Being separated from the student body means one major source of information is not available. It is important, therefore, that the general academic discourses, including the roles associated with them, be addressed explicitly. In open and distance education contexts, this is usually achieved through the provision of clear statements (for example, academic expectations), and the provision of specific resources (for example, support systems) and information on how to access them. These issues are often dealt with by way of: pre-entry counselling packages, orientation packages and programs, study skills information, handbooks and staff directories, academic counselling facilities, residencies and school camps.

In open and distance education there is an added level of complexity. The usual understanding about being a student is based on the face-to-

face experience. By far the majority of students have had their first and most extensive educational experiences face-to-face. The expectations are known, to some extent at least, and the language skills already developed are aligned with the face-to-face situational context. In a very real sense, open or distance students need to learn the ways (including the linguistic skills) to operate effectively.

Linguistic issues in open and distance education

There are two major linguistic issues here:

- the move from spoken to written language as the primary form of delivery, and
- the linguistic implications of the change from a group to an individual student context.

The first of these, the differences between spoken and written language includes the characteristics of spoken and written forms of language such as the level of abstraction, and the potential for spontaneity, immediacy, retrievability and reflection. There are significant implications for teaching and learning because the forms vary in their potential to construct learning experiences. These characteristics have been dealt with in some detail.

Individual context of the student

At this point we want to focus on the second issue: the individual context of the student and the implications this may have in terms of the discourses available. The individual nature of open and distance learning results in some restriction in the discourses available to students. The most obvious of these is the limited access students have to each other. This is not to say all students see this limitation as a disadvantage: indeed, some choose to study through open or distance courses because they see this restriction as a benefit!

Student discourses have the potential to make contributions to the learning experience in respect to both propositional and ideological aspects. In terms of the propositional content, these discourses are another source of information about both the field of study and the general culture of the organisation. But more importantly, this information is embedded in an ideological framework in which the power relations are symmetrical. Students can explore the various propositional aspects without a (perceived) potential for interference from asymmetrical student/teacher relationships.

In open and distance education facilitation this kind of interaction presents particular challenges. Circulating the names of students in particular subjects of courses, promoting student-run support groups, providing access to Email facilities and organising student-run teleconferences are examples of ways of facilitating this kind of interaction.

Student associations also have a significant role to play in facilitating student/student dialogue. This theme is taken up by some papers in Voices of Experience Conference 1992, edited by Julie Hayford, in which a number of papers address a wide range of services that are being offered through student organisations.

Like students, teachers need to grapple with two types of discourses. The discourse of the field is the area of expertise of the teacher and it needs to be constantly reconsidered as the knowledge base develops. It is a significant issue because of the enormous volumes of knowledge being created and the blurring of the traditional edges of the disciplines. This is an issue for all forms of educational delivery.

Teaching discourse in open and distance education

With respect to the discourses of teaching, the issues are of a different order. The success of an educational experience depends to a significant extent on the teaching and learning arrangements organised by the teacher. Knowing the field is only part of the story; being able to present the content of the field in ways that facilitate others to reconstruct the intended understandings is the other.

Earlier in this section we considered at some length the semiotic school of communication. The background of the interpreter of the text was considered to be a fundamental consideration in communication. The view presented was that in teaching a particular field, there needs to be an explicit and critical presentation of the propositional and ideological aspects of the field. The task of teaching has, therefore, two foci:

- the topic being considered
- the students with whom it is under consideration.

That is, teachers teach a particular field to a specific group of students. The focus on students is a particular concern in the university sector within Australia where, traditionally, the field of study rather than proficiency in teaching has been the focus of lecturer expertise. There are indications that this is of widespread concern because of federal government initiatives on the quality of teaching and learning.

More particularly, this is an issue in open and distance education across the sectors. Even for those with acknowledged expertise in face-to-face contexts, teaching at a distance introduces a new range of professional demands.

Open and distance education experiences are dependent on particular forms of communication. The planning, preparation and presentation of the learning package – the specification of the content, the selection of the media, the identification of communication opportunities, the integration of learning activities into the text, and the determination of assessment - involve a wide range of language and communication skills often requiring collaboration with editors, media experts and instructional designers/course developers/consultants. To ignore these highly specific demands on staff who teach in this way is to minimise both the expertise of those who are proficient, as well as the staff development issues for those who need to acquire these skills.

In deciding on the teaching arrangements of a particular subject there are a number of important considerations. The first is that there needs to be a clear understanding about the nature of the teaching enterprise. Teaching involves facilitating students to learn, to construct new understandings. It is geared to the neophyte, not the expert. Many distance educators in universities are justifiably accused of writing for their peers rather than the student group. A teaching package is constructed very differently from an article written for an expert audience.

Secondly, the content to be taught needs to be identified and clarified. This is often a relatively simple matter because it is usually specified (to some extent) in a curriculum document and is the field of expertise of the teacher.

Thirdly, the characteristics of the student body need to be identified. The topic is not just being taught; it is being taught to an identifiable cohort of people who have certain backgrounds and textual histories.

Finally, the teaching and learning arrangements should be seen to reflect the two foci mentioned above: the topic under consideration and the students to whom it is being taught. The discourses of the field of study and the teaching discourse are intertwined to form the text. The inclusion of the pedagogical considerations influence the text in a number of fundamental ways (Holmberg 1989, p.14).

The characteristics of the audience become a major influence on the organisation of the text. Firstly, there is an explicit effort to relate the new knowledge to the student group – gender, race, class, and their educational experiences. The flow of the document is carried as much by the needs of the student body as the demands of the field. In this respect, the order of the presentation of ideas may change from group to group or particular devices such as ‘exercises’ and ‘reflections’ may be included to assist the reader to make the intended connections.

Secondly, intertextuality is an important consideration. The relationship of the current study to other texts in the field needs to be clearly articulated (Wallace 1992, p.67; Halliday 1985, p. 47). What ‘texts’ (either written or spoken) about the field or being a student are assumed? Is it expected that students will have ready access to particular written texts such as journals or encyclopaedias? Is the ideological ‘terrain’ of the written texts in the field clearly identified? Are the assumed texts identified so that students can access them if they need to (re) consider them. Are there clear pathways into the wider field and systematic guidance for students to extend their learning by pursuing areas of interest?

Thirdly, the language becomes more personal. In teaching/learning situations the people involved are given some prominence in the text by making direct reference to them.

Finally, the language tends to become more like spoken language, much more accessible and informal.

Though the above principles are acknowledged in the distance education literature, Evans (1989) laments the lack of consideration generally for such pedagogical issues. Instead, he claims, the discourse of the field dominates.

Conclusion

The position of this paper is that distance education is a social practice and that language is integral to that practice. In order to improve practice it is necessary to understand how language contributes to the construction of the educational experience.

Firstly, it was argued that the most useful way of understanding education is based on a semiotic view of communication, what Christie (1985, p. 29) calls ‘sociolinguistic theory of learning’. Language has a particular role in the education process because it is through language that the meanings fundamental to the learning activity are constructed (Christie 1990, p. 8). That is, the most useful way to understand learning

in any mode is by the active reconstruction of the message by the receiver rather than by the transmission of messages. The reconstruction of meaning is fundamentally linked to the context in which the language occurs and to other texts on which the language draws.

Secondly, the point was made that the context out of which the text emerges is not neutral. The social and cultural values of the context are encoded in the language of the text. These social values are not haphazard but systematically organised according to particular patterns of knowledge and relationships. These are referred to as social institutions. Social institutions express meaning in specific ways known as discourses. Making meaning (either producing or interpreting texts) in a particular social situation depends on being able to operate within these discourses. Familiarity with the various discourses is not evenly distributed throughout the population and depends on the discursive history of the individual. This raises issues of access and success as well as other ideologically based concerns.

Thirdly, teaching and learning was discussed with respect to the discourses with which students and teachers need to be familiar in order to be successful participants in the social practices of open and distance education. This includes the specific consideration of propositional and ideological aspects of the field specific discourses as well as the more general academic discourses.

Finally, the importance of teaching discourses in the construction of the learning experience was advocated. Two teaching and learning foci were identified: considerations of the field and considerations of the student. To ignore the cultural, social, and textual considerations of the students is to put in jeopardy the likely success of particular groups of students. It is likely that these students will arrive at quite different interpretations of the educational texts than the one intended by the producer (teacher) of the text.

This has some major (short term and potentially long term) consequences. Failure to gain a particular qualification may well result in exclusion from a particular sector of society, with all the social implications that exclusion brings. Students are particularly vulnerable in this regard because of the somewhat powerless position they occupy in the educational discourse.

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Unit 6 DISTANCE EDUCATION IN DEVELOPING COUNTRIES: PROSPECTS AND CHALLENGES

P.R. Ramanujam (1997)

***Editor's note:** This paper by P.R. Ramanujam was first presented at the 18th world conference of the International Council for Distance Education (ICDE) at Pennstate University, USA, in June 1997. Ramanujam raises a number of issues related to the practice of distance education, more particularly of adopting and adapting the relevant models for developing countries. The issues raised and arguments advanced here may generate a wider debate on the theories and practices of distance education which are increasingly subjected to scrutiny all over the world. We expect this paper to be of interest to not only the, distance learners but also the practitioners and theoreticians of distance education.*

A Global View

The phenomenal growth of distance and open learning systems all over the world has drastically changed the educational scenario everywhere today. The conventional notions about teaching-learning are being replaced very fast by new ideas and strategies, thanks to the revolutionary changes continuously taking place in the media and communication. Since the concept of education as investment is also steadily gaining ground, even the poorest countries are slowly turning their attention to the educational needs of their respective populations in order to survive and develop. Distance education has been viewed by many as a viable strategy to achieve the national educational goals quickly and at low costs.

At present, there are 1117 distance and open learning institutions of different types and sizes located in 107 countries. The number of distance learners is approximately 50 million at the higher education level, which is expected to reach 90 million by 2000 A.D and 120 million by 2025 A.D (Dhanarajan 1996) as per the available recorded data pertaining mostly to institutions funded and/or recognized by the governments and the public bodies. If we add to these the private and unregistered institutions and the students learning through them, the figures will be still higher.

In India alone as per the latest data available in 1995, there were about 57 distance teaching units called Correspondence/Distance Education Departments located within conventional universities, 7 State Open Universities and 1 National Open University (AIU Handbook 1995). Over 1,000,000 students would be on the rolls of these institutions in 1999, and the number of State open universities would have gone up. At the school level, the National Open School offers education to about 60,000 students spread across the country (Chakraborty K, 1994). Besides these, distance teaching programmes are offered by some private institutions and television companies (e.g. ZED programmes by Zee TV, the management programmes offered by Jain TV, Sun TV and others). Roughly about 16% of the student population at the higher education level is already taken care of by the correspondence/distance/open learning systems.

The expansion of the distance and open learning system in other countries both developed and developing, has established beyond any doubt the fact that this system is going to play a very important role in the 21st century. The present dominance of campus based higher education may become a thing of the past perhaps by the middle of the next century, if not earlier than that. Possibly the merger of the two systems may take place faster than expected, and it may lead to new structures of educational institutions and new strategies which may be used by both campus based and distance mode institutions. If that is the trend, then, what will be the implications of it for the developing countries?

The implications could be many, but the most important of them will be for the economy, sovereignty and the culture of the people of the developing world. How the growth of distance and open learning will impact the areas seemingly unrelated to education in the developing nations can be accounted for by analysing the nature of demands made by the system on the resources of a country, the curriculum, methodology and the managerial process as a whole. Besides these, the cost factor which is usually assumed to be cheaper in the distance education system plays a major role in promoting the system in place of face to face campus based education.

Distance Education in the Developed World

Distance education scenario in the developed world presents a comparatively bright and promising picture for the 21st century. The Open University, UK for example, has become the country's largest university which now plays a central role in the credit transfer and award validation mechanisms that knit British higher education and training together (John Daniel, 1995). In general, the European Distance Education Network (EDEN) shows that the European countries have firmly recognised the Distance and Open Learning system as part of their educational enterprise. North America, Australia and Japan have developed their own distance teaching-learning systems in many forms flexible enough to cater to the varied needs of their different learner clientele (Sewart 1995). Advancement in communication devices which are widely used by the distance and open learning institutions in the developed countries make the individualised teaching-learning possible there. Besides, the well established academic traditions and a wider provision for basic primary and secondary education have created a strong base for extending higher, vocational and unconventional educational programmes to those segments of adult populations who have limited or no access to campus based face-to-face education in the different areas at the tertiary level.

A brief overview of the prominent features of distance and open learning scenario in some of the advanced countries would give us a better understanding of the situation in those countries. For example, in the United Kingdom, Germany, France, Norway, Sweden, Spain, the United States of America, Canada, Japan and Australia the distance/open learning systems operate very effectively for the following reasons:

- Adult learners with an appreciable degree of basic/primary/secondary education;
- Medium of instruction is mostly through the mother tongue of the learner
- technology and communication facilities

- Availability and accessibility of well -equipped, advanced institutions with clear vision and mission statements;
- Adequate resource mobilisation;
- Thoughtful and committed academic leadership;
- Flexible and need based curriculum;
- Committed and/or trained, qualified staff;
- Thorough planning and implementation of educational programmes;
- Adequate and efficient student support services;
- Continuous and systematic monitoring, review and evaluation; and
- Political will (which is crucial) to back up the projects and institutions.

Historically, the advanced countries in the West and also Japan had developed a very good network of communication systems. In the 19th century, locomotives, road transport, steam navigation, telegraphs and telephones speeded up the process of transportation and communication in Europe. The industrial revolution made it necessary for the nations to improve transport to carry out their economic, trading, commercial and military activities successfully. As a byproduct of these, experiments with new ways of teaching-learning started, though slowly and on a limited scale. Humanistic education was still struggling against the centuries old sectarian-religious dogmas in the 19th century when the campus based classroom teaching was emerging as the dominant mode. Isaac Pitman, in a way planted the seed of the modern correspondence education when he started offering postal tuition on short-hand in 1840 in Britain. Pitman would not have imagined that after a century his small educational venture would grow into a significant mode of education spread in many forms in the United States of America, Australia, Western Europe and Canada in the late nineteenth and early twentieth centuries. Since campus-based, classroom teaching was confined to the upper classes and the middle classes in the industrialised nations, the forceful demand for education from the working classes and other deprived sections of the society had to be met through some means. After the second world war, the demand was felt all the more urgently because the issue had a potential to disturb, if not overthrow the existing social order, and the ruling classes could ill afford such an eventuality that would lead to social unrest.

The concept of the 'welfare state' was gaining importance, presumably with the approval of the ruling classes, through out western Europe in order to contain the spread of social revolutions which had already covered one third of the globe in the late 1940s. As a part of the welfare state concept, new ways of meeting the increasing educational demands of the people were also to be sought. At the higher educational level, the open university system became the flagship to meet the challenge.

The history of the establishment of the Open University in the United Kingdom in 1969 makes it abundantly clear that the labour government's policy to expand higher education through the Open University was the least 'revolutionary' in the classical sense of the phrase. Nevertheless the project had to be pushed through with skill and determination because of the perceived social threat in it by the conservatives (Perry 1976). It is a different matter that later on, the Thatcherite conservatives too found it useful to ward off dangers from the lower classes demanding more of their share in the educational domain. The Open University is an example

of how a 'harmless palliative' can be projected as a revolutionary measure by the left of the centre politicians which in turn would be perceived as a threat and therefore opposed by the die hard conservatives. Neither of the stances did substantially alter the role of open universities and distance education, as is evidenced by the experience of many countries in the advanced world.

Educational Concerns of the Developing World

An analysis of the socio-cultural contexts in which the terms 'distance' and 'open' education were originally coined and used would show that the advanced western countries conceived distance education concepts on the basis of their technological growth, cultural heritage and academic traditions. Not that there are no conflicts among the educational philosophies of western countries with regard to distance education. The ongoing debates in the developed world on the sociological and pedagogic implications of technology based teaching-learning, the philosophical principles which shape the distance learning curricula, the ideological biases in course contents, the cost factor, marketability to educational enterprises and other issues have much relevance of distance education in the developing world. However, the level of the debates as such shows that the concerns of distance educators in the developing countries are more at the basic level. The concerns are such as the following:

- i) Can some sort of education reach the people?
- ii) Can the shrinking educational budgets meet the minimum infrastructural requirements?
- iii) Will there be an appreciable degree of success in the course completion rates?
- iv) Are there job opportunities for those who complete their studies through distance mode?
- v) Are there enough arrangements to provide education to those who want it, irrespective of its use value?

These and similar issues dominate the thinking of the policy makers and administrators in the developing countries.

Surveying the distance education scenario in a number of developing countries in Asia, Africa and Latin America, (Manjulika and Reddy: 1996) observe the following common features:

- Inadequate finances
- Poor communicational and infrastructural facilities
- Absence of clear governmental policies
- Limited use of audio-visual media
- Shortage of experts to develop multimedia courses
- Lack of financial and academic autonomy for distance-teaching institutions
- Low social and academic status of distance education because of quality issues.

Individual studies on the specific problems of developing countries have been studied by a number researchers (See Arger 1990; Holmberg 1989, Peter Smith et al 1987). However, the conclusions and generalisations which are to be derived from the specific contexts are very significant for this discussion. What appears to be quite obvious from the point of view of academic research becomes important when looked at from the political, cultural and sociological angles of the current distance education scenario.

Some research studies have posed the questions related to distance education in the developing countries frankly and directly (Arger 1993; Villoroel 1995; Oliveira and Rumble 1991). Others have given a descriptive analysis of the needs, issues, possibilities, challenges, etc. of the developing countries practicing distance education. But the descriptive details in themselves are significant. The overall aims of distance education curricula, the characteristic features of the students clientele, the infrastructural facilities such as buildings, electricity, postal services, transport, telecommunications, the television - radio network etc. and the human resources to use the facilities, especially the media technology when made available, are the key factors which must engage the attention of distance educators in the developing world. These factors have utmost significance in the context of proposing distance education as the viable alternative strategy to tackle the educational problems at the national levels in many developing countries. But what does actually happen in the developing world?

The Open University and the Developing World

The success of the British Open-University in the seventies obviously acted' as the inspiration for policy makers in many developing countries to establish their own open universities or distance teaching units. In India, for example, the thinking of establishing an open university at the national level had been there for a decade before it actually materialized in 1985 with the establishment of Indira Gandhi National Open University (IGNOU) (Parthasarthy Committee Report 1974). Although the Andhra Pradesh Open University (now Dr. B.R. Ambedkar Open University) was established in 1982, the blue print prepared for a full fledged open university was given some kind of practical shape only in the establishment of IGNOU which is broadly modelled after the Open University, UK. In 1974, i.e., five years after the OUUK came into existence, Pakistan established the Allama Iqbal Open University (AIOU) at Islamabad. The AIOU has been guided by the consultants from the UK from its inception.

Thailand established its two major open universities Sukhothai. Thammathirat Open University (STOU) and Ramkamhaeng University (RU) in 1978 and 1971 respectively: Although Thailand too got the inspiration from the success story of the OUUK, it has deviated a lot in adapting the open university system to suit its local needs. Sri Lanka (1981) Bangladesh (1988) Malaysia (1980) Hongkong (1990) Singapore (1991) and South Korea (1983) are some of other important examples of countries having drawn inspiration from the British Open University.

However, the British Open University itself was the result of Herald Wilson's inspiration that he got from the former USSR when he visited it in 1956 and saw the tremendous success of distance education of a different sort which was centrally planned and implemented by the Soviet

State to meet the educational demands of the country. The East European countries, the former German Democratic Republic, Cuba, Nicaragua, Zimbabwe and Tanzania are other notable examples which have modelled their educational policies and practices on the basis of the experience of the USSR. In the post-Mao peoples' Republic of China distance education got an impetus through radio and television broadcasting. Central Radio and Television University (CRTVU: 1978) is one of the biggest institutions in the world which provide education to workers who need to update their technical and vocational skills.

Distinction or the Divide?

What really distinguishes the distance education of the developed countries from that of the developing world is the overall aim set for it. In the developed countries the broad aim is to provide education to individuals who need it at different levels with different individual needs. In the developing countries the aim becomes a collective one such as nation building, eradication of illiteracy, rural development, health education women's education tribal education, education of the socially disadvantaged etc., besides the usual academic, technical and vocational programmes. The very magnitude of the aims/goals set before distance education in the developing countries makes the educational operations very complex and demanding. The potential of distance education is stretched too far to meet every educational need which has not been met so far. This has put tremendous pressure on the systems of distance education which are yet to take firm roots.

In one way, distance education is perceived as the solution for all the shortcomings of conventional, face-to-face education in the developing countries. In another way, it is projected as the cost effective, and therefore a cheap way of meeting the demands of education. In the process, too little money is allocated to meet too many educational needs. As a matter of fact, much of the educational crises in the developing world can be traced to the same economic arguments. Because the educational budgets in these countries have been usually small, the standard and the quality of education too have not been high. The spread of literacy and the expansion of education at different levels have suffered precisely because of the meagre allocation made to all the educational projects. This fact is usually ignored by those who criticise the face-to-face education and attribute every educational fiasco to it. If the funding of education is rationalised on a scientific basis, perhaps distance education could meet the demands much faster and more efficiently than the lumberous, rigid and expensive structures of campus based education. In spite of all the possible hurdles, distance education has been spreading rapidly.

There is no reason to believe that the hurdles cannot be overcome. What is really needed is a systematic appraisal of the impact of distance education in the developing countries over the decades to find out the strengths and the weaknesses for the systems as obtaining in many countries. The weaknesses, once identified would persuade the practitioners to go for remedial measures. If remedial measures are not taken consciously with sufficient political will, then, there is every possibility of turning the system into a self-serving agent which may serve the interest of a few individuals but the system as such will not achieve the intended goals of nations and peoples.

Lack of Resources: African Scenario

Paucity of material and human resources has in general affected the practice of distance education in every developing country that has not been able to achieve its educational goals. Here I will present a typical case. Ethiopia started its distance education project in the early 1960s. But it did not have either the necessary infrastructural facilities or the expertise in designing, developing and implementing its educational programme.

During 1962-64 the Distance Education Division (DED) invited an American Dean of the Extension Division of Nebraska University as a consultant to help design the courses to serve the needs of Ethiopia. The American, while doing the 'needful' for Ethiopians, actually imported the secondary level courses from Nebraska, the USA. As one could expect, the courses did not meet the requirements of the students of Ethiopia. After evaluating this unrewarding exercise, the American Dean, and local experts tried to develop courses which would suit the local needs. However, after exploring the 'possibilities' of developing the local need based courses, the attempt, along with the idea was given up because of "lack of resources and expertise in distance education". (Inquay, S. 1992)

Although two staff members of DED had been sent to the National Extension College (NEC) and the International Extension College (IEC), London, to get the necessary training to develop the relevant courses in Ethiopia, on their return the staff members did not make use of their training of whatever kind, because the university which arranged for their training did not encourage them. As a result Ethiopia has not been able to make any headway in establishing a distance education system, nor had it succeeded in creating a good department of distance education either. The Distance Education Division (DED) of Ethiopia is presently "passing through a period of doldrums which seems to be the result of long neglect, under-financing, and under-staffing", besides suffering from lack of good leadership (Inquay, S. 1992)

Ethiopia is an extreme example, but the features of the Ethiopian case are generalisable to describe the situation in many a developing country which does not have the necessary resources and a reasonable degree of expertise.

Kenya, one of the richest countries in Africa, has not been able to articulate its educational needs with a future perspective. As a result, it had not made available sufficient funds and human resources to create a relevant, indigenous model of its own to serve the needs of Kenyan students who otherwise cannot have access to face to face education. In the absence of strong governmental efforts to meet the demands in this area, private and foreign agencies readily step in to take advantage of the opportunities. And that is exactly what has happened in Kenya too.

For many years, private, mainly British correspondence colleges have offered distance education courses to health workers and school teachers in Kenya (Holmberg, 1990). When efforts were made by the State, distance education in Kenya looked up to the future, although a number of factors related to resource mobilisation hamper the development of the system at the national level. Limited electricity supply, poor postal services, expensive equipments used by untrained staff in non-professional way and a large body of untrained teachers create problems for a healthy and faster development of the system. Although competent academics

are available in Kenya, their number appears to be comparatively small and the distribution of this small number of competent people across the distance teaching units may not lead to effective utilisation of their talents because of the generally unprofessional environment which, of course, is not a unique privilege of Kenya alone. Added to these, is the problem of language as a medium of instruction. Although English is one of the two official languages of Kenya playing a dominant role in administration, education, journalism and business, the mastery of English by a majority of Kenyan teachers is regrettably low. Poor mastery of English which is the medium of instruction, slow administrative process and lack of resources inevitably slow down the speed of distance education in Kenya, a country, rich in its oil and natural resources, unlike Ethiopia.

Zambia has made tremendous advancement in distance education in recent years. However, inadequate material and human resources negatively affect the quality of the programmes as well as the learning process. While acknowledging the achievements of distance education in Zambia, Mulenga (1987) identified "some difficulties, particularly in course development and student services which reduce the quality of the distance education offering". Zambia, though a small country as compared to Kenya, Ethiopia and India, can however, boast of greater success in its endeavour to promote distance education because of its rational resource allocation, concern for quality and care for setting achievable goals and proper planning. In general, distance education in African countries suffers from the same malnutrition that impoverishes educational institutions in other developing countries: shortage of resources.

Analysing the trends in teacher education in the third world, Gary Coldwin and Som Naidu (1989) identify population growth and the shrinking resources for primary education as two of the other important reasons for the poor quality of education, including non-availability of trained teachers "particularly in the rural areas where the majority people reside" which make the practical operations difficult and complex. The perennial contradiction in implementing the educational programmes in the developing countries, thus, is that of greater needs of education at every level and the grossly inadequate resources to meet them.

Latin America

Latin America had been struggling at least for two decades till the mid eighties to come to grips with its own problems with respect to deciding on the suitable models of distance education. Rumble (1985) observed the peculiarities of the Latin American situation in the early eighties and noticed doubts being raised by the Latin American educators about the suitability of the British Open University model in the severely under funded, poverty stricken and illiterate nations usually governed by authoritarian regimes. The most significant problems adversely affecting the Latin American distance education have been: shortage of resources to create infrastructural facilities, shortage of trained educational managers to plan and operate a distance education system, and the highly politicised nature of university structures which make innovative educational projects very fragile. Although doubts were expressed about the future of distance education even in the eighties, the concept has taken firm roots and in certain respects it has contributed significantly as a model to the developing world which we shall discuss later.

Theses on Distance Education for the Developing World

After having considered some significant experiences of the practice of distance education in the developing world, one could advance the following theses which may draw the attention of distance educators:

- 1) There are greater perils and dangers involved in blindly copying any western models of distance education than in evolving indigenous models for the developing countries even if the latter meant absence of theory and experience.
- 2) Indigenous models, though very difficult to evolve quickly, once created will have greater relevance and strength than be copied or adopted models.
- 3) It is possible to create a variety of models which will be equally effective in different specific socio economic and cultural contexts irrespective of success models' recommended by the experienced distance educators.
- 4) The future of distance education in the developing countries would depend more on the ability of distance teaching institutions to respond to the specific needs of learners at different levels and less on their resourcefulness to catch up with their counterparts in the developed world.

Let me substantiate the above with some evidence.

Asian Experience

Indonesia offers another classic example of a developing country which got inspiration from the successful western models of distance education but in the practice of distance education got trapped, because of blind adaptation of success models. Indonesia has its strong traditions of teaching-learning, which resemble any other Asiatic academic tradition of respecting the teacher and expecting from him knowledge and wisdom to flow. Besides this reverential treatment of teachers and teaching, the low literacy rate and strong oral traditions do not adequately prepare the teachers as well as the learners to benefit from distance education as practised in the west.

The first obvious mistake that every developing country, including Indonesia, makes is to ignore the ground reality where too many incomparable variables distract the smooth functioning of a model which might have been a success in a developed country. In the context of distance education, the concept and strategies of self-learning have to be applied cautiously and imaginatively. Without the psychological and cultural preparedness of both the teachers and the learners, distance teaching and self-learning will not be successful. The necessary preparedness does not come to them without changing their social, economic and cultural orientation to the extent necessary to receive the concept and adapt it to suit their own conditions. Raden Dunbar (1991) while addressing some of the above mentioned issues in Indonesia observes that the "fundamental cause of distance education failure in Indonesia has been the adoption of western models, without adaptation to suit the acculturised behaviours of Indonesian teachers and learners".

Indonesia has a large population, strong Islamic culture, oral traditions of teaching which hold the teachers with high respect and view learners as 'receivers' of knowledge. It has high population growth rate, low literacy

rate, limited access to sophisticated technology and a fragile democratic polity. Obviously, it cannot be expected to succeed in practising distance education in the way it is done in Europe or North America. Nor can it increase its educational budget to the extent necessary to provide resources for face-to-face education to meet the educational needs of the people entirely. The possible alternative would be the creative adaptation of some successful model of distance education. But Indonesia went for *adoption* rather than *adaptation* when it established its Open University in 1984, the Universitas Terbuka (UT).

The obvious choice of a model for UT was the UK Open University. Naturally the UT's strategies to impart distance education were based on the strategies of UKOU. UT started its activities with a big bang, admitting 60,000 students for its courses in 1984. And in 1990 about 270,000 students enrolled for the various courses of UT. But the success rate of course completion was anything but satisfactory. The University was beset with all kinds of problems and difficulties in carrying out its plan, particularly in the crucial areas of course development and course delivery. The reasons for the unrewarding exercise are not far to seek. (Dunbar, 1991).

Any developing country going in for adopting a foreign, especially a western success model is bound to find itself in a tricky, and difficult situation, if it fails to adapt the model to suit its own specific situation and plan its activities with a strong sense of realism. Because of uncritical enthusiasm, the planners of distance education in the developing world want to do things in their respective countries in the way the western institutions have done and succeeded, forgetting the latter's specific concerns, resources, experience and traditions. This uncritical enthusiasm of the planners of the developing world may have three sources: (i) a genuine lack of understanding about the implications of adopting western models, (ii) a desire to please the political bosses by doing something visible for political and publicity purposes and/or (iii) the vested interests of some key players who deliberately do things which would suit their personal interest rather than the interests of the institution and the learners. One or all the above can be seen operating behind the planning and execution of distance education projects in the developing countries. Indonesia too must have had its share of this sad experience.

The planners of UT indeed heavily depended on the western models and the western consultants from the UK, Canada and America. UT's experience in adopting the UKOU strategies in course development and course delivery, though sadly disappointing, has a few valuable lessons to offer to the developing countries which would like to start their own distance teaching. Commenting on the failure of the strategies adopted by the UT for its course development and delivery, Dunbar (1991) says:

"The assumption appears to have been that Indonesian distance teachers and learners would behave in much the same way as their western counterparts when faced with teaching and learning via mediation, must eventually be mastering the technique of education without a direct and continuous personal relationship with a teacher."

The assumption was obviously proved wrong, because of the fundamental variation in culture of teaching-learning between the country which created the model and the country which adopted it. Besides the cultural implications, one could easily discern the other possible reasons: variations in the infrastructure facility, access to technology and

provision for a strong student support service". A team of evaluators from UNESCO-ICDE studied the myriad problems faced by the UT in 1990. Summarising the situation at the UT the report by the UNESCO-ICDE team says:

"UT would appear to be beset by a daunting number of problems of a fundamental nature that will require some dramatic, if not traumatic, changes to be made before it can be accepted by the community as a viable alternative to traditional forms of education. The education philosophy and the current organisational arrangements that have been designed to support it are clearly not working".

Similar discoveries will be made sooner or later about the non-working models and strategies adopted by many other developing countries, including India. The most important lesson from these experiences for the developing world is that the blind copying of any successful western model of distance education would not work in the developing world but, which is much more alarming, would discredit the very philosophy of distance education in the situations dominated by traditional notions of education, and thus hamper its growth for a long time to come.

Strengths of indigenous models

As a refreshing contrast to the experience of Indonesia and some other developing countries, the Latin American experience is one of self confidence and independent thinking. Although many Latin American experiments with distance education had to meet with disappointing experiences and failures even, the grim determination with which some of the Latin American distance teaching institutions have struggled to establish themselves as relevant models in their own right and in their own soil must inspire other parts of the developing world in a positive way. It took about 10-15 years for some leading institutions in Latin America to make their presence felt but the efforts were worth making. Oliveira and Rumble (1991) in their review of distance education in Latin America recognise a number of strengths and also point out the weaknesses and constraints of the system of distance education.

The major strength of distance education in Latin America is to be seen in that it "has developed its own forms of distance education to confront realities and problems which are peculiar to the region" (Oliveira and Rumble, 1991). The indigenous forms of distance education, school-equivalency programmes, post secondary inservice teacher education, university extension education, mass higher education, rural community education, and many developmental programmes through distance teaching. The progress in these areas had, of course, been made, despite stiff resistance from the conservative circle of academics and policy makers as also the problems can be used by paucity of resources, experience etc, which lead to the collapse of a number of programmes and projects. But the success of indigenous models outshines the failures precisely because of the Latin American determination to find its own solutions to its problems and resist the temptation to imitate the European and North American models blindly. In other words; inspite of hardships and some failures, Latin American region has succeeded in creating the suitable forms of distance education through experiment and adaptation rather than adoption of successful models alien to its own reality. This creativity and adaptation can be observed in a number of aspects of the system, including the use of pedagogy and technology. Oliveira and Rumble observe:

The successful transfer of the concept rested in part on the use of communications technologies which already existed in the region and in part on the decision by the planners to adopt an essentially conservative approach to academic policy, in marked contrast to the British Model...

...In general, the regional development of distance education at the higher education level have been a product of the Latin American situation and not of externally imported technologies, policies and structures.

No wonder, the Latin American region has been able to show to the world such successful institutions as UNA of Venezuela and UNED of Costa Rica. The mass education programmes organised for the poor peasants by Paulo Freire in Columbia has inspired a number of other countries in the region. The potential of radio had been particularly appreciated by the Latin American institutions in Columbia, Brazil and Nicaragua. Nicaragua's mass educational campaigns in 1979 and the early 1980s soon after the Sandinista revolution were remarkable successes. Cuba has been using distance education as an ideal complement to its face-to-face education system since 1978. From among the Asian countries one could cite Thailand and China as two worthy examples of self-confidence and independent approach in practising distance education in the forms and ways suitable to their respective situations.

From the above survey and analysis of the current practices of distance education in many parts of the world, it should be possible to draw certain conclusions which would have some lessons for the developing countries.

- Distance education will emerge as a major system in the developing world too in the years to come.
- The present practice of adopting the western models will not work in the developing world because of incompatible cultural variations and technological gaps.
- Any attempt to transplant western models in the developing countries will hamper the growth of the system by making it permanently dependent on western experts, technology and teaching-learning strategies.
- There is an urgency to rethink about the current strategies of course development and delivery in all the countries which, for some reason or other, have based their strategies on the western, particularly the British model.
- The use of technology needs to be decided on the basis of its access to institutions and learners in the developing countries.
- It is not always necessary to have sophisticated technology to establish successful distance education models in the developing countries.
- Instead of competing with the western models which need heavy investment and high technology, the developing countries should make use of their available resources to meet their specific educational demands.

- To make use of the available resources, the developing countries must develop self-confidence and acquire the ability to think independently when they plan and execute their distance education programmes.
- In order to acquire self-confidence and independent thinking, distance educators and policy makers must first study the history of distance education in the advanced countries and relate it to the social and political history of the relevant countries.
- The fixation about the successful western models and the obsession about the inevitability of sophisticated technology must be overcome and a fresh look must be taken at the need and feasibility aspects of large scale use of technology for educational purposes.
- If and when sophisticated technology is acquired by institutions in the developing countries, the use of it must be considered on the basis of its usability and accessibility from the institutional and students points of view.
- Once indigenous models take firm roots in the native soils of the developing countries, they would gradually emerge as competitors to the western models.
- If the indigenous models fail to take roots, in the era of globalization, educational systems of the developing countries also will soon face the same fate faced by their economic and political institutions: invisible take over by the multinational and transnational companies backed by the political super powers.

The above conclusions may sound alarming or even far-fetched to those who have been habituated to looking at educational issues in isolation of economic, political and technological developments. But they are not. Distance education itself has become a global phenomenon and its developments have intimate relationship with the developments of global trends in economy and technology. Economic imperialism, political imperialism and technological imperialism have simultaneously forged an alliance with cultural imperialism of which educational imperialism is only a minor component. The dilemma of the developing world is that it has not been able to resist the global onslaught of powerful economies without compromising their own economic interests and political sovereignty. Such compromises are justified by the rulers of the poor nations in the name of 'integrating themselves' with the global economy. In fact, the term 'globalization' is a euphemism for opening the gates of every country to the economically powerful countries. This is not a voluntary welcome, but a compulsion for the weaker nations without which their very existence as nations would become difficult. The same dilemma, and for the same reasons, is faced by the distance teaching institutions in developing world. It is not a matter of recognition, but a question of resolve that is needed to strengthen the educational models which grow in individual countries much in the same way one feels the need to protect the seeds and plants of different countries which are threatened and destroyed in their own native soils by the patent rights and GATT agreements signed in Uruguay but decided in Washington.

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UNIT 7 MEGA-UNIVERSITIES, VIRTUAL UNIVERSITIES AND KNOWLEDGE MEDIA: CAN WE HAVE QUALITY WITH QUANTITY?

Sir John Daniel

Abstract

A review of traditional measures of quality shows that there is no reason in principle why distance learning cannot achieve high-quality. The UK Open University is an example of a distance-teaching institution whose excellent quality has been acclaimed nationally and internationally. The quality criteria used by Britain's national teaching quality assessment scheme are more profound, and appropriate to all forms of higher education, than traditional quality measures. The teaching systems of open universities can be organised to produce distance learning of quality. Today the knowledge media, which arise from the convergence of computing, telecommunications and the cognitive sciences, are bringing new possibilities to distance learning. The knowledge media could be used to further improve the teaching and learning systems of open universities. Looking at these developments from the perspective of the virtual universities suggests what they must do to ensure quality.

Distance Learning goes to the top of the agenda

In the last few years the contribution of distance learning to higher education has become a focus of discussion in many countries. There are two reasons for this.

First, the world now has nearly thirty years of experience of the success of a new type of university, usually called an open university. These new institutions have used various communication media to reach students at home because they have used new technologies to reach a new student body; these universities have redefined the mission of universities.

In 1969, at the inauguration ceremony of the UK Open University its founding Chancellor, Lord Crowther, charged it to be open as to people, open as to places, open as to methods and open as to ideas.

To be open as to ideas (is the *raison d'être* of all universities,) although they have not always been open to ideas about how to run their own affairs. However, the three other qualities of openness have distinguished the open universities from campus universities for almost two decades. The main aim of open universities is to open up higher education to more people. This is especially true of large open universities. Last year I studied these universities, which I call the mega-universities, for my book, *Mega-universities and knowledge Media: Technology Strategies for Higher Education*. I am delighted that my book has now been translated into Malaysian and Chinese, because the mega-universities are the most important advance in higher education of the 20th century.

I shall discuss the mega-universities in a moment. Their aim is to be open as to people, which often means adults already in employment. To take education to such people, wherever they live, the mega-universities have to be open to places. This in turn requires them to be open as to methods because they cannot achieve their aims through traditional classroom teaching.

The second reason that distance learning has become a topic of live interest in many countries is related to the explosive growth of the interactive computer and communications technology of the Internet and the World Wide Web. The term virtual university has become associated with proposals for new universities grounded in this technology. But the phenomenon is more widespread than that. Many universities that have previously taught only on campus now say they are 'making courses available on the Web'.

We can think of open universities and virtual universities as mirror images of each other. The open universities began with the goal of being open to people. To achieve that goal they had to adopt the secondary aims of being open to places and open to methods. The virtual universities begin with the goal of being open to certain new methods – the knowledge media – which they hope will allow them to achieve the secondary aims of openness to people and places.

The real and proven success of open universities and the apparent promise of virtual university projects have created an unprecedented interest in distance learning. This is causing many universities, implicitly or explicitly, to include in their missions the notions of openness to people, to places and to methods. Some people think that this challenges the accepted notions of quality in higher education.

Can Distance Learning be any good?

Let us examine that challenge. I shall first review traditional measures of quality in order to argue that there is no reason in principle why distance learning cannot achieve high quality. Second, I shall cite the UK Open University as an example of a distance-teaching institution whose excellent quality has been acclaimed nationally and internationally. Third, I shall examine the quality criteria used by Britain's national teaching quality assessment scheme and argue that they are more profound, and appropriate to all forms of higher education, than traditional quality measures. Fourth, I shall show how the teaching systems of the Open University in particular, and the mega-universities in general, can be organized to produce distance learning of quality. Today the knowledge media which arise from the convergence of computing, telecommunications and the cognitive sciences are bringing new possibilities to distance learning. My fifth task will be to show how the knowledge media could be used to further improve the teaching and learning systems of the mega-universities. Then, sixth, I shall review these developments from the perspective of the virtual universities and suggest what they must do to ensure quality.

My overall conclusion will be simple. Universities can achieve high quality with distance learning but quality can never be taken for granted. As in other areas of human endeavor, quality is the result of good design, thorough planning, professional implementation and careful evaluation.

Today the rapid development of distance learning threatens quality – and the perception of quality – in higher education for two reasons. First, the

early form of distance learning, postal correspondence education, had low status and a poor reputation for quality. Will electronic correspondence education acquire the same status and the same reputation? Second, applying technology to higher education challenges traditional notions of quality more profoundly than applications of technology in other fields of endeavour. What are those traditional notions?

Traditional Notions of Quality in Higher Education

If you ask ordinary people what makes for quality in a university – or watch parents who are advising their children about higher education – they will usually identify four criteria.

First, there is the very simple criterion of age. Older universities are thought to be better. There is some validity to this criterion. If you take national quality assessments of British Universities there is a fairly good correlation with their age – although there are some notable exceptions. In the UK, York, Warwick and the Open University are all in the top ten for quality and yet are relatively new universities. In Canada, to give another example, the University of Waterloo is very highly rated although not very old. You can do similar analyses for your own countries.

Second, universities that are highly selective in the students that they take are thought to be better. This is the fundamental principle that the open universities has challenged. Throughout history quality of education has been associated with exclusivity of access – somewhat like a golf club. But education is not like golf. The Open University philosophy is that there is no limit to the number of people who can learn at the same time. The space of the human intellect is infinite and allows everyone to play.

Third, universities that provide lots of personal contact between students and their teachers, and between students and students, are thought to be better. We must take this criterion of quality seriously. Education is an exercise in human communication. I shall show that distance learning can provide that communication, and provide it better than campus universities.

Fourth, universities with lots of resources of money, buildings and staff are thought to be better. This criterion of quality brings together the other three. Older universities have had time to accumulate wealth. Resources are always limited so they are naturally linked with exclusivity. Personal contact and service cost money.

I aim to convince you that these traditional measures of quality are outdated. The success of the economies of this region is a proof of that. First, when you make cars or computer chips you do not consider that older factories are better factories. The reverse is true. Second, you don't consider that it is better to work to a small market than a large one. When you make computer chips or cars you seek volume. Third, the issue of human intervention is more complex. But having a large staff is not good in itself. What you seek are highly skilled people performing specialised functions that add high value.

And, fourth, appending more money than your competitor to achieve the same result is certainly not what made your tiger economies great. In Hong Kong, Korea, Japan, Singapore, Malaysia and the other countries of the region you have achieved success by being better organised than the rest of the world. This enabled you to use less people, materials and equipment to make quality products. That is also the aim of the open universities, and that is why the Asian Association of Open Universities brings together such a successful group of institutions.

This means that Asian people should be particularly skeptical about the old criteria for quality. You have been successful by using other criteria – criteria related to the quality of your output in relation to its cost.

But this is all rather theoretical. Most of us have spent our careers in higher education and find it difficult to abandon our belief in the old quality criteria. We need an example to prove that distance learning can be of higher quality than campus teaching.

An Example of Quality

That is what I can provide. The example of the UK Open University should be a great encouragement to all of you because it has shown – and the British government has formally recognized – that it has transformed the quality equation. In this second section I shall simply report three pieces of data.

First, the three higher education funding councils in the United Kingdom – for England, Wales and Scotland – are government bodies that have to assess the quality of the higher education programs that they fund. They examine the quality of teaching in each discipline and the highest quality rating that they award is 'Excellent'. Over the last few years quality has been assessed in many disciplines and you can now judge the overall quality of each UK University by the proportion of its programs that have received 'excellent' ratings. You can see that among the 101 universities of Britain there is a small premier league of universities where the majority of programmes are excellent. The Open University ranks number ten in this premier league – and therefore in the top ten percent of all UK universities.

This is impressive, but second set of data show how far the Open University has actually redefined the notion of quality in university teaching. Let us look at some disciplines, separate out the programs in each discipline that are judged to be excellent and count the number of students involved. Then, let us find out what proportion of these students – expressed as full-time equivalents – are with the Open University students are the majority. In all the other they are a large minority. This is a remarkable result. Many people would not think that distance learning had a natural advantage in either geology or music, because of the need for practical work. Yet you can see that most of the students in England that are receiving excellent university instruction in those subjects are studying at a distance.

My third set of data comes from Scotland. The Scottish Higher Education Funding Council recently commissioned a survey of part-time students in all Scottish universities. You can see that in every area but one the Open University scores higher, usually much higher, in student satisfaction than Scotland's campus universities. It scores three points lower – only three points lower – on 'Friendly Atmosphere' which is itself a remarkable result for distance learning.

You should all take encouragement from these remarkable results. I hope that you each have results from your own countries which show how open universities are steadily overtaking campus universities in the quality of their teaching.

True Measures of Quality

But how do we measure quality – what do these results mean? For the third part of my talk I shall say a few words about how the Higher

Education Funding Council for England measures quality. It aims to assess the student learning experience and student achievement against each university's aims and objectives. Six core aspects of higher education provide the framework for the assessment. They are:

- Curriculum Design, Content Organisation
- Teaching Learning and Assessment
- Student Support and Guidance
- Learning Resources
- Quality Assurance and Enhancement

In each university the teaching of each discipline is graded in each of these six areas on a scale of 1 to 4, where a score of 1 is unsatisfactory. This means that you can achieve a maximum score of 24 points for each discipline. The funding council considers that a score of 21 or above means an excellent program. I am pleased to say that the last assessment at the Open University, which was of the Sociology program, produced a score of 24 out of 24. This was the first time any English university had achieved that top score.

I hope you will agree that the six criteria used in assessing higher education in England are more appropriate than the traditional measures of age, exclusiveness, personal contact and resources that I outlined earlier.

Quality in Distance Learning

For the fourth section of my talk I shall examine how the UK Open University— and all open universities — achieves quality. I suggest that there are four ingredients.

First, high quality multi-media learning materials. Study materials must be excellent and varied to make study in the home or the workplace a congenial university experience. One way of ensuring quality is to have courses produced by multi-skilled teams.

Such teams include a number of academics. So, that the structure and concepts of the course are developed in a critical and intellectually fertile environment. They also include people skilled in the design and production of the media that the course will use: editors, TV and audio producers, graphic designers, software specialists, experts in student assessment and so on.

The challenge is to get a good balance between the time and effort invested in making the course and the quality of the student experience. The great advantage of the large open universities — what I call the mega-universities — is that they can afford to make large investments. However, smaller universities can use the same principle by working collaboratively to produce courses.

The second key to quality in distance learning is dedicated personal academic support. Each UK Open University student has her/his own tutor for each course, one of OU's 7000 associate lecturers. These part-time academic staff comment on and mark the student's assignments, hold group meetings where possible and give support by phone and e-mail. Not all students choose to attend the group meetings, even when they are available, but nearly all students rate the help from their tutors very highly.

The third quality element is slick logistics. Each individual student must receive the right materials and information at the right time. With over 100,000 students that requires careful attention to detail.

Fourth, a strong research base. When thousands of students use the materials for each course and millions of people view each TV program the content must be academically up to date. Thanks to economies of scale the Open University has the resources to move the academic paradigms steadily forward.

In the UK the funding councils also assess the quality of research in each university on a regular basis and use the same to determine how much money that university gets for research in each discipline. For research the Open University now ranks 28th out of 101 UK universities. Each OU faculty is conducting research of international caliber. Some of our research has become well known in the last couple of years. One of the world's leading experts on the interesting question of whether there is life on the planet Mars is Professor Colin Pillinger of our Earth Sciences department.

Those are the four elements on which the UK Open University has established its reputation for quality. I believe that they are generally relevant to distance learning. That means that an important test of the usefulness of any new technology to distance learning is to ask how it can contribute to these elements of quality. Let me now look at today's new technologies, which I call the knowledge media, through this lens. Examining the implications of the knowledge media for the distance teaching mega-universities was an important aim of my book.

The Contribution of the Knowledge Media

Various terms have been coined for the new combinations of technologies that are creating so much enthusiasm in today's world, such as telemetric, the information superhighway and multimedia. I prefer the term that has been coined by my colleague Marc Eisenstadt: knowledge media. He uses this term to designate the results of the convergence of computing, telecommunications, and the cognitive science.

Eisenstadt's term challenges us as academics because he believes that the combination of present technologies with what we know about learning will change fundamentally the relationship between people and knowledge. That's because the knowledge media are about the capturing, storing, imparting, sharing, accessing, creating, combining and synthesising of knowledge.

The knowledge media are not just a technical format, such as CD-ROM or computer conferencing, but the whole presentational style, the user interface, the accessibility and the interactivity.

All universities are asking themselves what the knowledge media mean for them. Academics are effervescing with individual projects. Politicians and policy makers dream of creating virtual universities. Will virtual universities ever be real?

Whether virtual universities become real universities will depend on whether they can contribute to the reinforcement of the four elements of quality that I have listed. Let me take them in turn, starting with the creation of high quality course materials.

Course Materials

The knowledge media can contribute directly to course materials by providing components of those materials. They can also help by providing new techniques for staff to use in developing courses.

For all of our universities the use of knowledge media in course materials is still constrained by the equipment to which our students have access. The minimum equipment that a distance student needs in order to benefit from the knowledge media at home or at work is a computer, a modem and a phone line.

This year, 1997, some 30,000 Open University students have this equipment. That is about one fifth of the OU's 150,000 students, so this is still a minority sport, although numbers are growing fast. In nearly all cases the equipment that the 30,000 students have allows them to read and send text. Very few can receive or send audio or video through their personal computers even though of course, it is possible to circulate audio and video on the World Wide Web.

This means that if we want to use the full teaching advantages of multi-media technology we have to use them in a 'stand-alone' fashion, by providing students with CD-ROMs rather than making the material available on the Web. That, of course, poses another equipment problem, because not many OU students have high-performance CD-ROM players at home.

At beginning of 1998 the OU will launch a new version of its first year science course. This course has made a large commitment to CD-Rom technology. Students will spend some 40 hours working with CD-ROM and we are very proud of the quality of those materials. However, because of the requirement to have a CD-ROM player the numbers of students registered in the course has dropped compared to this year. However, there will be about 3000 students taking the course and we hope numbers will rise in subsequent years.

I hope that you will examine our CD-ROM on basic science for use in your own institutions. Developing such material is costly and it makes sense for you to take advantage of the investment we have made.

This raises another issue which is now the focus of important work by Professor Diana Laurillard, the OU's Pro-Vice-Chancellor for Technology Development. Diana is interested in matching the time the staff invests in producing materials using particular media with the time and effectiveness of student learning from those media. To take an extreme example, it does not make sense for the course team to invest 90% of its resource on developing a component of the course that accounts for only 10% of the time that students spend on the course.

This kind of work is increasingly important, because it is a sad fact that with each new medium the time that is required for developing good materials seems to increase.

The knowledge media are proving useful in the process of course development. First, they allow faster communication and document exchange between members of a course team. Second, they allow members of the course team to keep in contact with students and observe the way they study the course, in ways that were not possible previously.

Student support

From our experience at the Open University I believe that the major contribution of the knowledge media to course materials is still to come. Its success will be determined by our own skill in developing good teaching materials using new methods and by the students' willingness to acquire the necessary equipment. However, I can report that the helpful contribution of the knowledge media to student support is already clear. Student support is the second vital element in quality distance education.

The key to the success of the knowledge media in enriching the discourse between students and our universities and – very importantly – between students and students is Metcalfe's Law. This says that the value of a computer network to a user is proportional to the square of the number of other users. We can already see this law at work in the Open University. Each year more than one thousand students are networked in our program of training for teachers, the Post-Graduate Certificate of Education. This gives rise to a wonderfully rich Web of communication between students as they help each other and discuss the course, especially during their periods of teaching practice.

As far as tutoring is concerned, we have found that computer communication and computer conferencing have required us to develop new techniques. Students are less shy about sending e-mails to their tutors than they were about calling them on the telephone. In order to avoid an increased workload tutors our tutors have developed techniques for moderating conferences, posting the answers to frequently asked questions, and creating student self-help groups that have proved successful.

Logistics

The third key to distance learning of quality is good logistics. Here the development of modern computing systems has already been vital to the success of all our institutions. The development of distributed and interactive computing will enable students to do far more administrative operations themselves, with significant savings in cost and time.

However, reliability is vital. At the Open University we now process over one million student assignments each year. These are a vital element of our teaching strategy, as well as a means of assessment. We are developing methods that will allow students to submit assignments electronically instead of using the post. Obviously we shall not introduce electronic submission generally until we know it is reliable. If even 5% of assignments were to go astray in the Internet that would mean 50,000 unhappy students.

Research

The final element of good distance teaching at university level is for it to be rooted in research. The immense contribution of the internet to improving communication between researchers is already clear and does not need further elaboration from me.

In summary, I have shown that the knowledge media are potentially helpful in strengthening all four elements of quality in distance education. What are the implications of this for the proposals to create virtual universities?

Making virtual universities real

I began by contrasting the origins of the open universities with those of the proposals for virtual universities. Open universities started from a commitment to open higher education to more people in more places and sought new methods to achieve that goal. The virtual university projects start from the assumption that new methods will enable higher education to be made more convenient by extending the boundaries of the campus all over the world.

My caution to the proponents of the virtual universities is the simple adage: technology is the answer, what was the question? Starting from the ends we wish to achieve is likely to be more successful than starting from a means that can be used to achieve various ends. But we must also be aware that the Internet does have its own dynamic. This is still a very new technology and without a willingness to experiment we may not discover its most promising applications to distance learning.

The key to success in using these technologies is to focus on learning rather than teaching. As you all know, there are two traditions of distance learning. One targets individual learning; the other focuses on group teaching. Whatever terms people invent, distributed learning, correspondence study, flexible learning, home-study, remote-classroom teaching, tele-education, guided study, or whatever, distance education still boils down to these two traditions – and they are very different.

The most important difference is that the group teaching approach is based on synchronous communication. Teachers and students most communicate in real time. The individual learning approach is based on asynchronous communication. You create the university in the student's home so they can study there when it suits them.

Another important consequence follows. In the group teaching scenario the teacher communicates with students in a network of classroom in real time. It is a teacher-centered form of education. That is not meant pejoratively. It's simply a fact that if you try to set up a system for a teacher to address a number of remote groups you must design it from the teacher's point of view. Under the individual learning scenario you re-create the campus in thousands of homes – so it has to be a student-centered approach. You must determine what constitutes an effective home learning environment for the student.

I believe that the new technologies have huge potential to improve further the quality of distance education that is based on asynchronous communication with individual students. However, I also see them being used in a very teacher-centered way, as a way of displaying and distributing lectures electronically. The students may no longer be in groups, but the focus is still on the class.

I worry that these electronic correspondence courses may harm the reputation for quality that some open universities have given to distance learning over the last twenty years. That would be a tragedy.

The answer is for all teachers and universities that use new technology for teaching to focus on the true meaning of 'correspondence', that is to say the human interaction that is the basis of education. That means developing stimulating learning materials that students enjoy interacting with, even in the privacy of their homes. It also means developing systems of personal support so that the student who encounters a difficulty is not alone.

Conclusion

This is an exciting time for the Asian Association of Open Universities. Our universities have made tremendous progress in a short time. We have all brought the intellectual stimulation and economic benefit of higher education to very large numbers of new students. We have begun to establish a reputation for quality and even to redefine, in a more appropriate and profound way, the very meaning of quality in higher education.

We now face the challenge of a new generation of technology. I have tried to show that if we use them properly we can further improve the quality of the distance learning opportunities that we make available. But I have also argued that there is a risk that the widespread infatuation with these technologies may lead conventional universities to offer poor quality, teacher-centred materials that will tarnish the reputation of all distance learning.

The answer is for us all to engage resolutely with these technologies so that we can set the benchmarks for their effective use, just as we have done with the previous generation of media. I wish you all well with this vital task.

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UNIT 8 DEVELOPING IMPROVED STRATEGIES TOWARDS BETTER STUDENT SUPPORT SERVICES

V.S. Prasad

***Editor's note:** Editor is indebted to Indian Distance Education Association (IDEA), for allowing reprinting the 6th Keynote address of IDEA conference held in 1997. The lecture was delivered by Prof. V.S. Prasad. This address traced the growth and development of distance education over centuries with special reference to indigenous experiences. Even after 50 years of experience in ODL, some think that the ODL is still in its embryonic stage or "egg" stage. V.S. Prasad traced the experimentation and innovations, that are very important in Open and Distance Education since the education through distance mode is new. Diversified means and methods have to be employed for extending effective support services to its learners in the Open and Distance Learning. He strongly felt that learner support services are essential element but not a supplementary tool. Universities provide more direct services to its learners by providing effective learner support services. In this write up, the emphasis that the learner support is mostly related to effective domain activities rather than cognitive domain and mostly related to mindset of the people who render services to its isolated learners.*

Introductory Remarks

I am grateful to the Indian Distance Education Association for honouring me with a privilege of delivering keynote address at the Annual Conference. I have no claims for any superior wisdom in this field. Based on my long association with this system as a practitioner in various capacities and as a critical observer of social phenomena, I venture to make a few observations for the consideration of the members of this professional body of distance educators in India. These observations are more the expressions of self-understanding and loud thinking. This, I think, is one of the main purposes of any annual conference of professional bodies.

Distance Education: An essential form of Education

Distance Education is a product of the convergence of two kinds of streams i.e. the educational vision of realising human potential and the technological vision of liberation from space and time constraints. It is one of the most important educational innovations of the 20th century, though the beginnings can be traced to earlier periods. Those of us who are very fond of tracing every successful modern idea to our ancient wisdom could claim Ekalavya as a first distance learner. The establishment of the British Open University in late sixties and its successful functioning during the last few decades gave legitimacy to distance education as a desirable form of education. Harold Wilson, the former Prime Minister of UK, who was instrumental in the establishment of British Open University, once when asked 'what significant contribution he wishes to be remembered for' replied that 'he most wished to be remembered for as the founder of open university'. G. Ram Reddy, pioneer of distance education in India, rightly observed that 'the system is needed more for developing

countries'. Distance Education known by different nomenclature, is not only considered a desirable system, but also become an essential form of education and training for development. Traditionally the conventional education was considered a mainstream educational activity and distance education a supplementary or an additional mode to attend to the educational needs of particular target groups. This is considered an essential component of education system whose scale of operations are very large, adopting varied methods and systems to serve diverse purposes. Today in 107 countries in the world, there are 1086 distance education institutions offering 28295 courses in Science, Technology, Social Sciences, Humanities and what not! As distance educators we can feel happy and proud that we are participating in a very useful social activity.

Paradigm Shifts in Education : Momentous changes are taking place in all walks of life. Education as a subsystem is also influenced by these social changes. Historically some of the paradigm shifts in education are:

- 1) Education as a privilege to education as a right;
- 2) Teacher centered institution based education to learner centered home based and work place based education;
- 3) Community supported education system to state supported education system to market driven education system; and
- 4) Education as one time activity to education as a life long activity.

The Open and Distance Education is a response to these paradigm shifts in education. Any discussion on mission and methods of distance education should take these paradigm shifts as benchmarks for analysis and understanding. Developing improved strategies towards better student support services, the theme of the present conference, should be explored in the context of open and distance education paradigm.

Learner Centred Approach: The learner centredness is considered an important defining character of distance education like people-centredness in democratic policy and consumers-centredness in capitalist market systems. The learning process is to be designed keeping in view requirements and the conveniences of the learner. The technology mediation helps in overcoming the space and time limitations and design educational processes based on learned needs. The YCMOU brochure entitled 'Liberating the Learner' aptly expresses the philosophy of distance education. The student support services are considered an essential component of distance education, which makes it different from private appearance. All the services provided to the learners, other than the learning materials are considered support services (Mariam Craft).

Methods of support services: In India we find quite a divergence in the methods of providing support services by distance education institutions.

The pattern followed by most of the CCIs presently DDEs are:

- a) The support services are mainly related to subject based tutorial services (Personal Contact Programmes), and
- b) The services are more in the form of one time contact group services.

The pattern followed by most of the open universities is:

- a) The support services are structured as a continuous activity,

- b) The support services are provided through the institutions popularly known as study centres, and
- c) The support services include subject based tutorial services and system based services.

Influenced by the experience of open universities most of the CCIs have also adopted study centre approach for providing support services.

For an overview, we may identify a few important features of systems of student support services in India. These are:

- a) The services are mostly delivered through study centres/work centres/ regional centres. There are variations in the structure and processes of these centres. Some institutions like IGNOU are trying to provide support services directly to learners through the print and other media.
- b) The services are more group based than system based.
- c) The services are more subject based than system based.
- d) The services are more structured and less flexible.

Dimensions, Issues and Concerns

- A) ***Student Support Services as an essential requirement:*** The Student Services as an essential requirement means proper budget allocation and appropriate organisational arrangements. It is not inconceivable then that many institutions may not provide adequate services on the plea of lack of sufficient resources. It is therefore necessary to identify the minimum services to be provided and the resources required for the purpose. The prioritisation of service also helps the institutions to use the resources optimally.
- B) ***Balance between individual and institution support based services:*** The philosophy of distance education demands more individual based support services. How to individualise the mass media is one of the challenges faced by distance educators as rightly observed by Sir John Daniel. The pragmatic considerations lead to providing the group based services through the study centres. The institutions should make efforts to provide direct services to individual learners.
- C) ***Flexibility in providing services:*** At present the Open Universities are following a more structured approach to provide the services. Keeping in view the needs of learners and nature of programmes, diversified strategies may have to be used. The learners from disadvantaged social background and women may need special attention and services. Fee payment based on the capacities and services based on the needs should be the approach of distance education institutions. In designing the flexible structures the pedagogic requirements and the diversity of learner's situations should be taken into consideration.
- D) ***Use of multi media technology for providing services:*** At present the subject based services are mostly provided by the Academic Counsellors/tutors at study centres. There is a need to use Satellite and Computer Technology for providing more interactive support services. The IGNOU is using Satellite and Computer Technology for certain programmes. The IGNOU is also trying to experiment with multi media learning centres. The Cable TV Network can also be

used for providing services. Information technologies can be more widely used for providing more efficient administrative service and for dissemination of information. The fears that the technology use in distance education may drive away the poor from the system should be given due attention. The only hope is that as the technology costs are falling and the scale of distance education operations are very large, the developing countries may be able to use the technology more extensively, with the State playing a key role in the development of technology infrastructure. Here a word of caution may be appropriate to guard ourselves against technology fetishism. Technology, though very useful, cannot be an all out solution for the problems of distance education. Technology is only a tool and its use should be guided by human choice of right values.

- E) **Partnership arrangements:** The distance education is considered cost effective because of its ability to use the available infrastructure during the lean period. The support services are generally provided by using the facilities at existing educational institutions. The experience of sharing of the facilities is not always encouraging. There is a need to develop clear norms and patterns for sharing of facilities. The feasibility of developing partnerships with institutions with common objectives should be explored. The partnership arrangement can be entered with public organisations, community based organisations and private organisations. In entering into agreements with private agencies, care should be taken to see that the learners are not exploited and the institutions name is not used for commercial purposes. The bilateral/multilateral MOU approach followed by public undertakings can be adopted for this purpose.
- F) **User responsibility in providing services:** The distance education programmes as public goods serve the society in general and target groups in particular. The distance education has a rightful claim on the use of community resources for providing student services. The industry and other service sector organisations, both public and private should actively associate in providing facilities to their workforce for pursuing distance education programmes. The industry and government organisations in collaboration with open universities can undertake the tasks of updating the knowledge and skills of staff through distance mode.
- G) **Ensuring optimal use of facilities:** The experience of open universities and other institutions shows that only around 30 to 35 percent of learners are using the services. It is paradoxical that on the one hand we do not have sufficient resources to provide services and on the other hand the services provided are not sufficiently used. The causes for under-utilisation of facilities needs to be examined and appropriate strategies should be designed for the optimum utilisation of services.
- H) **Quality of support services:** The under-utilisation of services may be because of poor quality of services. The quality of tutorial and counselling services need to be improved to motivate the learners to demand for more. The training of support service staff is necessary to improve their competencies and feedback from the learners on the quality of services will help in designing more appropriate service systems.
- I) **Sharing of support services:** The sharing of support services among the distance education institutions is necessary for optimum

utilisation of limited resources. Some of the services which can be shared are: exchanging experiences in providing support services; sharing information on distance learning programmes; materials on study skills of distance learners; collaborative staff training; tutorial and counselling services for common pool programmes; teleconferencing services; library services; exchange of consultants etc. Sharing of services is possible only if there is a paradigm shift from competitive ethic to collaborative ethic. Even in competitive situations the problem today is defining the rules of competition.

- J) ***Development of study skills:*** The distance learners should have appropriate coping skills and strategies to pursue their learning through distance mode. The study of learning materials, time management, preparing the assignment require considerable effort and skills. Some distance learners suffer from 'Abhimanya Syndrome' i.e. they know how to enter Open Universities but do not know how to come out successfully. The learners should be clearly informed of what is required from them as distance learners before they join the programme. Here the pre-entry counselling will greatly help the learners. The British Open University has prepared a 'Student Charter' which is given to every student on going to the university. It contains in detail what the university is, how the teaching-learning process takes place, what are the responsibilities of the student and what are his/her rights. This practice deserves to be followed by all distance education institutions. It is said that in the conventional system the students create problems to the institution, but in distance education institution creates problems to the students. The high expectations not matched by efforts and competencies may result in frustrations and unfounded dissatisfactions. The weak contractual relationship is one of the causes for the ineffectiveness of the system.
- K) ***The administrative arrangements:*** The implementation is the Achilles heel of all the programmes. The grand designs may crash to ground if not properly implemented. The administrative efficiency of the institution is a critical variable in providing the services. There is a progressive decline in the work ethics of staff of public institutions in general and educational institutions are no exception. From the performance criteria the staff of public institutions can be categorised into four groups:
- a) The competent, but not committed
 - b) The committed, but not competent
 - c) Neither competent nor committed
 - d) Competent and committed

These are only analytical categories, neither absolute and exclusive nor fixed. The institution policies and actions, must recognise and encourage the last category of staff, weed out the third category, train the second category to improve the competencies and motivate the first category to give their best to the institution. The institutional management practices must help in the development of the 'spirit of performance' in the institution. But unfortunately as Peter Drucker observed most of what is called management consists of making it difficult for the people to work'. We are trapped in a bundle of paradoxes – good employees trapped in bad systems and good systems destroyed by bad employees. The institutions require leaders

with vision to resolve these contradictions. As the nations require politicians who have the political courage to look beyond the next election, the institutions require leaders who have the courage and conviction to look beyond their term of office.

- L) **Globalisation:** The developments in technology made the national boundaries irrelevant in many sphere of activities. 'Death of Distance' is the title of the special issue of 'The Economist' (Sept. 3, 1995) on Telecommunication. Information technology will cut down lags in learning. Knowledge in a digitised form can be instantaneously diffused across the world. Today it is possible to download volumes of information from the internet, virtually and instantaneously. Virtual universities consisting of a market of individual suppliers of instruction pursued by consumer students paying prices determined by market forces is now technically viable. Many foreign universities are offering distance education programmes in our country. In the context of resource crunch in higher education and self-financing approach for funding of distance education institutions, the student satisfaction may become one of the critical factors for the survival of the institutions. The global competition in distance education, it is hoped, will force the distance education institutions in India to provide better services to learners to survive in the field.
- M) **The role of national and international agencies:** The national and international agencies in distance education can help in sharing of information, experiences and resources. The Distance Education Council is facilitating the exchange of ideas by associating in organising workshops and seminars on this theme. The DEC is also providing developmental assistance to State Open Universities to strengthen their support services infrastructure. Further the Council is also encouraging research in this area by funding research projects of staff of State Open Universities on Student Support Services.
- N) **Need for experimentation:** The distance education systems are in an evolving stage. Different models of support services should be tried in practice before evolving an appropriate model. Different organisational arrangements may have to be experimented with. The 'Pilot Project' approach may be adopted to learn from the experience.

Concluding remarks:

I have tried to share some concerns in developing strategies for providing better services to learners. I am sure all of you are equally aware of some of these problems. I have done the job more like a traditional academic i.e. analysing the problems. The solutions, I hope, will emerge from the practice, provided we are open to ideas and capable of learning from experience. I am reminded of a comment of a cynic who defined a conference as "a meeting of individuals who individually cannot do anything and collectively decide that nothing can be done". As optimists, all of us have a responsibility to disprove the cynics. Let us hope that education as a creative human endeavour is capable of responding to new challenges.

UNIT 9 THE PROBLEM OF CREATING A DISCIPLINE OF DISTANCE EDUCATION

John J. Sparkes (1987)

Preface

The problem of creating a discipline of distance education explained by John J. Sparkes was written in the year 1987. The article broadly focuses on the theme of distance education as an academic discipline. The article raises conceptual issues of distance education discipline and explanations. After passing the three decades, the debate is still valid with the innovation, creativity and best practices undertaken by the Indian distance education. After going through this article, readers will make an attempt to discuss the issues related to discipline of the distance education. The editor hopefully believes that the debate would lead the issues of professionalism in education in general and distance education in particular.

Introduction

Teaching-at-a-distance is a growing activity and has a range of problems and solutions. So there seems to be a prima facie case for thinking of it as an academic discipline in its own right even though it also can be thought of as merely a part of the discipline of Education. It is interesting and significant, however, that many people are reluctant to concede that Education itself, as it is in universities today, is a 'proper' discipline, for reasons which might be inferred later in this article, and so the question of what we mean by a discipline immediately arises. But this question is, in any case, at the heart of the topic under discussion, so I will discuss it first. I shall then argue that distance education, though not mature enough yet, could well become a discipline, and so, finally suggest what is yet needed academically if it is to become one.

What is a discipline?

Obviously, an academic discipline is an area of academic interest, and one that poses sufficient problems to stimulate research, and one that leads to the publication of journals in the subject area. But these on their own are not enough. There are many specialist fields of interest which have these properties but which are not thought of as academic disciplines. Even appointing a professor in the field of interest does not establish its credentials as a discipline, since there are many professors who only cover specialist areas within a discipline. Together with other professors, in related specialism, they may cover a field that is regarded as a discipline.

A discipline must, of course, start somewhere, and the general acceptance in the academic community of the emergence of a new set of problems is an essential precursor. Appointing a professor in a new field is both an expression of this acceptance and an important step along the road towards the establishment of a new academic discipline. Usually the area covered by such an appointment is a subsection of an already existing discipline, or is concerned with areas of overlap between one discipline and another (such as biotechnology or applied mathematics).

They become disciplines in their own right if they grow in various ways, which we must discuss in a moment. Failure to grow in some of these dimensions seems to result in a discipline being thought of as not a 'proper' discipline.

However, observations like these, even if true, do not represent more than an introduction to the problem of establishing what is meant by the word discipline. There are three well tried ways of establishing the meaning of words, as follows.

One is to find out what most people think it means, since there is some truth in the saying that 'where the meanings of words this approach is valid, but with more specialist words, such as 'discipline' (in the academic sense) the empirical must restrict itself to a more specialist group mostly academics in this case.

Then there is the Delphic method, in which acknowledged authorities are consulted and their collective view is distilled in an oracular statement. (This method has, for example, been used to establish the meaning of 'distance education' by Keegan.)

Finally, there is the analytical approach, which tries to specify the meaning of a word in terms of the concepts and content it embraces. As compared with the analytical approach, the empirical and Delphic approaches gain in acceptability, but lose in precision.

My earlier observations amount to no more than the beginnings of an empirical approach. They serve to outline the shape of what is meant by a discipline, but are not specific enough to be used as means of delineating its boundaries with much clarity. The analytical approach added to such an outline can fill in the details and establish whether the more precise meaning that emerges makes sense conceptually. In this paper, I intend to focus only upon the analytical approach.

The analytical approach

Let us begin with the idea that a discipline is indeed an area of interest, within which research can take place and which has a journal or two devoted mainly to it; and let us ask in what ways it must grow in order to become acceptable to the academic community as a discipline. The answer is, I think, that:

- i) It must grow in degree of relevance to real and important problems. These problems can take various forms, some are of practical importance (e.g. engineering), some are concerned with knowledge for its own sake (e.g.
- ii) Cosmology), some are concerned with the interpretation of events (e.g. history, literature) etc. The importance of these problems must, in the end, be accepted by the academic community even if interest in them originated elsewhere in society.
- iii) It must grow in theoretical and conceptual depth;
- iv) It must develop its own 'conceptual structure'; that is there must be a complex set of interrelationships between its fundamental ideas.

Let us consider each of these in turn. Since each of these ideas is wholly abstract the concept of growth is itself not an easy one. Indeed if they are to be given any meaning they must have some relationship with reality.

The phrase 'degree of relevance' is not easy to pin down since it covers a wide range of ideas. Measures which seem appropriate to it include:

- A) Number of students interested in studying it
- B) Number of other disciplines that apply, use or build upon its theories and data. (For example, the understanding of most subjects, from politics to physics is helped by the insights drawn from history; equally most sciences build upon physical principles, etc.)
- C) The range of key concepts and theories that are characteristic of the subject
- D) The number of specialism it embraces

For none of these measures, even if they can be determined exactly, is there a threshold value which must be exceeded. All however, must be in the plural, and the wider the relevance the better.

There are several levels of 'conceptual depth' in the theoretical development within a particular subject. The simplest categorisation is as follows:

- At the most superficial level are empirical generalisations or 'laws' that are true within specified limitations (e.g. Boyle's Law in physics).
- At the next level are explanations of these laws often in terms of abstract concepts (e.g. kinetic theory or atomic theory in physics).
- At the deepest levels are those theories which express relationships between these abstract concepts (e.g. thermodynamics or relativity in physics).

An area of intellectual interest that concerns mainly with nothing deeper than empirical generalisations or that only deploys theories derived from other disciplines tends not to be acceptable as an academic discipline.

The idea of conceptual structure is best exemplified by the paradigms brought into prominence by Kuhn in 1962. Perhaps the unequivocal text for a discipline is whether it has developed its own paradigms; it seems that it is of the nature of a paradigm to defy precise definition, though it underlies and sets the profile for much of the thinking within a discipline. At the heart of a paradigm lie the core theories that those within the discipline (the disciples) accept as proven, and which they protect, in the face of contrary evidence, by auxiliary theories. So, conceptual structure is much concerned with mutual support provided by the theories that are active within the discipline. (For example, in Newtonian mechanics it is accepted that a gravitational force of attraction exists between bodies. But when some bodies, such as magnets or electrically charged bodies or elastic bodies in compression repel one another, gravitation is not rejected: it is protected by further theories of magnetism or electricity etc).

Few disciplines actually develop their own paradigm and so acquire this unequivocal qualification for recognition as a discipline. It is a sufficient, but not a necessary, condition. At least, however, a discipline should be reasonably rich in the structure of the understanding its students are required to learn. It is to be regretted, I think, that this kind of structure is already responsible for the difficulty academics have in embracing disciplines other than their own, but, then such is the nature of academia!

The foregoing are general criteria for the establishment of a discipline. How do actual disciplines conform to these criteria? Electronics is

example of a branch of a larger subject – electrical engineering – that has emerged as a new discipline in its own right since World War II. Let us put it to the test.

Nowadays there can be no doubt about the numbers of students who wish to study it or about the growth in areas of relevance that it embraces, from hi-fi, computers and satellites to artificial intelligence, feedback and control. Nowadays it embraces a number of quite fundamental theories, including information theory, network theories, control and feedback theories, which are finding application in many other disciplines. One measure of the depth of a theory is the degree to which it can be used for creative work. If it leads to the design of activities or artifact which would not otherwise be conceived, then it follows that the theory must apply well beyond the limits of current experience. This is certainly the case in electronics where the above theories as well as that were needed (of course, applying theories is not the only way to creative achievement, so the converse argument does not hold. That is, it does not follow that if creative achievements occur then there must be fundamental theories to underpin them). Electronics gained acceptance in the first place as a result of its practical achievements in communications, computers, radar etc., especially during the war, and as a result of the emergence of powerful theories on which their design depended.

Electronics is now being subdivided into further specialism, such as communications, instrumentations, materials, medical electronics, etc. So, it seems to qualify on all counts as a discipline, even though it cannot be said to have established a new paradigm. It lies finely within the paradigms of science, but reaches far beyond the discipline boundaries of physics, its closest scientific neighbor.

Distance Education as a Discipline

It is unfortunate that the subject 'education', as it is presently presented in universities and colleges, concentrates so strongly upon face-to-face teaching in schools. Although such specialization is understandable, since this is the domain in which most teachers work, it results in many aspects of teaching being ignored. In particular the problems of teaching at a distance, and the use of media of various kinds for this purpose are not given much attention.

Again it is unfortunate that most university research in education concentrates so strongly upon studies of existing practice in schools, upon comparative studies of various educational institutions and upon the social consequences of school education. Theories of learning embraced by the subject of education are derived mainly from the work of educational psychologists working within the face-to-face environment. It turns out therefore that the joint activities in the task of teaching at a distance already indicate that successful methods of face-to-face teaching do not readily translate to the distance teaching mode.

Two examples illustrate the new problems that arise:

- 1) In order to grasp new concepts, and new ways of looking at complex problems, certain learning strategies are normally necessary. (These strategies are not the same as those needed for acquiring knowledge or for acquiring intellectual skills). Concepts are abstract ideas, and their relevance to reality is by no means obvious. In face-to-face education they are, for example, explained in lectures or classes,

discussed in tutorials or informal groups, tested out in laboratories and read about in libraries. But none of these methods is available, except in small measure, to distance teaching students. The richness of presentation of new concepts must be planned so that the strengths of each medium are fully exploited. Printed texts, television (both broadcast and taped), audio-vision, home kits (where appropriate), computer terminals, limited tutorials (for the most difficult ideas), limited student self help groups, assignments etc. must all be combined, according to their particular strengths and weakness to provide students with the necessary learning environment. The concepts must be analysed, placed in the correct contexts, made use of for explanatory or creative purpose, and generally, brought to life by combining several distance teaching methods. Provided they are properly deployed in a well balanced-multi-media system, the kind of rich learning opportunity that can be achieved with much less conscious planning through direct student-teacher interaction can be made available. Such planning however requires an understanding of the strength and weaknesses, in relation to different educational aims of each different distance teaching medium. These are the new problems.

- 2) Television can be used in several different modes. As a means of presenting the visual world to students in a classroom or at home it is unsurpassed. At their most effective, for this purpose, television programmes present only 'surface' or factual knowledge such as natural history for geography or buildings etc. In the form of video tapes played on a VCR these facts can be reviewed as often as is desirable. Again, well produced programmes, or films, are unequalled (except of course by real events) as means of stirring the emotions. In other words they are effective in the 'affective domain'-but only, as a rule, on first viewing. However to teach understanding of new concepts cannot be photographed. Evidently therefore some methods must be used to bring to light the concepts which underlie the visual presentations. This can be done either verbally (on the sound track) or by visual animation or by analogy. But however it is done, the design of the programme depends crucially upon whether it is to be broadcast (and only seen once, or perhaps twice, at a single sitting) or whether it is to be viewed privately on a VCR with as many interruptions and repeats as the student needs.

Just as important is the distinction between a TV programme which is to be self-explanatory (as in distance teaching) or is to be explained by a teacher in a class room of pupils. In the later case the programme is more a resource for the teacher to draw upon for discussion, and again it must be very different in broadcast and video-tape cassette format. So again distance teaching raises new problems from those of face-to-face teaching even when telecommunication media are used.

Solutions to these problems, and other similar ones, are being researched at the present time and, although they will have reliance to a wider field than do distance education, the work will primarily be of benefit to this important field.

For all these reasons there is a need for further research and training in distance education within the schools and faculties of education. But for separate disciplines to be established more insights into the process are needed. Examples of topics about which analyses and theories are needed include:

- 1) A new taxonomy or categorization of educational aims and types of courses, bearing in mind the wide range of courses required by part-time, home-based students. The set of types of educational aim might include the teaching of knowledge, of understanding, or intellectual skills, of manual skills, and of attitudes etc. (of Bloom). The set of types of courses might include awareness courses; training courses, updating courses, academic courses, upgrading courses, etc: these different types of courses contain different mixes of the various kinds of educational aims, and must therefore be designed differently.
- 2) An explication, based not only upon psychological research but also upon distance teaching experience, of the various ways in which people learn, and can be taught. It has long been clear that, say, knowledge, deep understanding and skills require.
- 3) different learning and teaching strategies. It is also well known that, within these strategies, individuals (e.g. convergers and divergers, visualisers and verbalisers) have their own preferred styles of learning. The use of distance teaching methods that are less adaptable than face-to-face ones, and the expanding demands of adult education, are throwing new light on these general problems.
- 4) An explication of the pedagogic capabilities and limitations of different distance teaching methods. These relate not just to the types of educational aims, and types of courses being offered, but also to the subject matter, to their cost in cash and manpower, to their accessibility to students, both physically and psychologically and to their goals.
- 5) An extension of feedback theory, as developed in engineering subjects, to the educational field. Properly used, bearing in mind time delays, etc., the theory can be used to design optimum strategies for the reduction of misunderstanding in students, caused, for example, by errors in course materials, failure to match a course to its target student audience, variations in student ability, etc.
- 6) Applications of information theory and a better understanding of human information processing in the brain, by means of which it will be possible to distinguish between teaching material that is readily acceptable and that which is difficult to read or hear or see or grasp.

The test of effective academic theories of this kind is not so much that they can explain known phenomena, though this is important, but that they can also predict new ones based upon these explanations, in addition, however, in fields such as education, engineering or medicine, professional have to be more than wise both before and after the event. They have to do more than explain and predict successfully and objectively what is going to happen; they have to be able to manipulate both the practical and intellectual elements of their subject to achieve agreed goals. Hitherto, the practice of teaching, whether in school or university, has depended little upon a theoretical understanding of the processes involved. Each teacher has usually had a short 'apprenticeship' working with experienced teachers, and has then had to build intuitively upon his own experience and observation to achieve success. This indeed was how engineering was done 100 years ago and how some aspects that theoretical understanding in these fields can bring about advances that intuition and experience could never have achieved. It can also, of course, oversimplify and make mistakes. But it is difficult to resist the conclusion

these analogies suggest; that the field of distance education could benefit greatly from a deeper understanding of the educational processes involved. The experience of successful face-to-face teaching is helpful for immediate feedback, etc. require much more than experience with face-to-face teaching for their solution. The development of understanding of these problems will establish distance education as a discipline.

That the subject of education and learning is more difficult to study than medicine and the human body, and that medicine is more difficult than engineering, does not mean that a deep theoretical study should not be attempted. Quite, the contrary. Furthermore, there is a vast audience for whom education should be made available, accessible and understandable. Thus not only is there scope for the establishment of a discipline of distance education but there is also a need for it.

